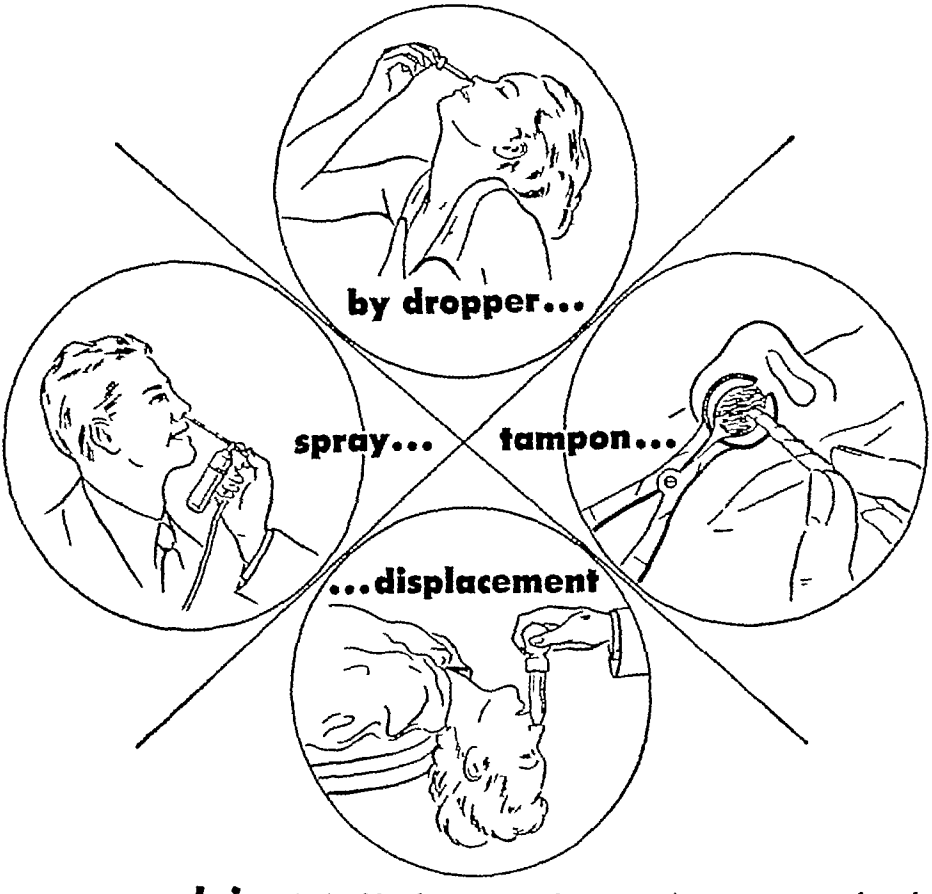
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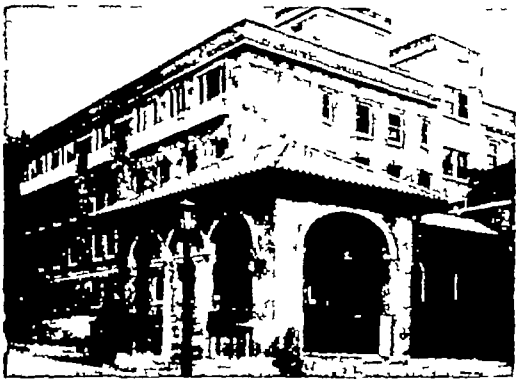
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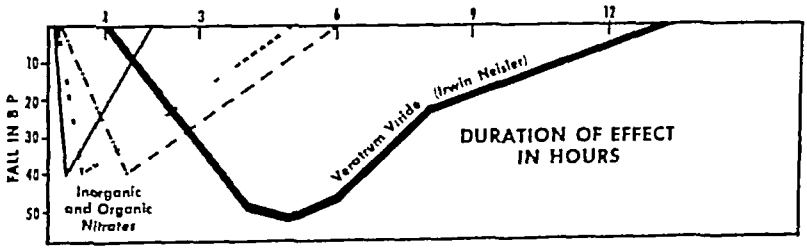
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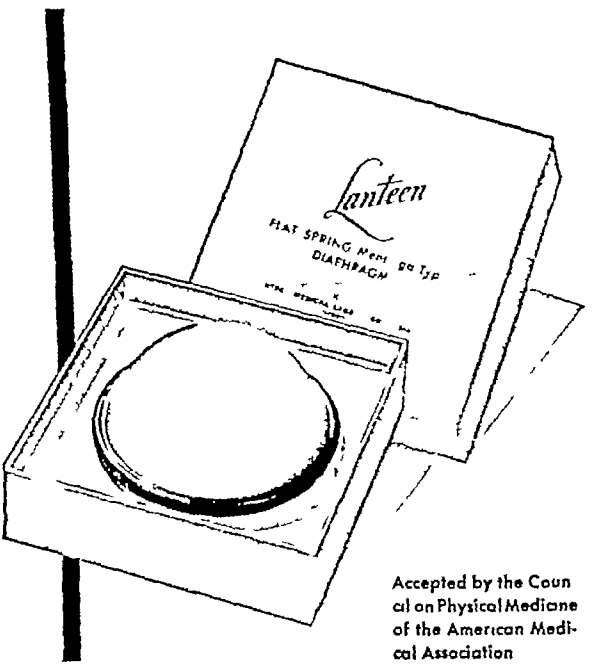
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It Can Happen Here



Example of severe rickets in a sunny clime

LEST WE FORGET—we who are of the vitamin D era—severe rickets is not yet eradicated, and moderate and mild rickets are still prevalent Here is a white child, supposedly well fed, if judged by weight alone, a farm child apparently living out of doors a good deal This boy was reared in a state having a latitude between 37° and 42°, where the average amount of fall and winter sunshine is *equal to that in the major portion of the United States* And yet such stigmata of rickets as *genu varum* and the quadratic head are plain evidence that rickets does occur under these conditions

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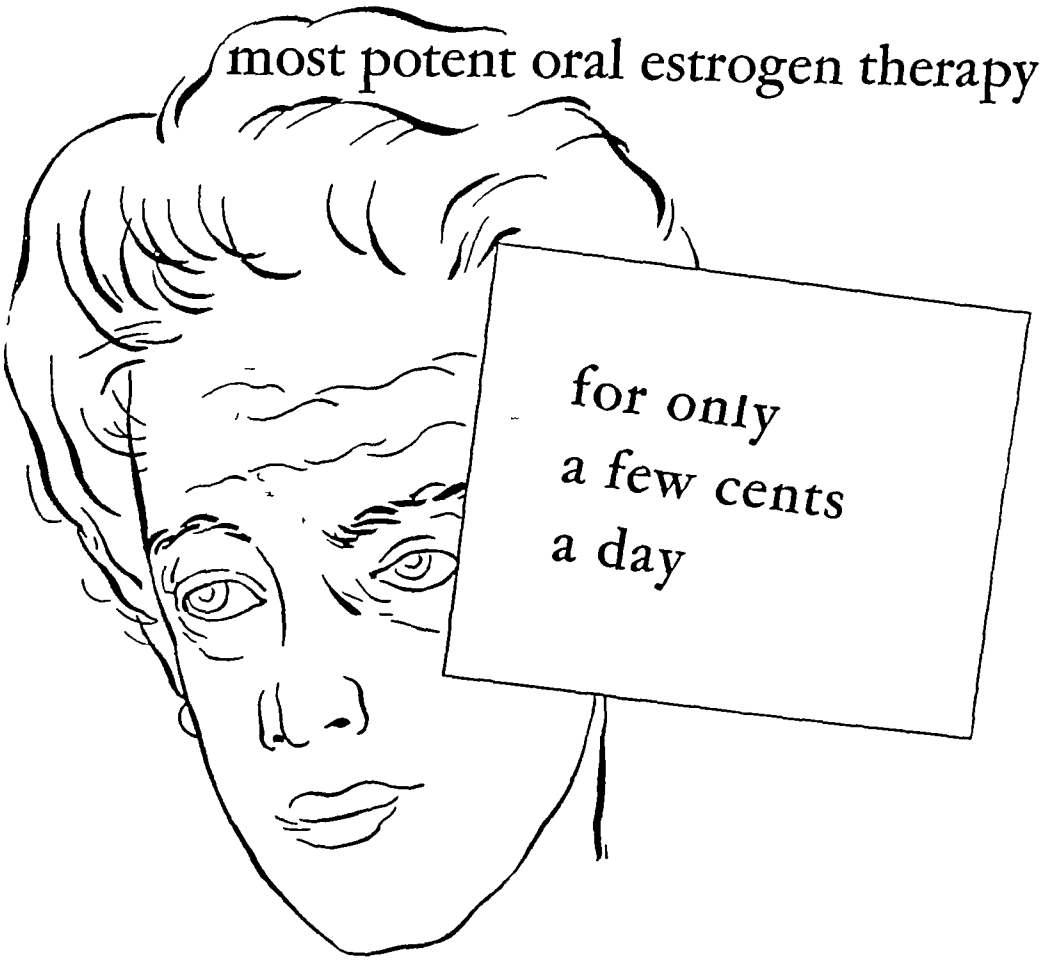
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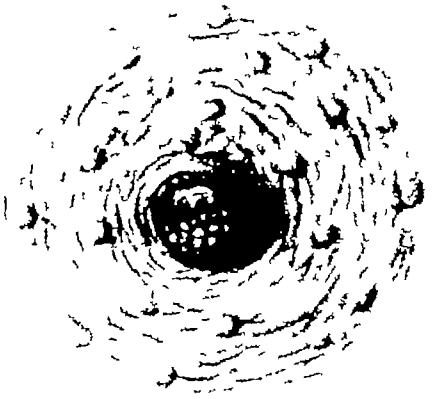
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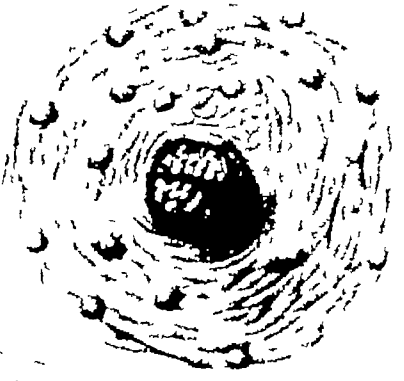


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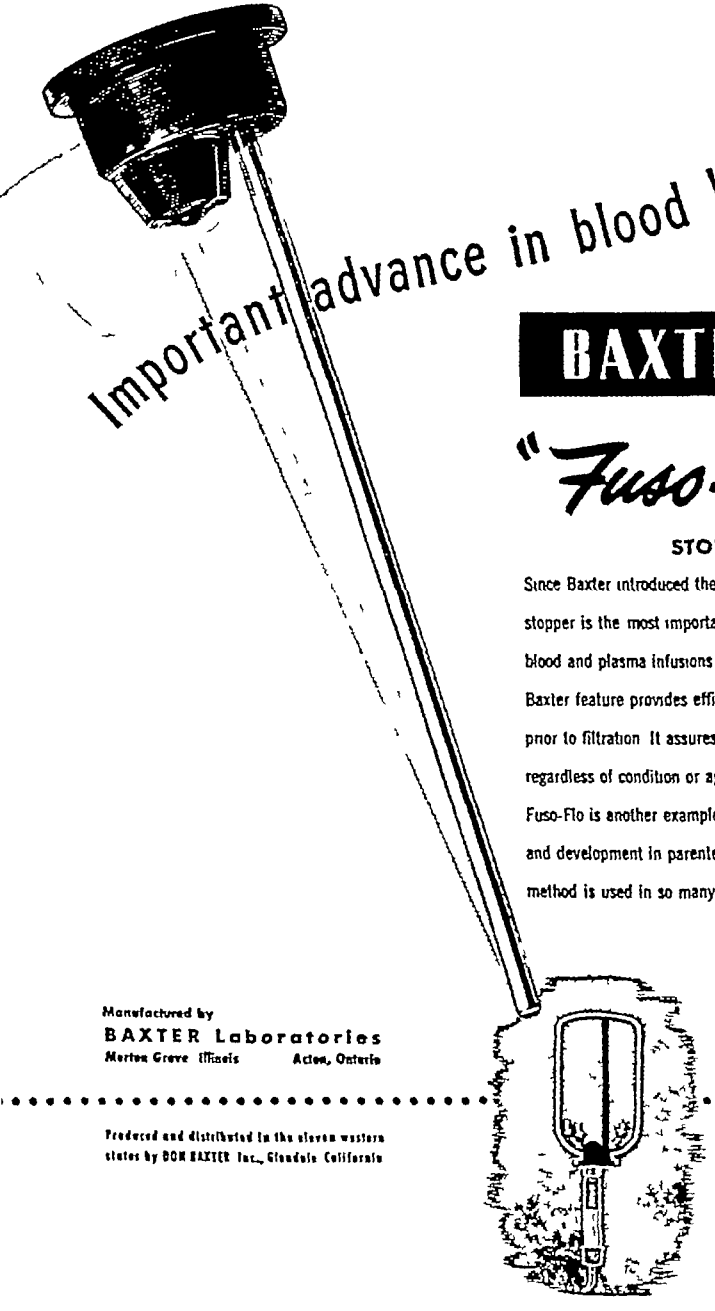
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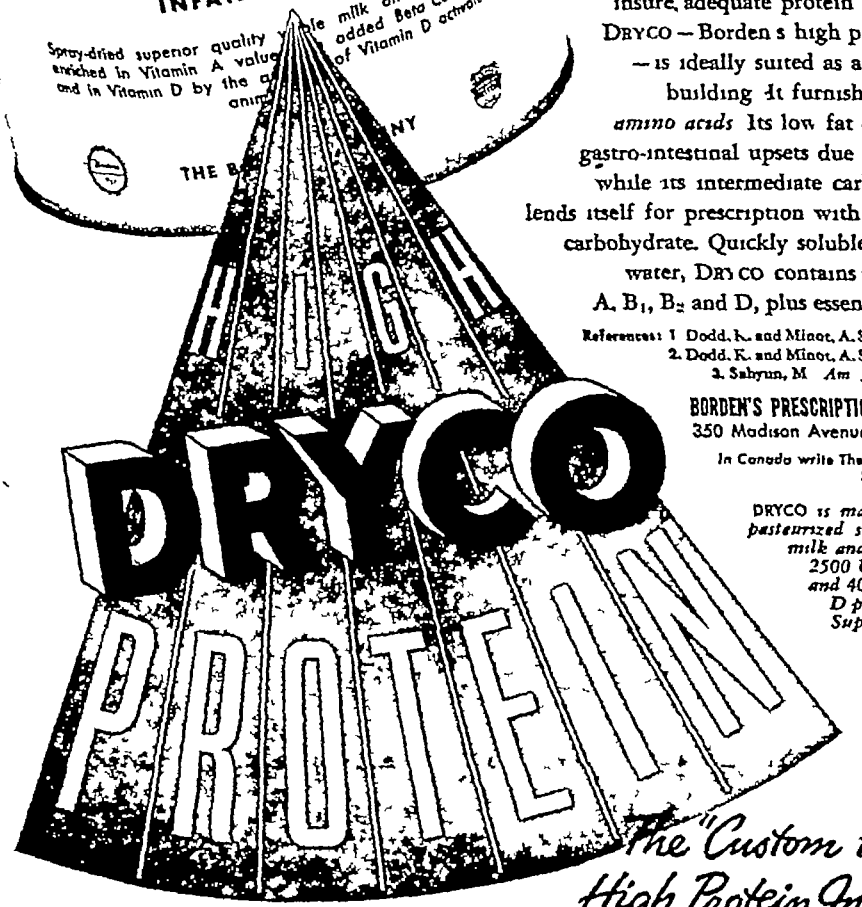
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3. Sabyun, M *Am J Dig Dis.* 13 59 1946.

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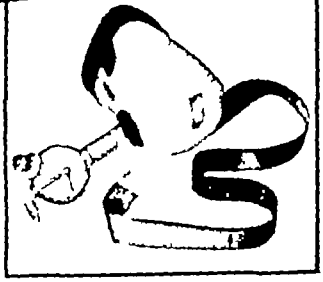
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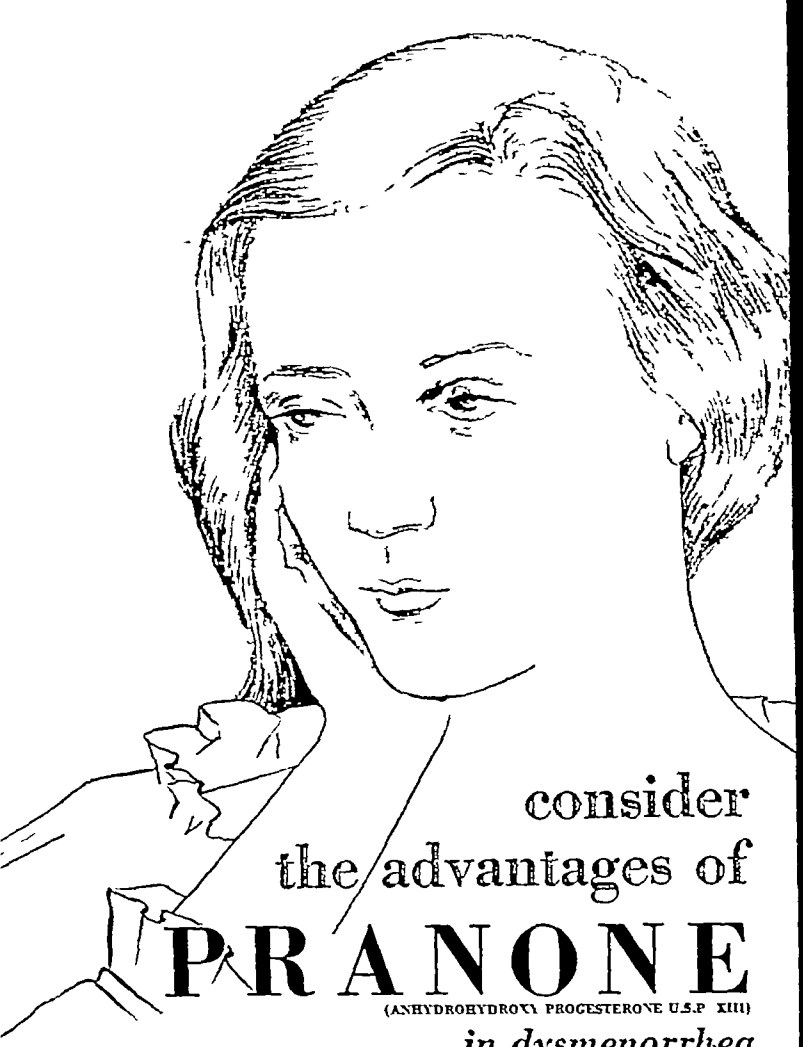


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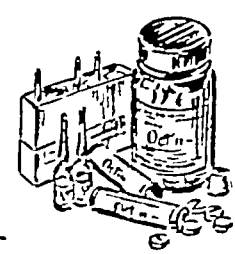
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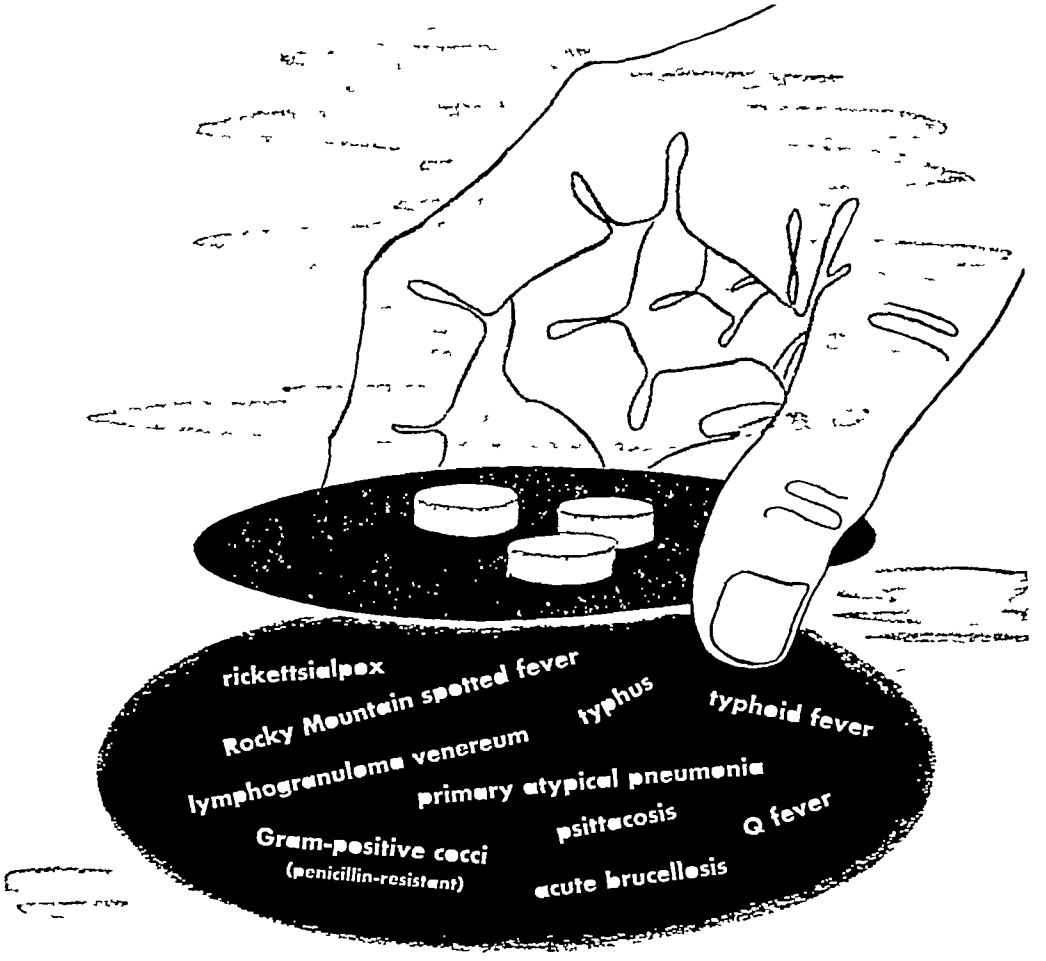
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*Beams, A J., and Endicott E. T., Histologic changes in the livers of patients with cirrhosis treated with methionine Gastroenterology 9 718 735 (Dec.) 1947

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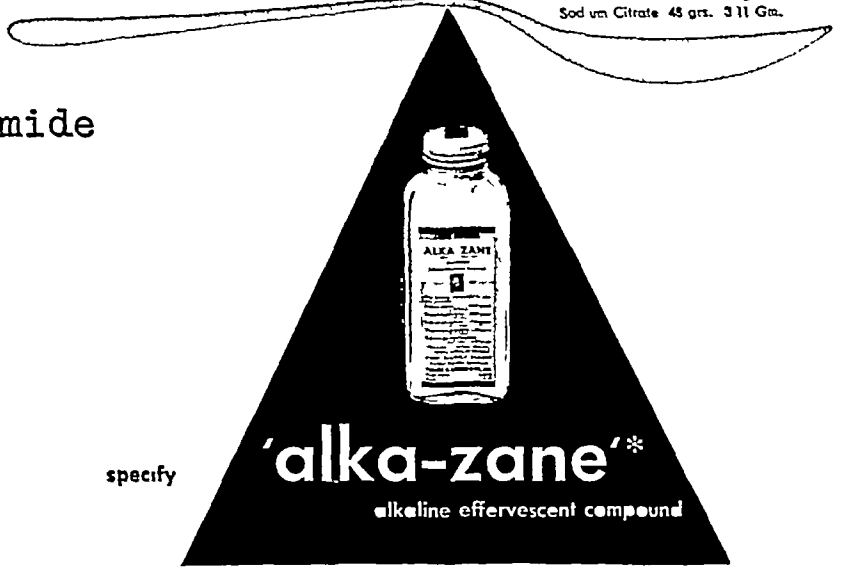
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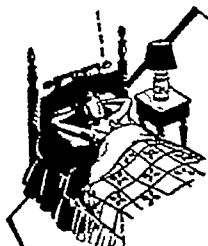
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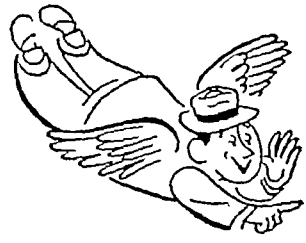
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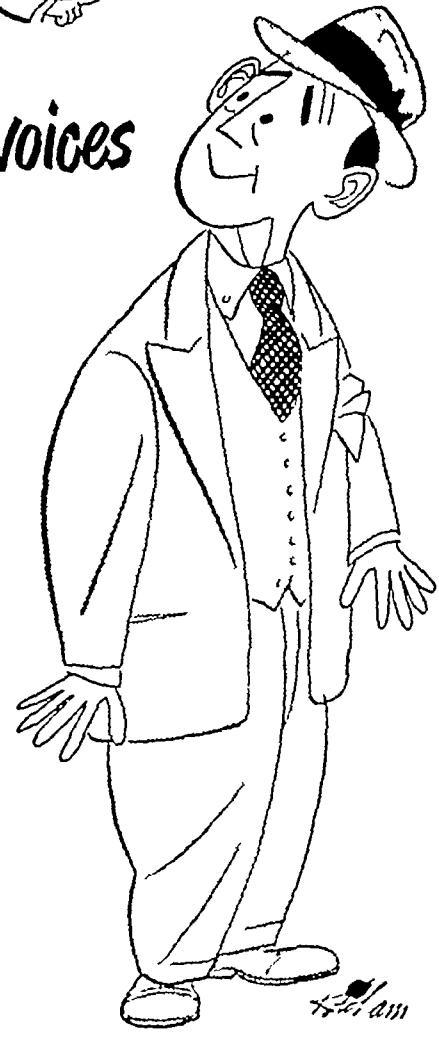
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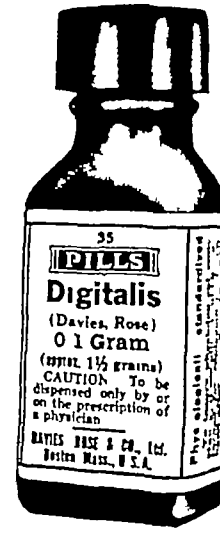
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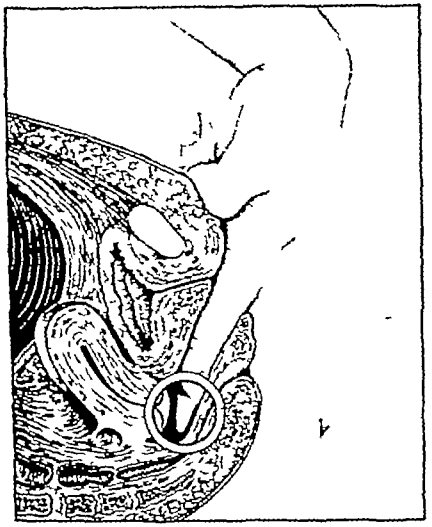
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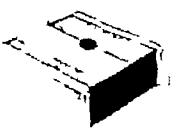
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1 Walter R I, Goldberger M A and Lapid, L S New York State J Med 48 1159 (May 15) 1948

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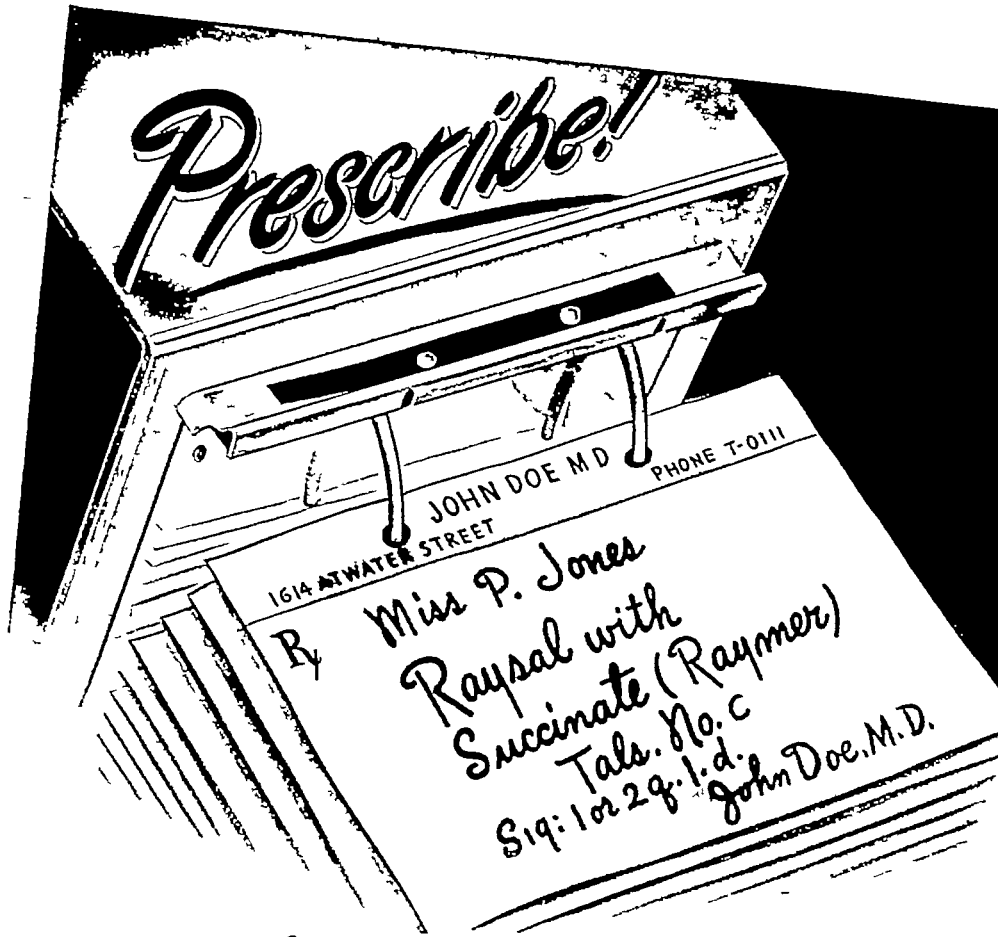
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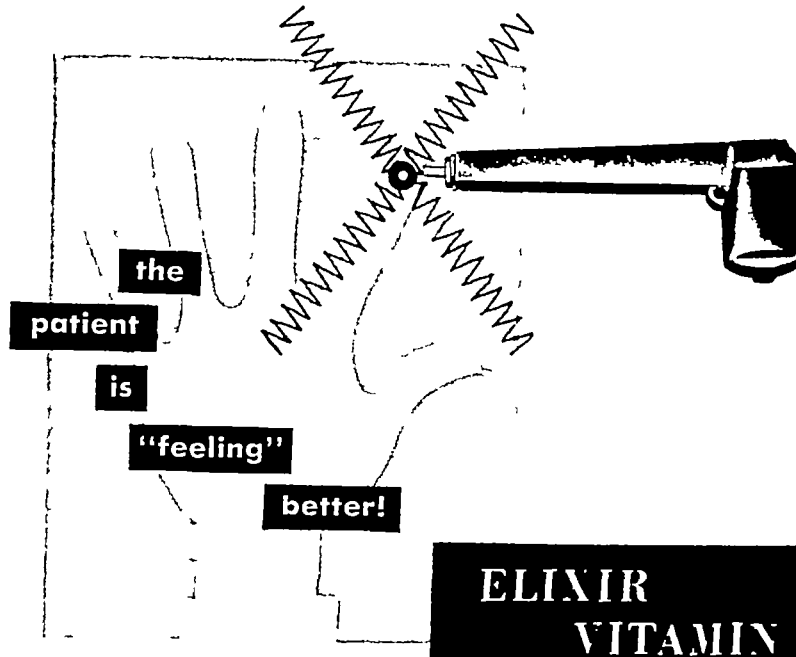
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Therapy 1 teaspoon to 1 tablespoonful T I D as directed

(ELIXIR VITAMIN B COMPLEX-MRT because it is exceptionally palatable, may be taken undiluted. If preferred it may be incorporated into milk fruit juices or any other convenient food base)

ELIXIR VITAMIN B COMPLEX-MRT—HOW AVAILABLE

ELIXIR VITAMIN B COMPLEX MRT is available in 8 ounce, 16 ounce and gallon containers at all prescription pharmacies

References (1) Lewey and Shay Dietotherapy Philadelphia W B Saunders & Co 1945 p 850

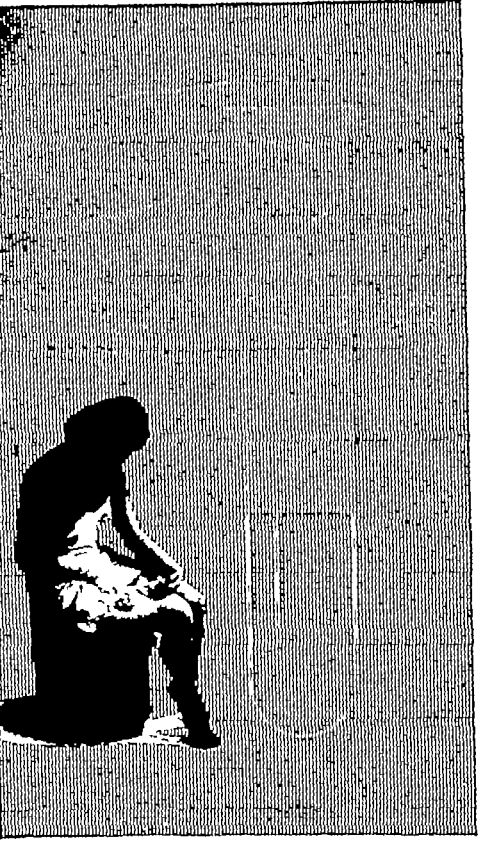
* 2 x MDR ** 1½ x MDR

no coined names *specify* **MRT**

literature and samples on request

MARVIN R. THOMPSON, INC

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The newly diagnosed diabetic and Globin Insulin

WHEN DIETARY MEASURES ALONE cannot control a recently established case of diabetes and insulin must be resorted to, *one daily injection* of intermediate-acting 'Wellcome' Globin Insulin with Zinc will often prove both adequate and beneficial This simplified regimen can be initiated in the following manner

ESTIMATING THE DOSAGE: The simplest method is to start with 15 units of Globin Insulin and increase the dosage every few days, as required A closer estimation is obtained by quantitative sugar determination of a 24-hour urine specimen For the initial dosage, ⅔ of a unit of Globin Insulin is given for every gram of sugar spilled in 24 hours

Both diet and dosage must subsequently be adjusted to meet the needs of each individual patient

ADJUSTING THE DIET: In general it has been found that a good carbohydrate distribution for the patient on Globin Insulin consists of 1/5 of the total carbohydrate at breakfast 2/5 at the noon meal, and 2/5 at the evening meal Any tendency toward midafternoon hypoglycemia may usually be offset by giving 10 to 20 grams of carbohydrate between 3 and 4 p m

This starting diet may subsequently be adjusted as required to suit the needs of the patient Final adjustment of carbohydrate distribution may be based on fractional urinalyses

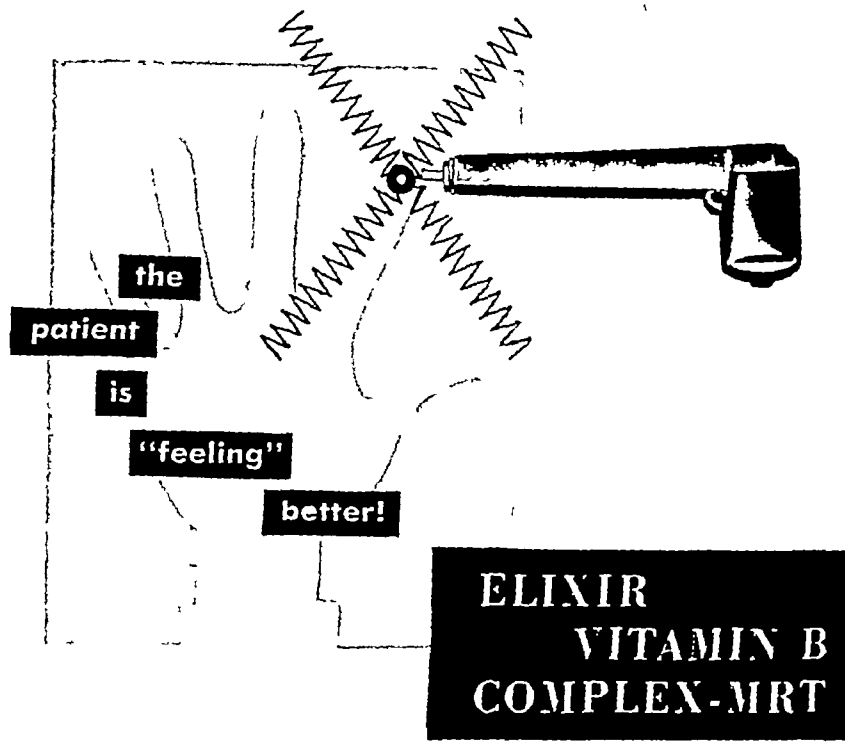
ADJUSTING TO 24-HOUR CONTROL Simultaneously adjust the Globin Insulin dosage to provide 24-hour control as evidenced by a fasting blood sugar level of less than 150 mgm , or sugar-free urine in the fasting sample

'Wellcome Globin Insulin with Zinc is a clear solution comparable to regular insulin in its freedom from allergenic properties Available in 40 and 80 units per cc vials of 10 cc Accepted by the Council on Pharmacy and Chemistry, American Medical Association Developed in The Wellcome Research Laboratories Tuckahoe New York U S Patent No 2,161,198 LITERATURE ON REQUEST

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'WELLCOME' Globin Insulin WITH ZINC

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ELIXIR VITAMIN B COMPLEX-MRT—IN NEUROPATHIES

In a study relative to the management of diabetic neuropathies, a prominent clinician reports a return to 80-85% of normal vibratory sense (Vibrometer readings) in patients—upon whom were used ELIXIR VITAMIN B COMPLEX MRT as the sole therapeutic agent

In marked contrast, cases upon which were employed, 25 highly potent B complex capsules daily, plus 100 mg quantities of B_1, B_2, and niacinamide respectively, responded only to the extent of from 20-25% This established beyond doubt, the superiority of whole vitamin B complex therapy—ideally exemplified by ELIXIR VITAMIN B COMPLEX MRT These conclusions fall in line with the findings of Lewey and Shay[1] who have reported on the futility of attempting curative results with synthetic vitamins in neuropathies, and have stressed the necessity for natural substances to effect remissions

ELIXIR VITAMIN B COMPLEX-MRT—FOR MAXIMUM THERAPEUTIC RESPONSE

ELIXIR VITAMIN B COMPLEX MRT satisfies the strictest requirements for complete and potent B complex therapy, maximum response is assured Your patients will *"feel"* better! Each teaspoonful (5 cc) derived from 19 grams of nature's richest B complex storehouses—liver, rice polishings, brewer's yeast, wheat germ and honey, contains 2 mg B_1*, 3 mg. B_2**, and 20 mg niacin and niacinamide plus rich and balanced amounts of pyridoxine, pantothenate, folic acid, thymine, B_{12}, choline, biotin, and all other B factors, both known and unidentified

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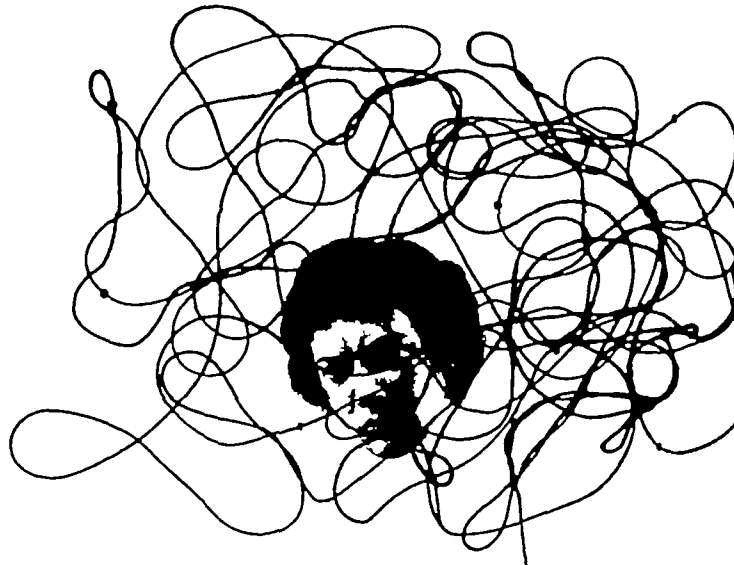
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Ultraviolet irradiation of plasma destroys not only all bacteria but also any viral contaminants that might cause homologous serum hepatitis • You may therefore administer *irradiated* LYOVAC *plasma* without danger of hepatitis • Stable, portable LYOVAC Normal Human Plasma (*Irradiated*) is prepared from fresh, citrated, human blood of healthy donors, according to regulations of the National Institute of Health The plasma is pooled, flash frozen, *dehydrated from the frozen state under high vacuum* (lyophile process), and sealed under vacuum • *Blood substitute of choice for emergencies*, irradiated LYOVAC plasma is quickly restored, needs no typing or crossmatching, and each unit is osmotically equivalent to two units of whole blood • LYOVAC Normal Human Plasma (*Irradiated*) is supplied in vacuum bottles to yield 50 cc., 250 cc. and 500 cc. of restored, *irradiated* normal plasma, or smaller quantities of *hypertonic* plasma. Sharp & Dohme, Philadelphia 1, Pa.

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Normal Human Plasma IRRADIATED



To re-establish emotional equilibrium

'Benzebar' combines the effective anti depressant action of Benzedrine* Sulfate and the mild sedation of phenobarbital

The 'Benzedrine' Sulfate in 'Benzebar' restores optimism, cheerfulness and sense of well-being, increases mental activity and interest in life, imparts a feeling of energy and alertness

Simultaneously, the phenobarbital component calms nervous excitability and agitation, relieves anxiety and tension

Thus, 'Benzebar' is valuable in the symptomatic treatment of the depressed patient who displays anxiety or agitation



Benzebar

a logical combination of 'Benzedrine' Sulfate (5 mg) and phenobarbital (¼ gr)

Smith, Kline & French Laboratories, Philadelphia

*T M Reg U S Pat Off for racemic amphetamine sulfate, S K F

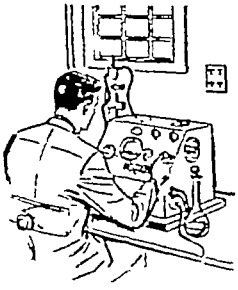


Framable reprints of this illustration are available



THE MEN RESPONSIBLE FOR MRS. BROWN'S BLOOD COUNT





You, the physician, are ultimately responsible for the successful management of patients afflicted with pernicious anemia. You and your assistants carefully determine the patient's response to measured doses of liver extract, but back of that is the responsibility of the men who make the product

It is reassuring to both physician and patient to know that the liver extract employed has met exacting standards before release

Fresh frozen liver is handled in abattoirs according to Lilly specifications and is checked by skilled Lilly inspectors before acceptance The frozen liver is then ground and extracted in equipment designed by Lilly engineers Lilly liver extracts, whether for parenteral or oral administration, are assayed on hospitalized pernicious anemia patients in relapse by clinicians experienced in hematology Thus, from the grinding of the frozen liver to the final packaging and inspection, the production of Lilly liver products is supervised by competent specialists They, too, feel deeply their responsibility for Mrs Brown's blood count

Lilly

LILLY SPECIALISTS SERVE THE MEDICAL PROFESSI

Renal protection, *so urgently needed in sulfonamide therapy, is ensured two ways by Citrasulfas* M*

1 *It protectively contains two independently soluble sulfa drugs (sulfadiazine and sulfamerazine)*

and also

2 *protectively contains sodium citrate to increase urinary sulfonamide solubility*

—a double guard against crystalluria

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CITRASULFAS M

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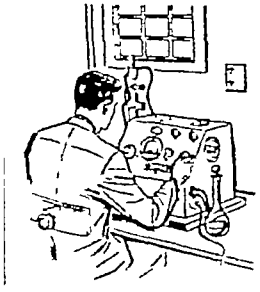


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LILLY SPECIALISTS SERVE THE MEDICAL PROFESSION



Complete Therapy for Pernicious Anemia

Potent liver extract is the only substance which has been proved to provide complete therapy for macrocytic anemias The concentration of all Lilly liver extracts is such that the amounts contained in the recommended daily dose will, in the average uncomplicated case of pernicious anemia in relapse, produce a standard reticulocyte response and cause the red blood-cell count to return to normal within a period of sixty days This standardization is in accordance with the recommendations of the United States Pharmacopoeia Anti Anemia Preparations Advisory Board

Lilly injectable liver extract preparations include—

Liver Extract Solution, Crude, Lilly, in strengths of 1 and 2 injectable U S P units per cc

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Lilly

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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 49 JANUARY 1, 1949 NUMBER 1

Editorials

The Annual Meeting

The Medical Society of the State of New York will hold its 1949 Annual Meeting at the Hotel Statler, Buffalo, from May 2 to 5, inclusive. You are asked to note these dates *now* on your brand new calendars or in your diaries, for even "if winter comes can spring be far behind?"

Accommodations will be necessary for those who plan to attend from other parts of the State. Reserve yours now and make arrangements to come for as many days as you can. Your Convention Committee and the Subcommittee on Scientific Exhibits have been working hard to assure you of an interesting meeting. Do not let them down. For your own information, and in appreciation of their efforts to bring you the latest and best in their power to obtain, come to the Annual Meeting. See your old friends there, make new ones, let the commercial exhibitors, our good friends who make the meeting possible, show you what is new to help you practice modern medicine.

Make your reservations early.

The $64 Question

In these days of popular, even if boresome, radio quizzes, it has become customary to regard the $64 question, when successfully answered, as the one that hits the jack pot. It is noteworthy that the customer progresses by stages to the $64 question and is entitled to try for this only after he has correctly answered a series of questions having less monetary value.

The same set of conditions might be said to be applicable to the use of the laboratory in the diagnosis of disease. In approaching a diagnostic problem, the clinician frequently finds it necessary to invoke the aid of laboratory methods in his attempt to hit the jack pot. In the course of his study of the history and clinical findings, certain leads emerge, entailing the use of the x-ray and the clinical

laboratory for the purpose of confirming or excluding certain of the clinical facts and arriving at a diagnosis His approach to the use of these ancillary methods will depend in a large measure on his familiarity with laboratory methods, their simplicity and economy of approach, and the limitations of the respective methods available in his hospital laboratory, as well as on the intrinsic complexity of the problem itself If he be sufficiently well versed in the art of using the laboratory, obviously he might be able to obtain the solution of his problem by asking simply the $2 or the $4 question only On the other hand, if he uses a less precise approach, not uncommonly he unwittingly asks the $64 question first To cite a familiar example—suppose his problem is that of lymph node enlargement The clinician familiar with laboratory methods will invariably request first a complete blood count, which often supplies the immediate answer if the case be one of leukemia This diagnostic answer is forthcoming at the simplest level of laboratory investigation at a minimum of cost to the patient and expenditure of laboratory time and resources, and might be compared to the $2 question

His first attempt, however, might not be successful, but unlike the radio quiz, he is entitled to try for more This he does by asking the $4 question—in other words, he requests a bone marrow biopsy which, if it shows evidence of leukemic infiltration of the marrow, will establish his case as one of aleukemic leukemia at a relatively low cost of laboratory effort and expense If, on the other hand, the biopsy is negative, then he is faced with the consideration of investigating directly the enlarged lymph nodes This he might do by means of an aspiration biopsy, a method of little expense and inconvenience, but one which is fraught with a certain amount of diagnostic uncertainty because of its intrinsic limitations At this point his decision should be influenced by his clinical knowledge of the history and the physical findings in the case For example, if the lymph node enlargement be of a regional nature only, he might entertain the diagnosis either of primary lymphoid disease or metastatic disease from a clinically unrecognized primary focus If the latter be the case, an aspiration biopsy should have little difficulty in establishing the metastatic nature of the process, because the cells examined by the pathologist will have a morphologic pattern entirely foreign to that of the lymph node and for that reason be readily diagnosable This is best exemplified in enlargement of the cervical lymph nodes where the microscopic picture of metastatic carcinoma is readily recognizable from the aspirated material, but where often the primary growth cannot be predicted with certainty, the two most common primary lesions being lymphoepithelioma of the oropharynx and carcinoma of the lung Thus the aspiration biopsy has partly answered the $8 question but poses in turn another question, the answer for which must be sought through the aid of the otolaryngologist in his search for the primary tumor and the radiologist in his study of the lung, approaches which savour of the $64 question and which should not be undertaken until clear indication exists as to their need and after the simpler possibilities first have been exhausted

On the other hand, great diagnostic difficulty might be encountered by the pathologist if the cells are found to be of the lymphocytic series, as aspiration biopsies of primary disease of the lymphoid system carry a definite percentage of diagnostic error even in the hands of the experienced pathologist Thus the clinician might be denied an answer to his $8 question and has to try for the $16 question, namely, the surgical removal of the entire lymph node for pathologic examination in order to make a final diagnosis

The above example illustrates the value of teamwork in the diagnosis of disease and emphasizes the intelligent step-by-step economical method in the use of the laboratory It is a tailor-made approach to the individual diagnostic problem in contrast to the more wasteful and less thoughtful method where "routine" laboratory work is ordered on a patient irrespective of the particular problem For one thing, this latter method makes for a more superficial investigation, as the ordering of routine diagnostic laboratory work savours of the "Let George do it" mental attitude, where the clinician evades

his prime responsibility calling for an analysis of the problem with its consequent tentative diagnostic possibilities, to be sifted and refined by further specific laboratory or clinical examinations, and becomes instead the recipient of a sheaf of laboratory reports from which he tries to abstract information that might be pertinent to the case Apart from the economic wastefulness of this approach, there is the even greater danger of diagnostic error, for conceivably with the use of "routine" laboratory tests, he might have failed to order the one single and less frequently used test that would provide him with the diagnosis

Laboratory studies are thus simply aids in the diagnosis of disease, to be used with forethought and precision if the $64 question is to be answered

Many other situations have a similar import—a woman presents a symptom of vomiting and a gastrointestinal series is ordered rather than asking the question when the last menstrual period occurred Perhaps certain aspects of medical education are at fault, especially in the case of recently graduated residents, by whom a so-called "work-up" has become a routine order Perhaps it would be well to go back to the old teaching of "feel, look, and listen"

Current Editorial Comment

Doctors and the Income Tax Physicians may have overlooked in the United Medical Service Bulletin for April, 1948, the following notice

> *Income Tax Returns* The Collector of Internal Revenue has directed United Medical Service to make report of payments to physicians under the provisions of our contracts The administration of this regulation makes necessary for us to assign a code number for each physician Watch for a communication which will be mailed to you within the next six weeks you are familiar with such reports if you do "compensation" cases A copy of the report which we shall make to the Collector will be mailed to you in January, 1949, reporting 1948 payments to you by UMS

The editors of this JOURNAL again bring it to your attention All physicians will by now have received a key-ring tag with the assigned number which must be used on certificates in claim reports

In this issue, on page 80 will be found a special article "Are Physicians Particularly Suspect of Tax Fraud?" The editors feel that, while the answer is "No," this article is exceptionally informative and may serve to bring to the attention of many physicians deficiencies in the keeping of their office books which may cause their income tax returns to fall under particular scrutiny by the Bureau of Internal Revenue We advise all our readers to study this article carefully and to have it in mind in preparing future tax returns

Physicians' Home The report of the president of the Physicians' Home, Dr Charles Gordon Heyd, at the annual meeting of the organization, held October 19, 1948, at the offices of the State Society, contained the following items of interest Four main types of service are stressed (1) by making cash contributions to the "guests" through the treasurer of the local county medical society where the beneficiary resides, (2) where the doctor and his wife are living together, to provide adequate funds for the maintenance of the home, (3) to provide transportation of "guests" to relatives in distant parts of the United States, and (4) to provide funds for emergencies

The activities of the Home are carried out by a Board of Directors numbering 27 and nominated by the Medical Society of the State of New York The sources of income are from contributing annual members, now 509 in number, voluntary assessment made by State Society members, now amounting to $10,894, bequests by wills and individual donations The receipts for the past year were $26 244, disbursements $14,303, leaving a surplus of $11,940 It was possible to add $6,000 to the capital account A bequest from the estate of Leon F Gurniques, M D , was received

DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health
William A Brumfield, Jr , M D , Editor

Revised Certificates of Birth, Stillbirth, and Death

Revised forms of birth, stillbirth, and death certificates have been put into use in the State, outside of New York City, beginning January 1, 1949 Local registrars of vital statistics will provide all practicing physicians, hospitals, and undertakers with supplies of appropriate forms, and, when these are received, all of the old forms on hand should be destroyed

The changes in the content and arrangement of the birth and stillbirth certificates were made largely to provide more space for some of the entries and to eliminate sources of ambiguity One item was added (on the face of the stillbirth and on the reverse of the birth certificate) which reads "Was mother's blood tested for Rh factor? Yes ——No—— If yes, was blood Rh^+—— Rh^-—— ?"

The death certificate has also been rearranged and some of the phraseology modified for greater clarity Of special importance is the form of medical certification reproduced below (Table 1), which was adopted by the member countries of the World Health Organization at the conference held in Paris, April 26 to 30, 1948, and their agreement upon a uniform procedure for the tabulation of deaths according to cause

TABLE 1 —MEDICAL CERTIFICATION OF CAUSE OF DEATH

			Interval Between Onset and Death
I	Disease or Condition Directly Leading to Death This does not mean the mode of dying such as heart failure asthenia etc It means the disease injury or complication which caused death	(a)	
		Due to (b)	
	Antecedent Causes Diseases and conditions if any giving rise to the above cause stating the underlying cause last	Due to (c)	
II	Other significant conditions contributing to the death but *not related* to the disease or condition causing death		

This conference also agreed on a uniform procedure for the tabulation of deaths according to cause The problem of classification is simple when only one cause is involved However, in many cases two or more conditions contribute to the death In the past the selection of the "primary" cause was governed largely by statistical rules which differed from country to country The basic consideration from a standpoint of the prevention of deaths is, of course, the disease or condition which initiated the chain of events leading to death In the new procedure the tabulation of deaths will be based, as it should, on the judgment of the certifying physician When his statements are entered in consistent and logical order, the selection of the underlying cause of death will become a matter of simple reference

In the past, the selection of the primary cause was governed largely by statistical rules Since, however, from the point of view of the prevention of deaths, it is basic to determine the underlying cause which initiated the trend of events leading to death, one should in all logic depend upon the judgment of the certifying physician for the answer, and it is this procedure that will now be followed If the physician enters a single cause (under I-a), then the business of classification is simple, if he enters two or more causes, then the one entered last (under I-b or I-c) will be considered as the underlying cause and the death ascribed to it The "other significant conditions" given in II will be used in connection with, but not in place of, the statements given in I, they may permit a refinement of a more generalized statement of the underlying cause

If every physician will bear this fact in mind and make the entries in the medical certification in consistent and logical order, then we may hope that in the forthcoming years the mortality statistics more and more adequately will picture the bodily and mental ailments of the people in terms of current medical science and current medical practice

The President's Page



HAPPY New Year to every member of the Medical Society of the State of New York! The year 1949 can be a joyous one for anyone who carries in his heart the seeds of happiness, good will, and contentment and who nurtures them diligently The medical profession should be a happy profession, because it strives unceasingly for the relief of suffering, not always as successfully as we would wish, but, nevertheless, with sympathy and intelligence This striving is a privilege not accorded to all men, but to a relative few who are willing to travel the long road of learning and discipline toward the goal of greater human health, happiness, and well-being

The medical profession, as it commences the new year, should find joy in the realization of what miracles it has accomplished in the conquest of disease, and pray that, even though there is plenty yet to do, more knowledge and better tools will ever be added with which to do it

Although the Declaration of Independence guarantees to us only the pursuit of happiness, that in itself is a tremendous privilege We have had portions of happiness in our hands for many years, still have them in fact, and the continuing pursuit of it can well be favored by the purposeful adoption of certain attitudes We are happy to be living in one of the greatest countries on this globe—a land of plenty, still a great land of opportunity, and an oasis of peace in a troubled world

The medical profession has been privileged, in this free atmosphere, to develop and grow great in its accomplishments and in its prestige There are greater goals for us still, and our responsibilities will be ever greater

Our responsibilities, our rewards, and our rights and privileges are intimately intertwined Our responsibilities, however, come mainly from within ourselves, while our rights and privileges, although partly inherent to us as citizens, must come, in large measure, from without The responsibilities of the medical profession will continue to be discharged in our traditional manner—by ever improving our technics, by seeking ever higher standards, educational as well as ethical, to the end that the patient, our ultimate object of solicitude, will have the best care in the world Our rewards for service should ever emanate from the pattern handed down by our forebears who did not measure them by fine scales or double entry bookkeeping Their adequacy was assured by giving always twenty ounces to the pound, and by adding charity as flavoring

Our rights and privileges, coming as they do from without, are not ours alone, but belong likewise to our patients It is our duty to protect these rights, not only for ourselves, but for them, and to fight for them with all our strength, for they are fundamental to freedom, and to the preservation of the attitudes and ideals that have made this country of ours unique in history

We know that, as a result of his education and training, the doctor is psychologically conditioned to heal His greatest satisfaction lies first and foremost in healing The will to heal becomes part of him On the other hand, there is developed in the patient, who has freedom, individual responsibility, and rewards, the will to get well Bring these forces together—the will to heal and the will to get well—and you have the power that has made American medicine great

Take away, under bureaucratic supervision and control, the will to heal, and take away with liberty, the will to get well, and replace it with the will to malinger—and the result is government medicine The latter would be the ultimate in disaster to the patient, and it is our duty to bring this fact home to him We must do our part to prevent it happening

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FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

A New Approach to the Rheumatic Fever Problem

At this time of year, when recurrences of rheumatic fever begin to appear in larger numbers, physicians again review what measures may be adopted to reduce the incidence of recurrence of rheumatic fever among their rheumatic patients During the last decade hopes have been high at times, only to fall on realization of the dangers of the methods advocated *It is the purpose of this* page again to give hope to the physician whose chief aim is prevention of rheumatic recurrences, for he knows that severe cardiac damage is the result of repeated rheumatic relapses

Along the road travelled in the search for the cause and prevention of rheumatic fever there have been many discards, but significant milestones remain The first of these was the fact that the hemolytic streptococcus in all likelihood played some part in the development of the disease [1,2] This led to attempts, through isolation or chemotherapy, to prevent streptococcal infections in patients who had recovered from one or more attacks of rheumatic infection

Beginning in 1939 another milestone was passed when the effectiveness of prolonged sulfonamide administration in preventing the disease through control of group A hemolytic streptococcal infections was demonstrated [3,4] However, the reports of the toxicity of sulfonamide drugs, together with the warning of Rich of possible sensitization which could result in development of periarteritis nodosa, dampened the enthusiasm of many clinicians and undoubtedly will restrain many others until the risks are clarified [5,6] In addition, the demonstration of definite evidence of a sulfonamide resistant strain of group A hemolytic streptococci, appearing during the course of sulfadiazine prophylaxis at a large naval training station, was cause for some loss of confidence in the method [7]

Fortunately, other milestones appear on the road which offer hope of replacing those lost through the toxicity of sulfonamide drugs These are the effects of environmental living conditions on the course of the disease Taran, in a 1941 report, pointed out that many factors in the living conditions were important in that they could vitiate the improvement made during convalescent carditis [8] He divided living conditions into three groups—(*a*) good—where there was an adequate budget, a well-balanced diet, ample clothing in winter, sensible maternal care, and dry sunny sleeping quarters, (*b*) fair—where two of the above factors were lacking, and (*c*) poor—in which three or more factors were lacking In a careful study of recurrence rates only one eighth of group (*a*) had recurrences, one fifth of (*b*), but one half of group (*c*) The incidence of rheumatic recurrence during observation was four times as high in the poor environment as in the good one

It has long been suggested that economic, sociologic, and dietary factors are concerned in some way in the etiology and recurrence of the disease *The above study gives emphasis to that point of view* In 1943 another milestone was reached by Coburn and Moore who gave positive evidence of the relationship between adequacy of diet and the susceptibility of the host to rheumatic fever [9] They were of the opinion that one of three factors in the genesis of the rheumatic state is the conditioning of the host by a poor diet Coburn and Moore's speculations are based on a statistical comparison

The future will disclose dangers—it may be that it is the business of the future to be dangerous We must meet these dangers with honor and integrity The future will see many changes in the distribution of medical care We have had many—none of them catastrophic We must adapt ourselves to change whenever it is necessary for the welfare of the patient Narrow consideration for ourselves will have to be abandoned whenever it is best for him Conditions may change, but principles never

We are facing the new year, and, in spite of all, we have reason to be happy Let us never lose faith in our patients—in the man in the street Our economic destiny may be in his hands I know he can distinguish between gold and dross Our spiritual destiny and our marks of quality, however, are in our own hands So let us have a courageous outlook as we begin the new year!

LEO F SIMPSON, M D

PRIZE ESSAYS

The Merrit H Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 2, 1949, in Buffalo

The Lucien Howe Prize of $100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology The author need not be a member of the Medical Society of the State of New York.

The Merrit H Cash Prize of $100 will be given to the author of the best original essay on some medical or surgical subject Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State.

The following conditions must be observed

Essays shall be typewritten or printed with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device The essay shall be accompanied by a sealed envelope having on the outside the same motto or device, and containing the name and address of the writer

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct"

All essays must be presented not later than February 1, 1949, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York

ARMITAGE WHITMAN, M D , *Chairman*
Committee on Prize Essays

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

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of dietary intakes of 50 children, with no rheumatic history, from a private school located in a section of the city where there was a high incidence of the disease, with those of 40 ambulatory rheumatic patients Twenty-five of the latter children appear "more susceptible" because of recrudescence during the two years preceding the study, the remaining group was labeled "less susceptible" because of no recrudescence in two to ten years They found that deficiencies in several dietary factors, notably protein, iron, vitamin A, and possibly calcium and riboflavin, were related to higher susceptibility in the host rather than any single dietary component

The most recent work which supports the concept of Coburn and Moore is the contribution by Jackson *et al* of Iowa [10] They made a careful study of recurrence rates in rheumatic subjects who received special advantage in diet and environmental care but did not receive sulfonamide drugs Included in the study were 266 children who met the requirements of having a certified diagnosis of rheumatic fever Those patients were instructed in the therapy prescribed by the clinic and were under the observation and supervision of the clinic for some time after the disease had become inactive

The age specific recurrence rates of the Iowa-treated group which had careful instruction in adequate diet and good environmental care shows a significant deviation from the natural course of the disease An analysis of recurrences in relation to environmental care indicated that dietary care was the most significant protective factor Social care showed some relationship, but no correlation with economic resources was obtained

Jackson concluded that, if the disease is definitely inactive, an excellent diet plus wholesome living conditions will practically eliminate the chances of recurrence with carditis, and that sulfonamide prophylaxis is not indicated for children recovered from rheumatic fever unless they have definite valvular heart disease or cardiac enlargements and are forced to live in an environment which does not provide a good diet and at least a fair level of general care

The majority of children studied were receiving inadequate diets at the time they developed the attack of rheumatic fever which brought them under observation. The degree of deficiency of the diet was related to the incidence and degree of heart damage The diet as a whole is important, but the most commonly deficient nutrients were protein, vitamin D, thiamin, and the minerals

Jackson points out that rheumatic families who have been helped to provide a high level of environmental care for their children should have fewer siblings who develop the disease, and that among the next generation of children there should be a lower incidence of rheumatic fever

This study indicates that every effort should be made toward improvement of the general living conditions of rheumatic children This involves a different concept of prophylaxis and calls for different skills. It requires much more time, knowledge, and patience to instruct a mother how to care for and feed her child than to instruct her in giving medication Where formerly the physician and his nurse or technician could prescribe chemotherapy for prophylaxis and observe patients for toxicity, planning for proper environmental care and adequate diet for the rheumatic child calls for additional personnel This sociologic approach requires contribution from public health nurses, nutritionists, and medical social workers The role of the physician is broadened further as he becomes more concerned with education His prestige is enhanced through community service and he continues as captain of the team of workers whose objective it is to protect the rheumatic child *Medicine will do well to pause* for thorough exploration of this recent milestone in rheumatic fever control

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BACTERIAL FILTRATES AND AUTOGENOUS VACCINES IN THE TREATMENT OF CHRONIC SINUS DISEASE AND OTHER CHRONIC RESPIRATORY AFFECTIONS

Preliminary Report

HUGH M KINGHORN, M D , GEORGE E WILSON, M D , and MORRIS DWORSKI, B S , Saranac Lake, New York

THERE are some conditions of the respiratory system which often do not respond to the usual therapeutic measures, either medical or surgical We have endeavored to treat these intractable conditions with a bacterial filtrate and an autogenous vaccine

The diseases studied and treated by us are as follows

1 Chronic sinus disease and chronic nasal catarrh
2 Patients with cough and expectoration still present after a partially successful pneumothorax treatment or thoracoplastic operation
3 Patients with pulmonary tuberculosis with troublesome cough and sputum and in whom no surgical procedure could be employed
4. Bronchiectasis
5 Allergic bronchitis

Technical Procedures

Preparation of Bacterial Filtrates and Autogenous Vaccines —Cultures by means of swabs are taken from both posterior nares or from the sinuses and are grown as we shall now describe for the preparation of bacterial filtrates and vaccines from sputum

The patient is instructed to have the teeth and mouth as clean as possible The mouth is rinsed with sterile water before expectorating The sputum should be coughed up and not procured simply by clearing the throat, that is, the patient should submit a specimen of sputum which comes from the bronchial tree The morning specimen of sputum is preferable, and the second or third expectoration is apt to be freer from mouth contamination than the first Sterile flasks with large mouths are useful to receive the sputum The specimens are sent as soon as possible to the laboratory and, if the examiner is not there, are put at once into the ice chest If possible, smears from the sputum should be made at the bedside to stain for spirochetes

To obtain cultures, a small amount of selected portion of sputum is washed in four to six changes of sterile 0 85 per cent sodium chloride in Petri dishes The washed particles are streaked on blood agar plates and on Sabouraud's agar and placed in dextrose broth and in thioglycollate broth for anaerobes The following smears are prepared Ziehl-Neelsen, gram, Fontana, and 20 per cent potassium hydroxide hanging drop for mycotic organisms

To obtain the discharges from the sinuses and postnasal spaces, the help of the laryngologist is often necessary The discharges are collected on swabs and are handled as with the sputum, except that washing with salt solution is omitted

At the end of twenty-four or forty-eight hours the cultures are examined The organisms are subcultured and identified Usually, all of the types of organisms grown are utilized in preparing vaccine and bacterial filtrate The following procedure is employed

1 The isolated organisms in pure culture are grown separately in dextrose broth flasks for forty-eight hours at 37 C

2 The growth is then centrifuged for thirty minutes at 3,000 revolutions

3 The supernatant fluids of all cultures are mixed and poured into flasks and saved for the preparation of sterile bacterial filtrate

4 Each bacterial sediment is suspended in salt solution (0 85 per cent) and poured into

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Ophthalmology and Otolaryngology May 21 1948.

separate test tubes containing glass beads The tubes are sealed and shaken by a machine until an even suspension is obtained

5 The shaken suspension is filtered through a cotton filter to remove any clumps

6 The number of organisms in each separate shaken suspension are counted in the hemocytometer (a Hauser-Petroff counting chamber) and usually diluted so that each cubic millliter contains 40 billion organisms From these concentrated suspensions, further dilutions are made, and the various organisms are now mixed

7 The bottles are sealed and heated at 56 C for one hour

8 Sterility tests are made by adding suspension to dextrose infusion broth and incubating for forty-eight hours at 37 C

9 Finally, phenol is added to make a 0 5 per cent solution

Bacterial Filtrate—1 The supernatant fluids of all cultures are mixed and are sterilized by passing through a Seitz bacterial filter

2 Sterility tests are made by incubating the filtered broths for seventy-two hours

3 If sterile, phenol is added to make a 0 5 per cent solution as a preservative

Demonstration of Sensitiveness—To determine whether the patient is sensitive to the vaccines and bacterial filtrate solutions thus prepared, 0 05 cc of vaccine dilution containing 200 million organisms, and 0 05 cc of bacterial filtrate solution are injected intracutaneously into the forearms—vaccine into the right arm, and bacterial filtrate solution into the left arm, and the results observed and recorded in five, ten, and fifteen minutes, and again at the end of twenty-four hours Two reactions may occur an immediate reaction in the first fifteen minutes, characterized by a wheal, often 10 mm in diameter, surrounded by an area of erythema, often 30 to 40 mm or more This reaction is similar to that obtained by horse serum or white of egg in a sensitive patient Measurements of the wheal and of the erythema are recorded These reactions may fade within a few hours and may or may not be followed by a secondary reaction, which resembles a tuberculin reaction, with a swollen red area from 4 to 5 cm in diameter Sometimes one reaction occurs without the other, but either seems to indicate general sensitiveness If there is no wheal or erythema at any time following the test, the patient is probably not sensitive to this particular vaccine or bacterial filtrate solution, and the vaccine and this bacterial filtrate solution will probably be of no value in treatment

Administration—It is advisable to avoid general reactions in the administration of the vaccines and bacterial filtrates Therefore, we give them intracutaneously into the forearms—vaccine into one arm, and bacterial filtrate into the other—and with each successive dose alternate from one to the other arm Fever reactions are thus rare Marked and extensive hyperemia usually follows the injections, especially with the bacterial filtrate solutions The injections should begin with small doses, 0 05 cc of each (both bacterial filtrate and vaccine), and each week the doses can be increased by 0 05 cc until 1 cc of each preparation be reached As mentioned above, the first dose of 0 05 cc vaccine should contain 200 million organisms, or approximately this number One should continue with the bottle of solution containing this dilution until 1 cc. be reached Then a stronger dilution can be used We suggest the use of a tuberculin syringe, Betz Number 226, for giving the injections If a very extensive hyperemia results, the dose may be repeated or reduced If fever results, the dose should be reduced to the amount that failed to produce fever

The injections should be given once a week, and treatment usually continues from four to six months If favorable results occur, they are apparent within six months, and often the improvement may be more or less permanent If the patient should complain of headache, pain in the back, or indefinite pains and aches following a dose, even though there is no fever, the dose should either be repeated or reduced When 0 5 cc of vaccine and bacterial filtrate solution are reached, the following injections should be divided into two amounts, since the skin may not tolerate doses higher than this amount We believe that a better vaccination occurs with the intracutaneous than with the subcutaneous method

In order to determine the effect of the vaccine and bacterial filtrate on the amount of sputum, a careful sputum record should be kept This can be recorded each day on the chart A convenient time to measure the sputum is just before retiring An average of the amounts of twenty-one days can be made and recorded at the end of each chart sheet The sputum can be collected in a glass receptacle through the twenty four hours, and measured in a small 2- or 3-ounce medicine glass The medicine glass should be so graduated that small amounts of sputum, 1/4 or 1/2 dram, can be accurately measured

A complete physical examination should always be made, both on the nasal and lung patients X-ray examinations should also be made on both groups

Part I—Results of Treatment of Chronic Sinus Diseases and Chronic Nasal Catarrh

Preparation of Cultures—Cultures by means of swabs are taken from both posterior nares or from the sinuses and are grown as described in the preparation of cultures from sputum

Method of Treatment—These patients are given their autogenous polyvalent bacterial filtrates and vaccines intradermically The bacterial filtrate solutions are also put directly into the sinuses when necessary and are always applied directly on swabs into the middle nares in the following manner

The bacterial filtrate solution is applied to both nostrils by fully saturated cotton packs to the middle meatus in the region of the hiatus semilunaris, where one finds the openings of the antrum, the anterior ethmoid cells, and the frontal sinus Small packs are also applied to the inferior and middle meatus When we wish to put the bacterial filtrate solution into the antrum, we go either through the natural opening of the antrum in the middle meatus or puncture under the inferior turbinate into the antrum Selection of method depends upon the nature of the case In some persons it is very difficult to enter the antrum by the natural route In either method, however, we anesthetize the region (under the anterior end of the middle turbinate or under the inferior turbinate) with 10 per cent cocaine solution About 2 cc of the bacterial filtrate solution is put into each antrum The treatments are given weekly Each treatment is followed by the usual nasal oil sprays

The types of cases treated with the vaccines and bacterial filtrate solutions were divided into two groups, one the true sinus cases and the other called chronic nasal catarrh A staphylococcus was found in all these nasal patients and might indicate a causal relationship to the offending infection

The chronic sinusitis cases had definite evidence by x-ray examination of sinus disease The chronic cases of nasal catarrh had no positive evidence by x-ray of sinus disease, but we believe that a number of them had chronic sinusitis but were draining well Our classification was based upon the presence or absence of evidence of disease by x-ray

Results—There were 24 nasal cases, 16 with sinus disease and eight with chronic nasal catarrh (Table 1) Of this total number, 21, or 87 5 per cent, were either cured or improved Three patients (12 5 per cent) showed no improvement

Of 16 sinus cases, 13 (81 25 per cent) were either cured or improved, 6 patients, or 37 5 per cent, were cured, and three patients (18 75 per cent) were not improved

Of eight patients with chronic nasal catarrh, all eight (100 per cent) were either improved or cured while three, or 37 5 per cent, were cured

One sinus patient with a Staphylococcus albus became cured Twelve sinus patients with S aureus were either cured or improved, and of these five were cured

All of the patients with chronic nasal catarrh had S aureus

TABLE 1—SUMMARY OF TREATMENT IN SINUS DISEASE AND CHRONIC NASAL CATARRH

Nature of Disease	Number of Cases	Cured and Improved	Cured	Not Improved
Sinus	16	13 (81.25%)	6 (37 5%)	3 (18 75%)
Chronic nasal catarrh	8	8 (100%)	3 (37 5%)	
Total	24	21 (87 5%)	9 (37 5%)	3 (12 5%)

Part II—Results of Treatment of Tuberculous Patients

It has long been known that secondary organisms (mixed infection) are often present in the sputum of patients with pulmonary tuberculosis, especially in the advanced cases with cavity formation It has been thought, however, that this secondary or mixed infection plays a very minor role, and that it is of little or no importance Dr F M Huntoon was one of the first to attempt to determine the significance of this mixed infection from the standpoint of allergy [1] The experience which he gained over a period of two years showed (1) pulmonary tuberculosis patients are often allergic (skin sensitive) to such secondary organisms (2) Such allergy is sometimes accompanied by cough and expectoration not referable to the tuberculous condition (3) Desensitization of such patients is often followed by improvement in sedimentation rate, blood count, and clinical condition (4) A group of organisms often implicated in this connection is the Neisseria gram-negative cocci, previously overlooked or ignored in this connection

Of other workers in this line of research we mention F Maurice McPhedran, E L Lane, and J W Crossen [2] These physicians gave their experiences covering a period of six years Out of the 280 tuberculous patients observed, not less than 30 per cent, including those in all stages of the disease, showed at some time during their course an ability to react to the killed staphylococcus suspensions with unmistakable benefit, both in their symptoms and in their lesions In many of their cases the use of the killed staphylococcus vaccine appeared to be the deciding factor in preventing death or prolonged stalemate Of 142 cases under treatment in 1936 to 1938, staphylococcus vaccine had a striking effect in 20, and in 34 others the ad-

separate test tubes containing glass beads The tubes are sealed and shaken by a machine until an even suspension is obtained

5 The shaken suspension is filtered through a cotton filter to remove any clumps

6 The number of organisms in each separate shaken suspension are counted in the hemocytometer (a Hauser-Petroff counting chamber) and usually diluted so that each cubic milliliter contains 40 billion organisms From these concentrated suspensions, further dilutions are made, and the various organisms are now mixed

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field intimately related to his own His long experience at Trudeau Sanitarium has allowed him to observe and to evaluate the different kinds of treatment for tuberculosis

In the treatment of chronic sinus disease of the polypoid obstructive type and the suppurative type, little progress was made until radical surgery was employed This was accomplished by the pioneers in sinus surgery Dr John E Mackenty advocated and taught these principles, and his students have followed them It was in the follow-up treatment of the suppurative operated cases that the autogenous vaccine found its practical application, and good results were obtained In the early cases, some men employed the autogenous vaccine, combined with daily irrigation, with great benefit to the patient Dr Mackenty was outstanding because he did radical surgery He favored the use of autogenous vaccines in the aftercare, but his thorough surgery was foundational It is doubtful that he had opportunity to apply bacteriophage

As already explained, the preparation of bacteriophage is most meticulous and time-consuming It has been used in the liquid and dry form, the latter was first prepared by Professor Sergienko, but since 1937 little use has been made of the dry type owing to the difficulties of preparation The literature shows that the application in the liquid form has been largely directed against cholera, typhoid, paratyphoid, dysentery, tetanus, and staphylococcic infections In the treatment of wounds it has been shown to have great value applied locally in wet dressings

Dr Truman B Rice of Indiana University states "Striking results are reported in the treatment of dysentery, typhoid fever, and colon bacillus infection Whatever may be finally decided concerning the above diseases, it is generally conceded that the treatment of staphylococcus lesions, by local application of antistaphylococcus bacteriophage filtrates is well established" Professor Rice reported a highly successful series of 300 such cases He believes the bacteriophage filtrates are best applied locally in the form of a wet dressing or injected near the lesion

There has been considerable argument as to the manner in which bacteriophage is effective against disease D'Herelle, a pioneer worker, holds to the original view, that the bacteriophage parasitizes the infecting organisms and in this way brings the infection to an end by destroying the aggravating agent

Much has been written on the different theories as to the nature of bacteriophage, but the literature is limited on the therapeutic application of bacteriophage This is understandable owing to the long, technical processes in its preparation and is doubtless the explanation why so few laboratory workers have employed it

Dr Kinghorn and his coworkers have reported some brilliant results covering five topics, my remarks are confined to topic one, namely, chronic sinus disease and chronic nasal catarrh They have taken advantage of a technic not formerly employed to my knowledge, namely, combining autogenous vaccine and bacteriophage A staphylococcus was found in all their nasal cases which they mention as a possible causal factor in the offending infection

In their series of 22 nasal cases (14 chronic sinus and eight chronic nasal catarrh), very impressive results are tabulated A recent survey of the literature shows nothing comparable to this research

This report is positive evidence of the role played by staphylococcus in chronic sinus and chronic nasal disease and of the destructive action of bacteriophage upon staphylococcus infections

Again quoting Rice, "He believes that bacteriophage filtrates are a valuable addition to the armamentarium of the physician in the treatment of certain suppurative lesions, provided they are properly made and used"

In summarizing, special mention should be made of certain outstanding cases in Dr Kinghorn's series which establish the merit of this technic

There is no doubt about these results, they are convincing, and they offer another valuable method of treatment which is a challenge to workers in sinus disease and nasal catarrh It must be accepted that only the best laboratory facilities and the most patient investigators can duplicate these results

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ADDRESSES STATE EXECUTIVES OF WOMAN'S AUXILIARY

In an address before state executives of the Woman's Auxiliary of the American Medical Association in Chicago recently, William F Doscher, assistant director of A.M.A public relations outlined three important PR objectives which face the Woman's Auxiliary in every state They are

"1 Know and define the public relations issues confronting your state medical society, and relate these issues to your Auxiliary program activity

"2 After consultation and agreement with your state medical society's advisory council, your auxiliary should choose its targets for the year and follow through in developing sound public relations activities

"3 Woman's auxiliary public relations is YOU, the public relations program of your state auxiliary is yourself in the final analysis."—*Secretary's Letter, 1 M A , November 8, 1948*

vantage gained was unmistakable but could not be maintained long enough to control the entire course of the disease Thus, in 38 per cent of the 142 cases there was unmistakable improvement and in 14 per cent a striking improvement

Organisms Present in the Sputum —All of the lung cases that were studied showed a mixed infection and had one or several types of streptococci, except for one patient who had a pneumococcus and a gram-negative bacillus

We are unable to say that any particular organism or combination of organisms produced the immense improvement which occurred in some of these persons All of the patients with pulmonary tuberculosis had far advanced disease, and were not suitable for any other form of treatment Some of them were seemingly hopeless, and these are included in our results Our cases were, therefore, not chosen ones They were given vaccine and bacterial filtrate treatment because nothing else could be done for them

Eight of the 20 patients suffering from far-advanced pulmonary tuberculosis had no tubercle bacilli in the sputum when the vaccines were made In all of them, however, tubercle bacilli had been present previously In some of the patients the cavities had cleaned out, and were not shedding tubercle bacilli, and the other patients had lost the tubercle bacilli due to a partially successful pneumothorax treatment or thoracoplastic operation

Follow-up, One to Thirteen Years (Table 2) — Of five patients with far-advanced pulmonary tuberculosis who improved immensely with autogenous polyvalent vaccines and bacterial filtrates, four are living and well (80 per cent) One other patient is dead (20 per cent) One other patient has improved immensely but is still under treatment

TABLE 2 —SUMMARY OF TREATMENT IN PULMONARY DISEASES

Nature of Disease	Number of Cases	Improved	Unimproved	Per Cent Improved
Bronchiectasis	1	0	1	
Allergic bronchitis	2	2	0	100
Far-advanced pulmonary tuberculosis	20	6	14	30

This summary shows that there was no improvement in the patient with bronchiectasis that the two patients with allergic bronchitis improved that 6 of 20 (30 per cent) patients with far advanced pulmonary tuberculosis improved and that these tuberculosis patients improved immensely

Of 14 patients who did not improve with this treatment, six are living (42 85 per cent), and eight are dead (57 1 per cent)

Summary

Autogenous bacterial filtrates and vaccines were given to 47 patients suffering from various chronic respiratory conditions Twenty-three of these patients had lung diseases, and 24 had chronic nasal and accessory sinus troubles Of the 23 lung diseases, one was bronchiectasis, two were chronic allergic bronchitis, and 20 were far-advanced pulmonary tuberculosis The patient with bronchiectasis did not improve, the two patients with chronic allergic bronchitis improved immensely, and six, or 30 per cent, of the 20 patients with far-advanced pulmonary tuberculosis improved immensely

Of the 16 sinus cases, six, 37 5 per cent, were cured, 13 (81 25 per cent) were improved or cured, and three were unimproved (18 75 per cent)

Of the eight patients with chronic nasal catarrh, eight, or 100 per cent, were improved, or cured and three were cured, 37 5 per cent

Of the 24 sinus and nasal cases, Staphylococcus aureus was present in all of the patients

Discussion

F Howard Westcott, M D , *New York City*— I am in no position to confirm or refute the findings of Doctor Kinghorn's report In my opinion, the work was carried out in a truly scientific way, and I am glad to accept his results until the cases I am studying, following his technic, indicate otherwise I would, therefore, like to confine my remarks to the rationale of vaccine-phage-filtrate therapy in these upper respiratory diseases

A bacteriophage is a filtrate containing a specific lytic substance and also distinct endo- and exotoxic antigenic properties This it has in common with other simple filtrates of exotoxic bacteria The phage itself is filterable through bacteria retaining filters, and is considered by many as a virus and by others as an inanimate We know it can only be grown in living bacterial cultures

A vaccine contains bacterial proteins and tissues with its endotoxic antigenic property It may also retain some small amount of exotoxic substance

A toxoid is a modified form of exotoxic filtrate and, therefore, more like a phage than like a vaccine

Skin tests with vaccines are very disappointing, and most allergy clinics have discontinued their routine use Skin tests with phages have not been extensively reported and in my experience in the past ten years have not been indicative of the value of phages' clinical use I found many negatives in autogenous preparations

I would conclude by suggesting that

1 This technic be tried by others for treatment of chronic recurring upper respiratory diseases

2 Skin tests not be used as a criterion of the value of any given vaccine or filtrate therapy, and

3 End results be the guide as to their form of therapy usefulness

Edmonde D Neer, M D , *New York City*—Dr Kinghorn now has made a definite contribution to a

by the ordeal of undergoing an eye operation under local anesthesia * In anticipating how his patient will react, the operator must be guided by his intuition and appraisal of the psychosomatic makeup of the individual as a whole [5] If a dangerous rise in blood pressure is apprehended, the surgeon may institute more energetic measures to anticipate it These will include larger doses of sedatives over a longer preoperative period, the use of vasodilators and other drugs directed toward an immediate and transient lowering of the blood pressure, and possibly phlebotomy

In the series of cases here reported, there was no instance of expulsive hemorrhage, and the one case showing persistent and troublesome postoperative intraocular bleeding showed no rise in systolic pressure and only a ten point rise in diastolic pressure during operation Nevertheless, the danger of expulsive hemorrhage or cerebral accident due to heightened systolic blood pressure is a risk which no surgeon contemplates with equanimity

Many studies have been reported showing that a fall in blood pressure usually accompanies deep general anesthesia [6–8] The disadvantage of general anesthesia for eye surgery is principally the liability to restlessness during the periods of induction and recovery However, not all the anesthetic agents are equally productive of restlessness For eye operations under general anesthesia, most anesthetists prefer to use either intravenous anesthesia or a combination of avertin with nitrous oxide or one of the other gases The author's own experience with intravenous anesthesia is that it is satisfactory for all eye surgery except cataract extractions, for the latter, it is unsatisfactory because relaxation is generally not sufficient (even with a retrobulbar injection) to abolish all muscular contraction, and there may be consequent loss of vitreous The most competent anesthetists feel that with this anesthetic, if sufficient is given to induce complete muscular relaxation, the margin of safety is too small.

Wilmer in 1930 reported satisfactory experience with avertin by rectum, used either alone or in combination with other anesthetics, for eye surgery [9] In the author's experience, avertin as a basal anesthetic induces unconsciousness with a minimum of restlessness, and for cataract surgery complete relaxation is achieved by the additional administration of nitrous oxide during the critical stage of making the section and delivering the lens Sutures are, of course, employed, and no complications have resulted from the occasional minimal restlessness which may be present during recovery In many patients the opium derivatives must be avoided because of their not infrequent tendency to cause excitement or nausea

Case Report

E M , seventy-six-year-old man, was admitted to Queens General Hospital on February 15, 1944, for extraction of a mature senile cataract The patient was an apparently healthy, normally vigorous, old man with blood pressure on admission of 152/78 On February 16, he received preoperatively phenobarbital, 2½ grains and sodium allurate, 1¼ grains Four per cent cocaine was used for conjunctival instillation He had a retrobulbar injection of novocain with adrenalin, the lids were blocked with novocain and adrenalin, and 4 mm of 4 per cent cocaine were injected subconjunctivally The operation was begun, but shortly after the placing of sutures and making the section, the patient ceased to respond to directions, and breathing became labored The operation was completed rapidly, the patient was found to be definitely unconscious and began to manifest slight twitchings of the extremities The blood pressure was 220/140 Sedatives were administered intravenously Twenty-four hours later the temperature was 104 6 F , blood pressure 130/70, there was definite left-sided muscular weakness Thirty-nine hours after operation, the patient died

This was apparently a cerebral accident induced by the rise in blood pressure associated with an eye operation under local anesthesia One wonders whether this man might not be alive today had his cataract extraction been performed under general rather than local anesthesia.

Discussion

George Edgar Burford, M D , *New York City* — Doctor Frey's paper brings out the following points

1 There is a moderate elevation of systolic, diastolic, and pulse pressures

2 In about 6 per cent of patients there is a sharp elevation of systolic and diastolic pressure

3 Apparently no predictable effect on the blood pressure can be correlated with such miscellaneous factors as age, race, sex, or the use of retrobulbar injections or epinephrine

Doctor Frey suggests that a larger proportion of these patients might do well and that a selected few would definitely be better off operated upon under general anesthesia

The elevation of systolic, diastolic, and pulse pressures were not so striking as might have been anticipated Physiologists say that a change of 10 per cent is necessary in order to indicate a definite trend That is what happened in this series

The most interesting point to me concerning these studies was the fact that slightly more than 6 per cent of these patients showed sharp elevations in systolic pressure These averaged more than 60

* Cold pressor tests were carried out on a series of patients in the Eye Wards at St Luke's Hospital in 1943 in an attempt to determine whether the results would afford any criterion for assessing the vasolability of the individuals tested It was hoped that the findings would give some index of the patient's blood pressure reactions on the operating table but the findings were utterly bizarre and no correlation could be established with the subsequent systolic and pulse pressure changes occurring while the patients were undergoing eye surgery under local anesthesia The tests were therefore discontinued.

BLOOD PRESSURE REACTION OF PATIENTS UNDERGOING EYE OPERATIONS UNDER LOCAL ANESTHESIA

W Guernsey Frey, M D , New York City

THE many advantages of local anesthesia in ophthalmic surgery are generally conceded Nevertheless, the fear and excitement experienced by a patient undergoing an operation on the eye while fully conscious may cause severe blood pressure changes, as well as nervous reactions [1-4]

A study was made of the blood pressure reactions of 111 unselected patients undergoing eye surgery under local anesthesia in three New York hospitals, the blood pressure of the individual at rest being compared with the reading taken while the operation was in progress In the series, four cases were from St Luke's Hospital, 18 were from Queens General Hospital, Jamaica, Long Island, and all the others were from the Manhattan Eye, Ear and Throat Hospital The patients were operated on by 18 different surgeons, including nine residents, the blood pressure readings were made by various interns, residents, and anesthetists In eight cases, there was a fall in systolic pressure, in 95 cases, a rise The average rise in systolic pressure for the entire series was 16 mm of mercury The diastolic pressures showed no such uniformity of reaction, both increases and falls being noted, with an average rise of 2 3 mm There was, therefore, an average increase of pulse pressure of 13 7 mm of mercury (The average resting systolic blood pressure was 145 5 mm , and the average pressure during operation was 161 5 mm) The average diastolic figures were 86 7 and 89, respectively The extreme rises were 90 systolic and 75 pulse pressure (in different individuals), and the greatest falls were 40 systolic and 10 pulse pressure

In the series there were 51 men and 60 women, there were representatives of the many races and nationalities seen in New York clinics, including Negroes, Jews, Italians, Russians, Irish, Latin Americans, Scandinavians, and native-born whites It may be said that neither sex nor race was a factor in the blood pressure reactions

All cases received preliminary sedative medication for the intraocular operations—phenobarbital, sodium pentobarbital, or codeine (or combinations) by mouth, for the extraocular operations—pontopan or morphine by hypodermic Codeine, 1 grain, and phenobarbital, 3 grains, were given to more than half of the series, including those subsequently showing the greatest and the least changes in blood pressure In this statistical study it appeared that the preoperative medication played no predictable part in influencing the blood pressure reactions

For the patients with the highest blood pressure preoperatively, either the retrobulbar injection was omitted, or it was given without adrenalin The seven patients showing the highest rise in systolic pressure during operation (averaging 63 4 points) averaged sixty and seven-tenths years of age, of these seven, four had retrobulbar injections with adrenalin, one had a retrobulbar injection without adrenalin, and two had no retrobulbar injection The eight patients showing a fall in systolic pressure during operation (averaging 13 25 points) averaged sixty-two years of age, of these, three had retrobulbar injections with adrenalin Here again it was impossible to feel that the presence or absence of adrenalin or the action of the retrobulbar injection played any part in increasing the blood pressure during operation

The above findings would also suggest that the age of the patient was not a factor, but analysis of the statistics shows that the 31 patients over seventy years of age (averaging seventy-five) did show average systolic rises during operation of 21 points, this being five points above the average for the entire series The average age for the series was sixty years

Studying the figures further, we find that for the cataract cases, constituting somewhat more than half the series, there was an average increase of systolic pressure of 19 9 mm and of pulse pressure of 16 mm For the other long intraocular operations the averages were 18 5 and 15 4 For the short intraocular and the extraocular operations, the average figures for systolic rise and pulse pressure rise were 10 3 mm and 6 4 mm, respectively

We find, then, that patients undergoing eye operations under local anesthesia have an average rise in systolic blood pressure during operation of 16 mm of mercury, that the operations accompanied by the least average rise in systolic blood pressure are the extraocular operations and the short intraocular operations, such as iridectomies, and that in older patients, as might be expected, blood pressure rises are greater Beyond that, sex, nationality, and resting blood pressure are in themselves no indication as to how the blood pressure of a given individual will be affected

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RECONSTRUCTION OF THE THUMB

WALTER C GRAHAM, M D , Santa Barbara, California, and DANIEL RIORDAN, M D , Nashville, Tennessee

IT IS interesting to note that of all mammals, only the primates have opposable thumbs In all other groups, the thumb is either absent or rudimentary in character Fingers may be very nimble, but grasp is accomplished by opposing against a pad in the palm of the hand A very definite advantage of a primate thumb, particularly in man, is the ability to grasp between the the thumb and fingers in a position well away from the palm of the hand This single ability tremendously increases the possibility of detailed and refined activities In removing detailed activities from the palm, the thumb is as important to the hand as the arm is in removing the hand from the body

In a recent contribution, Slocum and Pratt attempted to estimate the various functions of parts of the hand [1] They feel that the thumb is 40 per cent of the entire hand They arrived at this figure by considering it as 50 per cent of the ability to grasp and pinch The value of sensation to the usefulness of a hand is also estimated at a total of 50 per cent It is very evident that a thumb without sensation is of extremely limited value In view of the above values, when one considers the possibilities of the various methods of reconstructing a thumb, it is obvious that a surgeon must always have in mind the sensory capacity of the part

Ideally, the new thumb should have sensation comparable to the other fingers of the hand, naturally this includes the stereognosis and proprioception One must also be able to maintain the constructed thumb in a position of function This includes two very essential details—the ability to oppose and adequate muscle control to maintain the opposed position against stress

There are four methods of reconstructing a thumb, which depend upon conditions present in the remaining portion of the hand The first and simplest is that of deepening the web between the thumb and the palm of the hand This is particularly useful in mangled hands where there is loss of the fingers and the thumb, or a tremendous shortening of the digits A progression of the above cleft ing is carried out in phalangization of the metacarpals As a rule, only two metacarpals are phalangized, and to many hand surgeons this seems adequate There are cases reported in which all five metacarpals have been phalangized, but this seemingly inhibits rather than promotes function

The second, and probably most frequent method of restoring a lost thumb, is that of constructing a tube pedicle on the abdomen and transplanting it to the site of the proposed thumb Of course the extensiveness of this procedure is dependent upon the site of amputation

The third, and rather popular but more difficult method, is pollicization of the index finger to replace the missing thumb

The fourth method is that of replacing the thumb with a digit from the opposite hand or with a toe The above methods and their indications will be considered individually

The most frequent total loss of the thumb and fingers occurs in severe frostbites It is less commonly found in congenital deformities, severe burns, and in severe crushing wounds A hand of this type has no more function than that of a forefoot of a dog or bear These animals are limited in picking up and rolling objects between the paws In this type of hand there are excellent possibilities for producing a grasping and pinching member

A cleft ing operation between the first and third metacarpals with removal of the second can be performed and a skin flap with sensation turned over the raw areas where contact will be made The advantage of this procedure compared to split skin grafts in the contact areas is readily realized, as sensation is maintained and the skin is much more resistant to trauma A few surgeons advocate removing the second and third metacarpals to give a wider base to the cleft As the first metacarpal is considerably shorter than the others, lengthening it is definitely advantageous

We have found that a very convenient method of lengthening the first metacarpal is to transplant the distal half of the second metacarpal onto the stump of the first This bone is allowed to unite in moderate valgus, thus placing the tip of the thumb in better position for closer proximity to the remainder of the hand When the hand is clefted, the intrinsic muscles are kept with the first metacarpal so that the power of grasp will be increased The long flexor tendon of the thumb is also attached to the first metacarpal to increase the abduction power We have found this pro-

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mm of mercury Such a reaction on the part of the patient must necessarily enter into the surgeon's calculations about the success of his operation and even the safety of his patient

It is, of course, difficult to predetermine which one is going to show this substantial elevation A method of selecting these people would be most desirable Doctor Frey has brought out the difficulty of making this selection I might suggest that the individual who is sure that he cannot stand an operation under local anesthesia and tells you so should be listened to carefully and frequently heeded

Another type is the one who already shows a high, resting blood pressure Doctor Frey has brought out that these individuals do not necessarily show greater elevations of pressure during operation than other members of his series However, an average elevation of pressure starting from a high base may have more serious consequences

It is well to observe most critically the patients being operated upon for cataract These are usually the most serious situations The patient is likely to be older, to have more at stake, and, therefore, to be apprehensive and under tension Many of these people could be better handled under basal followed by general anesthesia

It seems worthy of comment that Doctor Frey found that neither age nor the retrobulbar injection of adrenalin produced any greater elevation in blood pressure than was average for the series It must be remembered, however, in dealing with the more elderly person, that the resting levels are higher and that the vascular system itself is less able to respond satisfactorily to elevations in pressure Therefore, an average rise of pressure in these patients might produce a more unsatisfactory result than one occurring in younger individuals

It was remarkable to me that the use of adrenalin in a retrobulbar injection on the average patient caused no sharp rise in pressure I would urge considerable caution in using this drug We in anesthesia have come to think of adrenalin as a potent and at times dangerous drug When combined with cocaine, even in small amounts, it is capable of producing alarming cardiovascular effects It must be remembered that what we are dealing with is not a group of average patients A sharp elevation in just one patient can produce a serious result It may be significant that the one patient in this series who had serious trouble did receive an injection of epinephrine

When general anesthesia is to be used, some form of basal anesthesia should be first administered. As blood pressure changes are one of the paramount considerations, it is best that the basal anesthesia be given in the patient's room Undoubtedly, the point at which fear and excitement are at the peak is during the approach to the operating room This trial is eliminated by the rapid induction of sleep in the patient's room

For this purpose small doses of avertin are probably best suited In our experience avertin practically always lowers blood pressure *during* the preliminary period before operation and during the first part of the operation This effect with other anesthetics is not as well established It is debatable whether this lowering of blood pressure is a good thing under ordinary circumstances However, in this instance it appears to be a specific beneficial effect

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LIFE INSURANCE MEDICAL RESEARCH FUND

The Life Insurance Medical Research Fund organized in 1945 by a group of United States and Canadian life insurance companies, with Dr Francis R Dieuaide as scientific director, has recently issued its third annual report At the beginning of 1947 the Fund was contributing to the support of 51 research programs and 19 research fellows During the year this number was materially increased

Present studies in which the Fund is interested are directed mainly toward the problems of heart disease, so important from the actuarial point of view

Contributions by the life insurance companies to research into the causes of premature death, represent a sound investment on their part. Their profits are increased by human longevity, and, conversely, favorable results in the attainment of longevity should have their favorable effect on insurance premiums It must still be borne in mind, however, lest universal longevity be achieved too rapidly, that the breadth of life may be more important than its length —*New England Journal of Medicine, October 7 1948*

Summary

Various methods and problems in reconstruction of a thumb are considered. The three important factors are maintaining sensation, maintaining the ability to oppose the thumb against the fingers, and having the position of opposition away from the palm when possible.

A satisfactory substitute for a missing thumb can usually be produced by one of the above mentioned procedures.

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THE PHYSICIAN AND THE DETECTION OF PRESYMPTOMATIC CANCER

Siegfried W. Wiesno, M.D., Brooklyn, New York

(From the Brooklyn Cancer Institute and the Kings County Hospital)

THANKS to the educational activities of the American Cancer Society the public is gradually becoming aware of the fact that cancer has a much better prognosis if discovered before subjective symptoms appear. Consequently, with increasing frequency persons who consider themselves healthy apply to the physician for cancer detection. Compelled to take a stand in this matter the physician finds himself confronted with a number of questions. Which persons and which organs should be examined? How should the examination be conducted? Which laboratory tests and which specialized studies are essential? At what intervals should the examination be repeated? Who is qualified to perform the examination? If, in search for answers to these questions, the physician consults the current medical literature, he will discover that many of the details of the problems are still in a controversial state. For instance, whereas the editors of the *Journal of the Medical Society of New Jersey* feel that cancer detection examination of apparently healthy people belongs to the general practitioner, a writer from New York maintains that cancer detection in symptom-free persons is no longer a one man job.[1,2] Time will ultimately produce a definite solution of the problems. Meanwhile, the author submits his answers to the profession for consideration.

Persons of any age may harbor malignancy. Science does not possess a generally accepted, simple test to indicate whether malignancy exists in an individual. These two facts would seem to render it imperative to examine periodically every organ of every person from birth on for signs of beginning malignancy. While such a program would represent the ideal, it cannot be carried out with the physicians' time available. Even if the search is confined to the less deep-seated organs, to examine the entire population of the United States once a year would add to every physician's daily activities an average of five hours of strenuous work. Examinations which include every organ or nearly every organ are applicable to a selected few but are out of the question as a large-scale program. For any project that intends to be or, at least, to approach a mass survey, it becomes necessary to limit the search to the age groups with a comparatively high incidence of malignancy and to those organs where malignancy is frequent, easily discoverable, and comparatively easily cured.

Cancer as the cause of death plays an important role in persons over forty years only. The initial stages of these cancers must be detectable at some time prior to death. Therefore, it seems warranted to stipulate that candidates for the cancer detection examinations be thirty-five years and over. While persons under thirty-five years will not be refused (at one of the detection clinics children from one year on are accepted), large-scale surveys of persons younger than this must be dispensed with as long as physicians' time is a factor.

cedure to be extremely gratifying, and the patients are very pleased with the result

In less severe cases where a portion of the fingers remains, a simpler procedure will suffice to give a useful hand If there is total loss of the thumb and loss of all fingers with the exception of the fifth, a simple procedure such as osteotomy of the fifth metacarpal and rotation of the finger into a position for opposition against the stump of the thumb will be extremely useful This gives an excellent position for grasping, and contact is against tissue which still maintains sensation In less severe cases where the ring and middle fingers also remain, an osteotomy of the first metacarpal, bringing the stump of the thumb well over into the center of the hand, will give excellent contact for function

There are many interesting and well-illustrated articles recommending the replacement of a missing thumb with a tube pedicle graft into which a bone graft is inserted for stability The abdomen is usually the source of the pedicle Occasionally, a case is reported in which a compound flap is utilized Generally a portion of the clavicle is incorporated in such a skin flap One of the lower ribs has also been used in this manner The most common sources of bone grafts are the ilium, a portion of the rib, and tibia The revascularization of tibial bone is extremely slow, and there is a tendency for the bone to cause necrosis of the flap We feel that the rib or ilium grafts are more desirable, as they are more easily molded to the desired shape and position The appearance of a reconstructed thumb of this type is usually satisfactory The disadvantage of this procedure is the lack of motion of the distal two joints and inadequate muscular control to place the thumb in proper position for useful function

There are frequent complications encountered which include necrosis of the bone graft, sloughing of the tip of the pedicle, and failure of sensation to extend to the tip of the thumb Of course no stereognosis ever develops, as the special sense organs are not present in abdominal skin

The transplantation of digits from the opposite hand has been reported frequently in the European literature Nicoladoni reported the replacement of a portion of a defective thumb by transplanting the second toe [2] Parin made an extensive study of digital transplantation and reported many cases of his own

As a rule, the ring finger is the one selected for transplant to the opposite hand We have had no experience with the above procedure, but reports available at present would indicate that it is not too desirable The cases reported indicate a general atrophy of the transplanted digit, as well as lack of sensation and function in the joints Better function is reported in toe transplants than in those of the finger

Probably the most desirable reconstructed thumb is that of a pollicization of the index finger I doubt very much the advisability of sacrificing a normal index finger to reconstruct a thumb, but in most cases where the thumb is lost as a result of injury, there will be some damage to the index finger as well As a rule, it is non functioning as to position, and transplanting it to the thumb also relieves the limitation of the remaining finger The advantage of pollicization of the index finger is that the normal sensation, blood supply, and tendon and muscle function can be carried with the bone and skin to the new position A portion of the second metacarpal or the stump of the proximal phalanx is transplanted to the stump of the first metacarpal

It is necessary that the finger be rotated almost 90 degrees so that it will be in the proper position for opposition against the fingers The nerves of the index finger are well divided into the base of the hand and allowed to assume a new position in the hypothenar eminence It is more desirable to maintain the flexor tendon of the index finger than to attach the flexors of the thumb to the transplanted finger The long extensors of the index finger are also transplanted, well to the radial side of the wrist, so that the pull will be in the desired direction to allow abduction and opposition In many cases there will be a loss of the opponens muscles of the hypothenar eminence, and an opponens operation will be necessary to restore this function

An essential problem that is very often overlooked or inadequately appreciated is the relative length of the index finger as compared with a normal thumb Also ignored is the fact that a thumb is a two-joint digit and that three joints in the transplant are not only unnecessary but are not desirable As a rule, the distal phalanx may be sacrificed so that the finger can be shortened to the more nearly normal length of the thumb Another definite advantage in sacrificing the distal phalanx is that there is a change in the direction and an increase in the width of the distal sensory pulp so that it more nearly compares with the distal phalanx of the thumb which normally goes into hyperextension and thus increases the surface which contacts the other fingers An index finger cannot adequately be freed without the use of a flap, usually abdominal, to form a web between the new-formed thumb and the fingers

The execution of rough and gross procedures is the first step in rehabilitation Later the gradual transition to the finer and more meticulous types of occupational therapy should be accomplished

Summary

Various methods and problems in reconstruction of a thumb are considered The three important factors are maintaining sensation, maintaining the ability to oppose the thumb against the fingers, and having the position of opposition away from the palm when possible

A satisfactory substitute for a missing thumb can usually be produced by one of the above-mentioned procedures

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THE PHYSICIAN AND THE DETECTION OF PRESYMPTOMATIC CANCER

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THANKS to the educational activities of the American Cancer Society the public is gradually becoming aware of the fact that cancer has a much better prognosis if discovered before subjective symptoms appear Consequently, with increasing frequency persons who consider themselves healthy apply to the physician for cancer detection. Compelled to take a stand in this matter the physician finds himself confronted with a number of questions Which persons and which organs should be examined? How should the examination be conducted? Which laboratory tests and which specialized studies are essential? At what intervals should the examination be repeated? Who is qualified to perform the examination? If, in search for answers to these questions, the physician consults the current medical literature, he will discover that many of the details of the problems are still in a controversial state For instance, whereas the editors of the *Journal of the Medical Society of New Jersey* feel that cancer detection examination of apparently healthy people belongs to the general practitioner, a writer from New York maintains that cancer detection in symptom-free persons is no longer a one man job [1 2] Time will ultimately produce a definite solution of the problems Meanwhile, the author submits his answers to the profession for consideration

Persons of any age may harbor malignancy Science does not possess a generally accepted, single test to indicate whether malignancy exists in an individual These two facts would seem to render it imperative to examine periodically every organ of every person from birth on for signs of beginning malignancy While such a program would represent the ideal, it cannot be carried out with the physicians' time available Even if the search is confined to the less deep-seated organs, to examine the entire population of the United States once a year would add to every physician's daily activities an average of five hours of strenuous work Examinations which include every organ or nearly every organ are applicable to a selected few but are out of the question as a large-scale program For any project that intends to be or, at least, to approach a mass survey, it becomes necessary to limit the search to the age groups with a comparatively high incidence of malignancy and to those organs where malignancy is frequent, easily discoverable, and comparatively easily cured

Cancer as the cause of death plays an important role in persons over forty years only The initial stages of these cancers must be detectable at some time prior to death Therefore, it seems warranted to stipulate that candidates for the cancer detection examinations be thirty-five years and over While persons under thirty-five years will not be refused (at one of the detection clinics children from one year on are accepted), large-scale surveys of persons younger than this must be dispensed with as long as physicians' time is a factor

Those of us who have been engaged in cancer detection work find it expedient to combine the search for cancer with a general health check-up, taking into consideration chiefly such important noncancerous conditions as tuberculosis, syphilis, renal-cardiovascular disease, and diabetes The cancer-detection examination thus becomes a periodic health examination characterized by the emphasis placed on the search for those malignancies which are frequent, easily detectable, and comparatively easily cured

The examination begins with the taking of the past and family history Although the examinee considers himself symptom-free, thorough questioning may elicit relevant facts such as change in bowel movements, loss of weight, or loss of appetite The person's habits (eating, sleeping, intake of stimulants and poisons, including occupational poisons) are discussed The weight of the examinee is recorded, so that a change can be discovered during subsequent examinations Inspection and palpation of skin, lips, mouth, tongue, pharynx, axillae, supraclavicular regions, neck (thyroid), and inguinal regions is done Blood pressure is measured, reflexes are tested, and percussion and auscultation of the chest are performed The rectum is examined digitally, while the patient is standing or squatting, as a much longer stretch of bowel can be investigated in upright position During this examination in a man, attention is paid to the condition of the prostate The examinee is then placed on the examining table for the inspection and palpation of the breasts and the abdomen (liver, spleen, kidneys) Finally, in women, the pelvic organs are examined in the customary position

A vaginal smear may be obtained and processed according to Papanicolaou [3] One will keep in mind that a negative Papanicolaou smear does not rule out genital cancer and that about 20 per cent of the positives are false positives [4] These false positives may create distress for the examinee and embarrassment for the physician In spite of these shortcomings the test promises to be accepted as a useful screening method Other essential laboratory tests are urinalysis, differential blood count, hemoglobin determination, and a serum reaction for syphilis Examination of the feces for occult blood may yield valuable information It has been pointed out, and my experience confirms it, that the preparatory abstention from meat can often be dispensed with since most people have a negative benzidine test even when they are unprepared [5] A positive result obtained under these circumstances will, of course, have to be verified by repetition after the conventional preparation

Up to this point the examination can be performed readily by any well-trained physician. The question arises as to which specialized studies are indicated The organs covered thus far furnish approximately 40 per cent of all the fatal cancers. The application of the laryngoscope raises this percentage to 42 Fluoroscopic or roentgenographic chest study takes care of organs which are the site of 10 per cent of the fatal cancers, quite an impressive figure However, in view of the fact that with today's therapeutic armamentarium the cure rate of pulmonary cancer is still low, the roentgen study of the symptomless chest cannot be expected to reduce the cancer death rate materially Yet it will be retained as a tuberculosis case-finding method Proctosigmoidoscopy is of great value in any cancer detection project One cancer detection clinic reports that five cancers and 18 polyps were found proctosigmoidoscopically among 299 cases without symptoms [4] The scope not only visualizes the lesions disclosed by the digital examination of the rectum but also extends the survey into a new area which contributes 4 per cent to the number of killing cancers If a Papanicolaou smear is taken, none but an experienced pathologist can attempt to interpret it

Malignancies of the stomach and of the colon beyond the reach of the proctosigmoidoscope are decidedly frequent, either of these two groups takes up about 14 per cent of the fatal cancers. If the recommended schedule of examination is carried out, the only hints that early malignancy may be present in these organs are the findings of occult blood in the feces, loss of weight, or anemia Some authors advocate a much more active attitude in the search for presymptomatic gastric cancer Surgeons, alarmed by the low cure rate of advanced gastric cancer—and most of the gastric cancers are advanced by the time they reach the surgeon—have advised that periodically the stomachs of symptom-free persons of cancer age undergo various examinations, chiefly roentgen studies [6 7] Others wish to see this procedure confined to men, since gastric cancer is more prevalent among men than among women While it is usually easy for an expert to recognize an advanced gastric cancer with the help of x-ray methods, the problem of discovering an early gastric malignancy roentgenologically is a decidedly difficult one An experienced roentgenologist will have to perform a thorough fluoroscopy, take spot films with and without graded compression under fluoroscopic control, and scrutinize the full series of films taken with varying amounts of opaque material, if he wishes to accomplish the task with as few false positives and false negatives as possible The files of the American Medical Association list 2,589 physi

cians as limiting their practice or giving special attention to roentgenology and radiology If one estimates that there are 5,000 physicians qualified to perform the x-ray examination of the stomach, and if every man of cancer age would undergo such an examination once a year, it would mean that 23 such examinations would have to be added daily to the ordinary duties of the roentgenologist It is obviously impossible to carry out such a project on a scale anywhere near a mass survey Another point to consider is the occupational hazard which accompanies fluoroscopic work. If the roentgenologists were exposed to such an excessive increase of irradiation, the danger to their health would be a factor not to be neglected

Under these circumstances it is understandable that shortened procedures have been looked for St John, Swenson, and Harvey have performed the experiment of fluoroscoping rapidly the stomachs of 2,432 symptom-free men and women over fifty years of age [8] They were aware that their method did not come up to the standards of a full-size roentgen survey of the stomach, and there is no way of knowing how many cancer cases may have escaped detection However, even their rapid method discovered three cases of malignancy, unsuspected before the examination, later corroborated by more extensive studies and finally proved by surgery Two of these three cases of unsuspected gastric malignancy are now without evidence of disease over five years after the resection [9] In addition to these three cases, there were five other cases where fluoroscopy aroused suspicion of malignancy More careful investigation seemed to bear out the first impression, and resection disclosed benign ulcers

Dailey and Miller examined fluoroscopically 500 men over forty-five years of age with no digestive complaints [10] They had to call back 29 of these men for more thorough study One was diagnosed as gastric ulcer, one as suspicion of antral polyp, and one as marked antral deformity Only the latter consented to further study, and, after the diagnosis had been verified by gastroscopy, received a subtotal gastrectomy Nothing worse than a gastritis was found

One cannot remain unconcerned about the fact that six persons had a partial stomach resection for a symptomless ulcer or gastritis and that one of these operations caused a fatality (One patient of the first series died on the fifth postoperative day of pulmonary embolism.) The literature reports many cases—and every experienced roentgenologist can easily increase the list—where an unnecessary operation was performed on the strength of misinterpreted x-ray findings One has to keep in mind the shortcomings of our diagnostic and surgical procedures when he attempts to decide whether rapid fluoroscopy or other short-cut x-ray examinations, or any x-ray procedures at all, are advisable as means of detecting gastric cancer in symptom-free persons Realizing that false positives are not at all rare and that the operative mortality, even in good clinics, is far from zero, I wish to side with those authors who feel that x-ray examinations of the stomach have no place in the schedule to be applied to the detection of malignancy in symptom-free persons on a mass survey scale [10–12]

Nobody, to my knowledge, has proposed routine periodic colon x-ray studies in symptom-free persons Such an undertaking would be impractical for the same reasons that were stated in regard to the stomach While the importance of digital and proctosigmoidoscope examinations was emphasized before, x-ray study of the symptom-free colon must be reserved for exceptional cases

It will be noted that the organs dealt with so far contribute 84 per cent of the fatal cancers The remaining 16 per cent originates in organs, such as the central nervous system, esophagus, small intestine, liver, pancreas, urinary tracts, adrenals, and bones, which are either rarely affected by cancer or less readily accessible to diagnostic and therapeutic procedures and, therefore, find but little space in the program of presymptomatic cancer detection

Who should perform the examination of symptom-free persons? Cancer detection clinics as they are now being organized in increasing numbers are staffed and equipped to do all that is necessary in this respect A report from one of these clinics reveals that six specialists and six nonmedical personnel are spending four hours each week to examine 16 people [2] Those persons over forty years of age are invited for a return visit in six months, a policy essential for the effectiveness of the project If they do return every half year, they will absorb all or nearly all the time of the clinic, and new applicants will have little chance to be admitted, once the service has been in operation for a half year That means the clinic will watch over the health of about 400 people This figure represents about 1/1,300 of the cancer age population of that community To provide the entire community with a similar service, 1,299 more such clinics would be required Other cancer detection clinics work with more speed, but on the whole the tendency in these clinics is to examine each person as thoroughly as possible—even ophthalmoscopy is included, as a rule, despite the known

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rarity of ocular malignancy. Therefore, the capacity of these clinics as they are operating at present is quite limited. *New York Medicine*, admitting that "almost any conceivable number of cancer detection clinics will not be able to meet the public demand for this service," raises the question "Should it not be well, therefore, for private physicians to undertake whenever possible a comparable service for their private patients?"[13] A number of physicians have undoubtedly time to spare. Some of these are qualified and equipped to perform the examinations. Others may be able to acquire the training and install the equipment needed for this activity, and still others will have to arrange a collaboration with representatives of the various specialties mentioned above in order to supplement their own examinations.

Concerning the frequency with which the examinations should be repeated, various recommendations have been made ranging from once to four times a year. A larger number of persons can probably be accustomed to submit to such an examination once a year rather than several times a year. Since the annual check-up has a better chance of appealing to the public, it is likely to be more effectual in the long run. For a few individuals (for instance cancerophobics and persons with an incriminating family history) a semiannual health check may be indicated. Should symptoms make their appearance before the year or half year is up, the return visit has to take place immediately.

Once a physician has entered this new field of activity, he cannot escape the conclusion that what is valuable for persons who request this service ought to be extended to the entire group of people who depend on him for medical care and who implicitly expect and have a right to expect that he will let them share in the benefits of the advances of medicine. A physician who serves a community of a 1,000 people will see an average of 14 succumb to cancer in the course of ten years. While many of these deaths cannot be prevented with the diagnostic and therapeutic methods at our disposal, a considerable percentage of them could either be avoided or at least postponed if a systematic effort were made. If lack of time, training, equipment on the part of the physician, and lack of cooperation by his community would keep the physician from proceeding with the full cancer detection schedule, he might consider carrying out a partial program. Such a partial program would be based chiefly on the facts that cancers of the female breast and of the uterus constitute about 25 per cent of all fatal cancers (male and female), are comparatively readily discovered and, when found while in an early stage, have a comparatively good prognosis. In this community of 1,000 there are at any time 200 women of cancer age. If these 200 could be induced to submit to a modified cancer detection examination twice or at least once a year, the physician's task would be either 400 or 200 breast plus pelvic examinations annually, a job which may prove to be within the limits of his time, capabilities, and facilities. In this way, he may expect to save two or three of the 14 doomed. If, in addition, he did oral and rectal examinations in men and women, he would be carrying out a program which, although far from covering the entire field of cancer detection, would have the advantages of being applicable to the masses, without burdening the medical profession unduly, and of promising beneficial results of sufficient magnitude.

Summary

Stimulated by the campaigns of the American Cancer Society, the demand for cancer detection examinations of symptom-free persons is steadily increasing. This movement gives rise to a number of questions. Who and what should be examined? How should the examination be carried out, and which laboratory tests and specialized studies are to be performed? How often should a person report for such an examination? Have private physicians, individually or in groups, the time, the qualifications, and the equipment necessary to perform these examinations, or does this work belong to the cancer detection clinics exclusively? Answers to these questions are submitted to the profession for consideration. The author hopes to bring this controversial matter a little nearer to a practical and generally acceptable solution and to assist the private physician in establishing his place in this field of activity so widely publicized of late.

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RELIEF OF PERIPHERAL VASCULAR PAIN AND ANGIOSPASM BY INTERLAMINAR RHIZOTOMY

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A VARIETY of neurosurgical procedures is available for the relief of the pain of peripheral vascular disease Unfortunately, most of these are either not consistently successful or are of such magnitude as to be undertaken only in cases where the pain factor is extreme In patients in whom vasospasm is an important factor in the production of pain or paresthesia, as in those suffering from Raynaud's disease or causalgia, interruption of the sympathetic pathways, chemically or surgically, is warranted However, because of the marked capacity for regeneration in sympathetic nerves, the long-term follow-up results are not uniformly good

More recently, similar treatment has been recommended for the pain of Buerger's disease in patients in whom angiospastic factors can be demonstrated by reliable vasomotor tests, such as sympathetic nerve block or spinal anesthesia While it is true that pain relief may be expected to some degree in such instances, there are occasional patients who, although free of the generalized, radiating ischemic pain, still continue to suffer severe local pain at the site of a gangrenous process Furthermore, since such interruption of the sympathetic pathway does not cure or prevent the further ravages of this recurrent disease, and since regeneration of sympathetic nerves may be expected over a period of time, the procedure cannot be said to be wholly satisfactory

It has been suggested that relief of peripheral vascular pain in the foot may be achieved by cutting the sensory fibers to that area. In our experience, despite complete interruption of all the known sensory nerves of the foot, intractable pain persisted This suggested to us that the pain of peripheral vascular disease may be carried by autonomic rather than somatic pain fibers

Complete relief of peripheral vascular pain, in the foot, at least, can be achieved by spinothalamic tractotomy, but this is a procedure to be undertaken only if the pain is severe enough to require amputation as the only other alternative procedure There appears to be some evidence that this form of cordotomy may be followed by some improvement in skin temperature, either as a result of abolishing a vasoconstrictor reflex evoked by pain or possibly by coincident interruption of descending vasoconstrictor impulses in the cord

In considering further the problem of relieving intractable peripheral vascular pain, we have been impressed with the possibility of interrupting pain impulses from the foot by the relatively simple procedure of extrathecal section of the sensory fibers of the lower lumbar and first sacral nerves through an interlaminar approach The selection of particular roots to be sectioned depends on the distribution of the patient's pain This operation as a possibility for relief of foot pain secondary to peripheral vascular disease suggested itself through experience with the surgery of ruptured low lumbar intervertebral disks, where it was found that the fourth and fifth lumbar and first sacral nerves, the essential sensory innervation of the foot, could be exposed without laminectomy, or minimal laminar edge trimming As yet, it is too early to assess the merits of this procedure, the use of which is postulated not only on the possibility of relieving pain but also on the possibility of abolishing the vasospastic reflex evoked by pain If subsequent experience with the operation confirms the favorable results obtained in the cases under review here, it may prove to have a place in our armamentarium for the relief of peripheral vascular pain

Dermatomic studies that have resulted from experience with radiculitis secondary to herniated lumbar disk permit fairly accurate determination of the roots requiring section for a given patient's pain [1] Thus, pain confined to the great toe was considered as perhaps relievable by section of the posterior roots of the fourth and fifth lumbar nerves Pain involving the more lateral toes and lateral aspect of the foot was considered as possibly requiring section of the posterior root of the first sacral nerve.

To test this hypothesis, the following two advanced cases of peripheral vascular disease were selected for this type of pain-relieving procedure The criteria underlying their selection were failure to secure relief with more conservative measures and the likely prospect of amputation as the only alternative that could be offered

Case Reports

Case 1 —J K., a sixty-year-old white man, a

known sufferer from peripheral vascular disease of the lower extremities for two years, was admitted to the hospital complaining of severe pain of three months duration in the toes of the right foot The pain was described as burning, originally precipitated by walking but subsequently present at rest and becoming more severe on activity It was at times so intense that the patient was unable to sleep

The past history disclosed that the patient had been a known diabetic for seventeen years and was controlled by diet alone during the past few years He had been attending the peripheral vascular clinic for treatment for two years prior to admission In 1931 and again in 1934, the patient had suffered episodes of coronary thrombosis and at the time of admission was the victim of anginal syndrome on exertion, relieved by nitroglycerine

Examination disclosed the following significant findings Blowing systolic murmur in the mitral area, nontender liver edge 5 cm below the costal margin, and bilateral inguinal hernia The extremities exhibited cyanotic rubor of the right foot, most marked in the toes Infection in the nerve bed of the right first toe was present The right foot was colder than the left Dorsalis pedis and posterior tibial arterial pulses were not palpable on either side Oscillometric studies and skin surface temperature determinations were markedly diminished below the normal levels in both lower extremities A spinal anesthesia vasomotor test performed on March 26, 1947, showed evidence of marked organic vascular occlusive disease involving both lower extremities, more pronounced on the right side There was no response in temperature elevation on the right side and a moderate response on the left

Fasting blood sugar studies showed a level of 116 mg per cent Urea nitrogen was 16 6 mg per cent

On April 2, 1947 a right lumbar sympathectomy with excision of the second and third lumbar ganglia was carried out This procedure relieved the radiating pain in the limb, but severe pain still persisted in the right first toe about the site of a gangrenous process in the ungual region The patient was discharged to the follow-up clinic, but because of persistence of pain in the right first toe, he was re-admitted to the hospital where a posterior rhizotomy of the right fourth and fifth lumbar roots was carried out on May 27, 1947 Following operation, the pain was of appreciably decreased severity but was present at irregular intervals throughout the day

When re-evaluated in the follow-up clinic on June 17, 1947, twenty-one days after operation, the patient was found to be free of the major portion of the pain, which prompted the operative procedure He suffered only moderate discomfort in the offending toe and, for the first time, was occasionally free of all pain On examination both feet were found to be ruborous at the distal plantar portions and toes on dependency No pallor was present on elevation of either foot The necrotic ulcer of the nail bed of the right first toe showed evidence of localization and demarcation and was dry

Skin surface temperature studies prior to operation had shown the toes of the right foot to be 1 to 1 5 degrees (F) warmer than the corresponding areas on the left toes Twenty-one days after rhizotomy similar readings showed the right toes to be 3 to 4 degrees warmer than the left The oscillometric studies were unaltered

When seen on July 18, 1947, the patient noted that improvement was continuing and that the former pain in the remaining toes and dorsum of the foot had cleared up completely He stated that he slept six hours a night instead of the former (preoperative) two Apart from a very slight weakness of dorsiflexion of the right foot, no demonstrable limitation of motor power was observed Sensory examination disclosed a hypalgesia of the first four toes of the right foot An interesting feature was the fact that, although vibratory sensibility was disturbed in these toes, muscle-joint sense appeared to be intact

On August 1, 1947, two months after operation, healing of the great toe was noted The patient stated that his pain was 75 per cent improved and expressed himself as being satisfied with the operation

Case 2—F S, a forty-six-year-old Negro man, was admitted to the hospital on March 21, 1947, complaining of pain and swelling of the toes of the right foot of four months duration This started with pain and ulceration of the fifth toe followed after about two months by similar involvement of the first toe The ulceration in the former digit healed, that in the latter persisted, presumably because of an underlying osteomyelitis, which was revealed by x-ray study For about two months prior to admission the patient had been subject to intermittent claudication in the right calf muscles on walking half a block At the time of admission he complained of extreme pain in the first and fifth toes of the right foot

Of interest was the fact that six years previously the patient first noted swelling and pain in the first toe of the left foot which subsided after several months

Examination after admission disclosed the following significant findings

Right foot—Deeply ruborous on dependency There was no pallor on elevation of the extremity The foot was slightly warm Pulsation was present in the femoral artery but not in the dorsalis pedis or posterior tibial vessels There was marked edema of the right foot, ankle, and lower leg A dry gangrenous plaque was present on the plantar surface of the distal portion of the first right toe, and an infected gangrenous fissure was present at the base of the right fifth toe

Left foot—Pulsation was present in the femoral artery but absent in the dorsalis pedis and posterior tibial vessels Slight edema was present in the left foot which was "icy" cold to touch

Oscillometry showed asymmetry between the two limbs, the left leg being affected more than the right Skin surface temperatures were slightly diminished in the toes on the right side and markedly diminished in the left toes

Paravertebral sympathetic block at the first to fourth lumbar vertebrae was carried out on three occasions with immediate temporary relief following each procedure Despite this it was felt that in view of the likely progressive nature of the disease more than sympathetic interruption would be required to effect permanent relief of the patient's pain

Accordingly, on May 1, 1947, the posterior roots of the fifth lumbar and the first sacral nerves on the right side were sectioned under spinal anesthesia This resulted in marked relief of the pain in the patient's toes, associated with hypesthesia corresponding to the dermatomes of the sectioned roots There was no evidence of foot drop or other motor weakness

When seen on May 20, 1947, it was noted that the patient could walk about without pain and that, while at the previous study he could not keep the limb elevated for more than two minutes without severe anoxic pain, he was able to keep the foot elevated for fully ten minutes without symptoms at this examination On dependency, the right foot was found to be ruborous but not cadaveric on elevation, while the left foot was typically cadaveric on elevation and slightly ruborous on dependency Oscillometry was found to be diminished as compared with the study made twenty-two days previously, which was possibly due to the progress of the disease also seen on the left side The skin temperatures in the right toes were somewhat higher than on the left, while the plantar foot and ankle temperatures on the right were considerably higher than those at corresponding levels on the left side

He was re-admitted on July 15, however, because of a cerebrospinal fluid cyst at the wound site and pain along the medial aspect of the right great toe, corresponding to the fourth lumbar dermatome (the root which had not been sectioned) The cyst was tapped on three occasions, and a tight pressure dressing was applied. This resulted in its disappearance and abatement of the pain Skin surface temperature studies on July 30, 1947, showed a rise of 3 degrees in the corresponding areas of the toes as compared with the preoperative studies

When seen in the follow-up clinic on August 18, 1947, three months following operation, the patient stated that he was practically completely free of pain except for a slight degree at night However, he and wife noted that, whereas formerly he could get no more than two hours of sleep a night because of the pain, he now slept the night through He was able to resume his work as a car washer in a garage without pain or discomfort in the foot. The wound on the plantar aspect of the right first toe, which was somewhat slow in healing, however, gradually began to granulate and gave the patient no subjective symptoms He was able to do his usual work with a small dressing on the toe

Comment

Reported herein are two cases of intractable peripheral vascular pain treated by interlaminar rhizotomy The background underlying the evolution of this procedure is discussed

It was felt that the procedure possibly spared each of these patients an amputation

The resultant subjective and objective hypalgesia corresponded to the areas subserved by the sectioned roots

Misgivings as to the possibility of having a useless as well as painless foot as a result of damage to fibers carrying impulses of position sense were not borne out by the results obtained Interestingly enough, although hypalgesia was appreciable, the impairment of position sense was minimal and certainly not enough to impair the usefulness of the foot The explanation of this phenomenon is difficult to find, but it may be postulated that the severance of two adjacent posterior roots, while sufficient to abolish pain in the dermatomes subserved by them, is not sufficient to give a comparable loss of position sense, because of "sensory overlapping" from adjacent dermatomes

Significant motor weakness did not result from the operative procedure in either of these cases and undoubtedly should not if the section is confined to the posterior roots

It is our belief that there has been definite improvement in collateral circulation because of the findings of no improvement in the oscillometric studies—in fact, a diminution in oscillometry in one case—accompanied by definite increase in skin surface temperature readings following the procedure in both cases That this may not be due to a remission, such as occurs with Buerger's disease, is indicated by the fact that the associated osteomyelitic process in the second case remained active in the face of absence of pain and increased circulation to the part Such infection usually precipitates severe pain and angiospasm The osteomyelitis subsequently responded more rapidly with the improved circulatory status

Therefore, it appears that relief of angiospasm in these cases, apart from the associated relief of pain, is attributable to abolition of the vasospastic reflex evoked by the pain factor

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NEW WAYS OF INFLUENCING THE INTRAOCULAR PRESSURE

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(From the McPherson Hospital and the Glaucoma Clinic of Duke University School of Medicine)

EVER since it was recognized that the main feature of glaucoma in general was an increase in intraocular tension, efforts were directed toward reducing this tension Mainly, two ways were followed to accomplish this Due to the fact that drugs which create miosis proved to reduce the intraocular tension, pilocarpine and eserine were used for many years, but, as our knowledge of the mechanism of sympathetic and parasympathetic stimulation increased, numerous compounds were discovered that would have a similar effect, the newest of them being Furmethide (furfuryl-trimethyl-ammonium iodide) and D F P (di-isopropyl fluorophosphate) These compounds are usually either cholin-like substances or cholinesterase inhibitors On the other hand, surgery attained a pre-eminent position for all cases where the intraocular tension could not be normalized by these drugs The principle of almost all the operations for glaucoma was to establish some sort of a safety valve through which the intraocular fluid could escape, which would naturally reduce the intraocular tension Both miotics and filtering operations have their great merits They have saved many eyes from blindness and will always play an important role in the treatment of glaucoma It seems to me, however, that research toward finding new miotics and inventing new filtrating operations has led us, so to speak, into a blind alley Some of the newer miotics are more powerful than pilocarpine and eserine and are able to control some cases that would not be normalized by these drugs, but it was found that some of them may, in some instances, produce side-effects that are undesirable and even harmful This applies to histamine and D F P in particular

As to surgery, it seems to me that this must appear to us as a rather crude treatment The research done during the last few decades has proved that the regulation of the intraocular tension is an extremely complicated and subtle mechanism Most glaucoma operations are crippling injuries to the eye They reduce the tension drastically and may lead to a shallow chamber of long or even permanent duration which causes displacement of the lens and cataract Cyclodiathermy puncture is not exempt from this criticism, as coagulating the ciliary body is a severe injury to the eye These operations certainly cannot be the ultimate answer to the problem Glaucoma research should, therefore, reach out into other directions and tackle the problem from other angles than miotics and filtering operations.

Three years ago, in a paper read in this city, I introduced cyclodiathermy puncture for the first time as an operation for chronic simple glaucoma. Up to then, this procedure had been reserved almost exclusively for desperate cases that had resisted all other treatments Since then, the resident staff of Duke University Hospital and I in my private patients at McPherson Hospital have used this method extensively in almost every kind of glaucoma Although we do not have enough cases in all categories to provide a statistical basis, some general ideas about the indications of the cyclodiathermy puncture are reflected in Tables 1 and 2 In order to keep any personal factor from influencing the statistics I present the results of cases that have not been operated on by me As to the first table, I should say that more cases have been performed, but due to the fact that a great number of our clinic patients live so far away, many of them would not return for observation after an apparently successful operation It is our impression that cyclodiathermy puncture is at least as good as any other operation in the chronic simple glaucoma of

TABLE 1 —RESULTS OF CYCLODIATHERMY PUNCTURE* IN 32 CASES OF CHRONIC SIMPLE GLAUCOMA IN NEGROES

Tension	Number of Cases	Average Period of Observation (Months after C.D P)	Longest Period of Observation (Months after C.D P.)
Normalized	20	11 5	31
Improved but not normalized	7	12 8	32
Not improved	5	14 8	21
Total	32		

* Operations performed by the resident staff of Duke University Hospital

TABLE 2 —INDICATION FOR CYCLODIATHERMY PUNCTURE

A. As first operation
   1 Chronic simple and chronic congestive glaucoma in the Negro To be repeated if necessary
   2 Glaucoma of the aphakic eye.
   3 Congenital glaucoma (hydrophthalmus)
   4 Hemorrhagic glaucoma (malignant)
   5 Glaucoma secondary to thrombosis of central retinal vein
   6 Glaucoma combined with rubeosis iridis in diabetes.

B As second operation
   1 Chronic simple and chronic congestive glaucoma in the white after failure of filtering operation.
   2 In all conditions mentioned under A.

Presented, by invitation at the 142nd Annual Meeting of the Society of the State of New York New York Academy on Ophthalmology and Otolaryngology May

the Negro In fact we think it is better, less traumatizing, and easier to perform Even Iliff, who presented one of the most optimistic statistics on the result of filtering operations in the Negro, reports only 54 2 per cent of the cases controlled [1] As to the second table, it must be mentioned that I have used cyclodiathermy puncture as a first operation in several cases of chronic simple glaucoma in white patients also The results were similar to those in the Negro, and no untoward side-effects were noted Nevertheless, having had excellent results with the combined iridencleisis-sclerectomy operation in those cases, I did not see sufficient reason to abandon this technic in favor of cyclodiathermy puncture

It is the purpose of this paper to demonstrate methods, other than miotics and operation, of influencing the intraocular tension We do not pretend to have found the ultimate answer to glaucoma but wish to report the results of our investigations with the hope that they may stimulate the imagination and the efforts of others

Before describing the details of our work it may be appropriate to review briefly the factors that might have an influence on the intraocular tension. The maintenance and regulation of the intraocular pressure is based on the balance of inflow and outflow of the intraocular fluid There must be a central regulating mechanism which probably consists of a combined action of the autonomous nervous system and of hormones The ideal treatment would be to influence this regulating mechanism from a central point The complexity of symptoms that result from the use of drugs acting on the sympathetic and the parasympathetic system in general makes it difficult to restrict their effect to the eye as desired

Disregarding purely anatomic shortcomings such as are present, for instance, in congenital glaucoma, the blood-aqueous barrier, which separates the blood plasma from the intraocular fluid, plays a most important role Be it the secreting apparatus of the ciliary body or the capillary walls in general, the fluid has to pass through that barrier from the vascular system into the eye The capillary walls represent a semipermeable membrane Therefore, an equilibrium of osmotic pressure tends to establish itself on either side of the membrane According to Kinsey and Grant, electrolytes, secreted by the ciliary body in excess of their concentration in the blood, will make water pass through the membrane and thereby create intraocular pressure The excess pressure would be disposed of by the outflow through Schlemm's canal Any change in osmotic pressure on either side of the blood-aqueous barrier will necessarily affect the traffic of water from one side to the other and by that change the intraocular pressure (Fig 1) Aside from the strictly osmotic phenomena, there is a traffic of water and other substances through the membrane that is controlled by the hydrostatic pressure and by the state of permeability of the blood-aqueous barrier Therefore, changes in the permeability of the membrane may also indirectly influence the intraocular tension These three factors, the autonomic nervous system, the osmotic pressure, and the permeability of the blood aqueous barrier, were the object of our experimental and clinical investigations

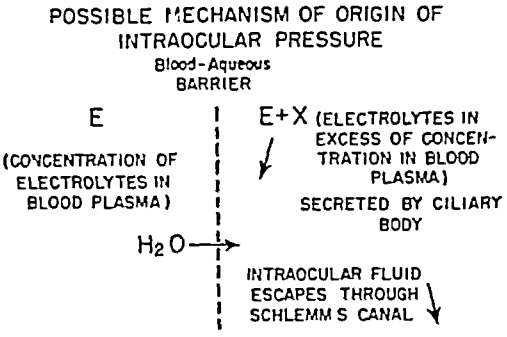


FIG 1 Increased concentration of electrolytes induces water to travel through capillary walls from blood into eye

Considerable work had been done previously by others in order to study the role of the autonomic nervous system in regulating the intraocular tension We will be able to mention only a few attempts briefly Extirpation of the superior cervical sympathetic ganglion has been done in cases of glaucoma The results were inconsistent Sympathetic paralyzers, like ergotamine, were used Results were sporadically encouraging Undesirable side-effects would limit their use. Parasympathetic stimulants, like Pacyl, were used with some effect, but the problem is far from being solved Therefore, we tried to gather some additional information Opportunity for such a study presented itself in two ways First, the surgical treatment of certain cases of arterial hypertension, more widely practiced recently, made it possible to observe the effect of the removal of various parts of the sympathetic nervous system on the eye and on the intraocular tension in particular Second, new drugs acting on the sympathetic and parasympathetic system were made available Our investigation is still in the experimental stage, but some interesting facts have already been gathered

Unilateral or bilateral lumbodorsal sympathectomy would not have any significant effect on either the size of the pupil or the intraocular tension Bilateral, total, transthoracic sympathec-

tomy would result in a moderate lowering of the intraocular tension between 3 to 7 mm Hg observed over a period of three months after the operation Horner's symptom complex would result on one side but not on the other In another case, the same operation would not have any marked influence on the intraocular tension but would result in a low-grade bilateral miosis without enophthalmus We do not know yet what brings about the different reaction to the same type of operation

Tetraethyl-ammonium-chloride (Etamon) is known to have a paralyzing effect on both the sympathetic and parasympathetic nervous systems A nice illustration of this fact could be seen in Dr Hendrix's case, observed at Duke Hospital, of unilateral Horner's symptom complex of unknown origin After intravenous administration of Etamon the small Horner pupil enlarged some and was brought to the same size as the moderately dilated pupil of the normal side as both sphincter and dilator became paralyzed on both sides Etamon also reduces the blood pressure temporarily In a case with occlusion of the central retinal artery we obtained a transitory reduction of the intraocular tension from 19 to 11 and 22 to 13 mm Hg, respectively It is possible that this observation might lead us to a new treatment of acute glaucoma Studies with a somewhat similar substance, Priscol, are also being done, but it is still too early to report any practical results

Attempts to influence the intraocular tension by drastically altering the composition of the blood serum have been successful in cases of acute glaucoma for a long time By injecting hypertonic solutions of salt or glucose intravenously, the osmotic pressure of the blood can be raised Water will flow from the tissue into the blood. The eyeball, by losing part of its water content, may become softer Such drastic measures are obviously not applicable to chronic simple glaucoma Having witnessed the dramatic results of a strict rice diet given by Kempner at Duke Hospital in certain cases of cardiovascular-renal disease, we investigated what influence such a diet would have on the intraocular tension In 12 cases of general hypertension not suffering from glaucoma, the intraocular tension was taken before and after the rice diet was instituted All of them showed a marked reduction of the intraocular tension to a variable degree Reductions from 5 to 7 mm over long periods were not uncommon Most of the cases also reacted with a lowering of the systolic and diastolic blood pressure However, there was no definite parallelism between the drop of tension in the two systems Some cases that responded with a marked lowering of blood pressure had only moderately reduced intraocular pressure, whereas cases with a relatively poor response of the blood pressure would show a considerably lower intraocular pressure Control cases, which had been treated for arterial hypertension but which had not received the rice diet, showed a marked reduction in blood pressure but practically no lowering of the intraocular tension (Figs 2 and 3) *

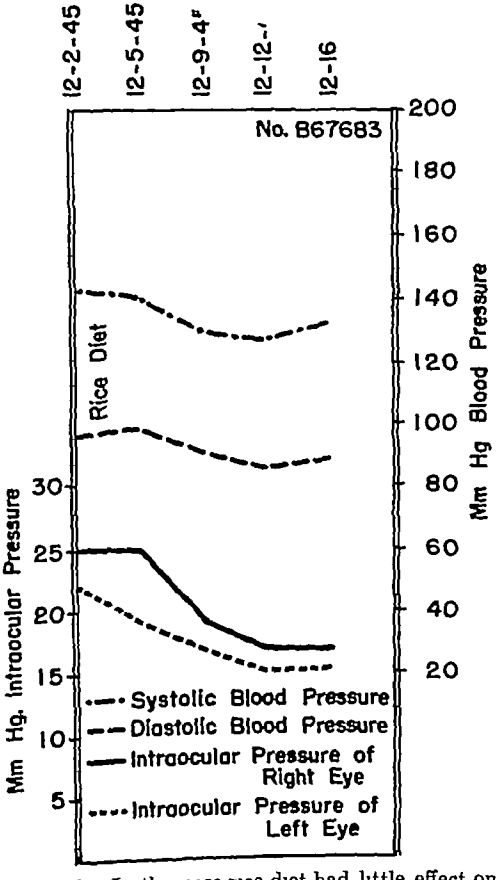


FIG 2 In this case rice diet had little effect on blood pressure but was followed by marked reduction of intraocular tension

The explanation of the phenomenon of the reduction in intraocular tension by the rice diet is still hypothetical For a while we thought that a relative depletion in chlorides of the tissues, brought about by the low chloride rice diet, might have something to do with it, but, recently, we are more inclined to attribute the drop in tension to a possible reduction in the secretion of sodium by the ciliary body This would be in line with the changes taking place in the kidney There

* Complete report to be published in *Archives of Ophthalmology*

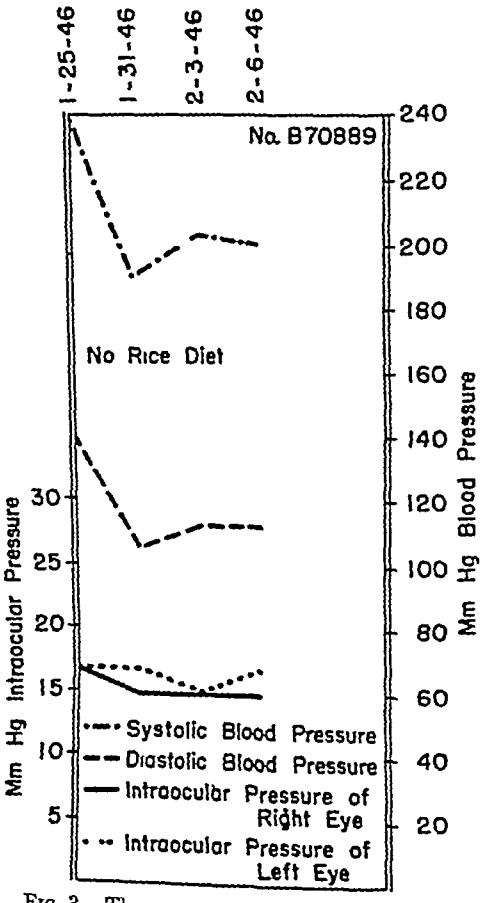


FIG 3 This case was not on rice diet Reduction of blood pressure had no effect on intraocular tension.

we do not have a process of secretion where the sodium is concerned but rather one of reabsorption of sodium in the tubules, which is diminished following the use of the rice diet Whatever the explanation may be, however, the fact exists that the intraocular tension may be influenced by dietary measures under certain circumstances Whether the rice diet will prove to be of value in the treatment of glaucoma is not yet ascertained We are just beginning to try it out in cases of primary glaucoma

The studies of the influence of permeability of the blood-aqueous barrier on the intraocular tension have carried us somewhat farther than the ones on the autonomic nervous system and dietary problems These studies have passed the experimental stage, and a new treatment of glaucoma adjuvant to the treatment with miotics can be devised In order to describe our work in this field, we have to go back to the miotics and their effects on the eye

The current explanation of the reduction of intraocular tension by miotics may be summarized as follows

1 Contraction of the pupil and the ciliary muscle pulling on the scleral spur will widen the chamber angle and facilitate the escape of fluid into Schlemm's canal

2 Dilation of the smaller blood vessels to a various degree promotes absorption of fluid through the choroidal venous plexus, while the arterial supply of the ciliary body is supposed to be reduced by compression of the smaller arteries in that area, due to the contraction of the ciliary muscle

Besides these two main effects, an important side-effect of miotics, the increase in permeability of the blood-aqueous barrier, has been demonstrated by various observers I could confirm these observations using the electrophotofluorometric method [2]

The influence of this side-effect, the increase in permeability of the blood-aqueous barrier on the intraocular tension, has not yet been clearly established Von Sallman and Dillon, explaining the rise of tension following the administration of di-isopropyl fluorophosphate in some of their experimental animals, attribute this rise to the increased permeability of the blood-aqueous barrier [3] From clinical experience I am inclined to believe that increased permeability may be followed by either lowering or raising the intraocular pressure It is not quite clear, though, why in some cases the one occurs and in some the other It seems, however, that the occasional rise of tension, observed clinically after the administration of a miotic, could be explained on this basis The tension-reducing component of contracting the pupil and the ciliary muscle may become partly or totally offset by the side-effect of increasing the permeability of the blood-aqueous barrier In cases where the outflow of fluid is still fairly well maintained, the tension will still be reduced by the miotic In some cases where the outflow is very much reduced, the increase in permeability of the blood-aqueous barrier might lead to a rise of intraocular tension On the other hand, if the increase in permeability could be prevented or reduced, the tension-reducing action of the miotic might be enhanced

This reasoning was the basis of animal experiments and clinical studies It is now well known that certain glucosides belonging to the flavonol group have a definite influence on the permeability and the fragility of the capillaries The first substance of this kind was discovered by Szent-Györgi and his coworkers [4] It was extracted from lemon and called citrin or Vitamin P (P stands for permeability) In our experiments,

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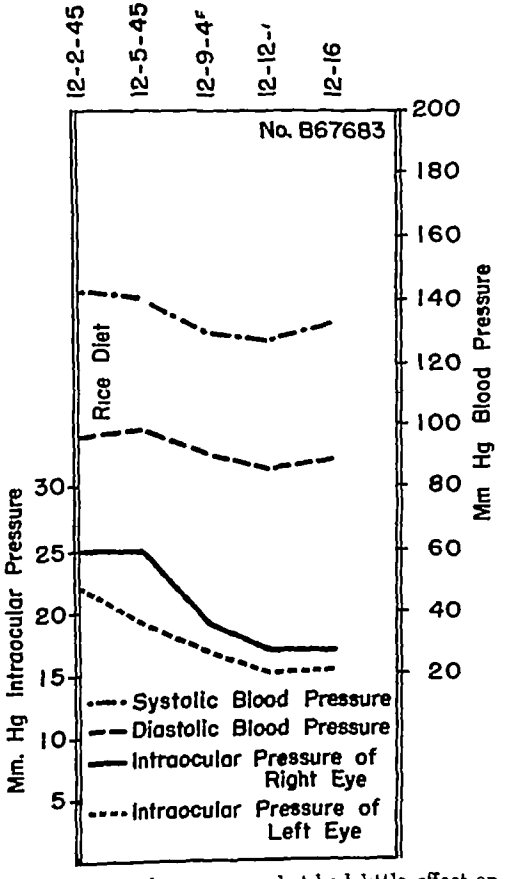


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* Complete report to be published in *Archives of Ophthalmology*

the base-peak range to be recorded after rutin treatment (Table 3)

The cases were then classified as improved, questionable, and not improved In order to be recorded as improved, a reduction of the peak pressure of about 15 per cent was considered to be significant enough. Smaller reductions were classified as questionable, or if the reduction was insignificant, as not improved The result was as follows improved 17, questionable 4, and not improved 5, making a total of 26 cases

The peak pressure was chosen for this classification partly because the base pressure was already within normal limits or even rather low in a number of cases One could hardly expect much change in those figures In the eight cases where the base pressure before rutin treatment was over 25 mg Hg (Schioetz) four were improved, one questionable, and three not improved

Case 15 deserves special attention It showed the most spectacular reduction in pressure after rutin was instituted The fact that in this case the tension rose after pilocarpine was used is apt to support the theory advanced above. First, the permeability of the blood-aqueous barrier was increased by the pilocarpine nullifying the beneficial effect of miosis After the blood-aqueous barrier was tightened by rutin, the miotic could display its full tension-reducing action (Fig 4)

The number of cases reported is not very large, certainly not large enough that percentage figures with statistical value could be drawn from their response to the combined treatment with miotics and rutin Nevertheless, the fact is quite impressive that, of 26 eyes, 17 would respond considerably better to miotics after they had been given 60 mg per day of rutin orally over a period of four weeks * The period of observation after the rutin treatment was instituted appears to be long enough to exclude largely the factor of coincidence It is most probable that rutin is able to reduce the permeability of the blood-aqueous barrier and thereby enhance the tension-reducing effect of miotics Therefore, rutin is to be regarded as a valuable adjuvant to the treatment with miotics and will make it possible to control a number of cases which would not be controlled by miotics alone, thereby averting or delaying surgery

* Recently we have given 60 mg of rutin three times a day It appears that even larger doses could be used without ill effects

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SCIENTIFIC EXHIBITS
1949
ANNUAL MEETING

Applications for space for the scientific exhibits should be made directly to the Chairman of the Subcommittee on Scientific Exhibits of the Convention Committee

Dr J G Fred Hiss
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The Annual Meeting will be held May 2 to 6, 1949, at the Hotel Statler in Buffalo

No applications can be considered after January 1, 1949

There will be two groups of awards

Awards in Group I are made for exhibits of individual investigation, which are judged on the basis of originality and excellence of presentation.

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W P ANDERTON, M D , *Secretary*

TABLE 3.—BASE PEAK TENSION OF 26 EYES WITH GLAUCOMA SIMPLEX BEFORE AND AFTER ADJUVANT RUTIN THERAPY

Case	Tension in Mm. Hg (Schioetz) Before Rutin Low	Before Rutin High	Tension in Mm Hg (Schioetz) After Rutin Low	After Rutin High	Period of Observation After Rutin Months	Remarks
1	19	29	25	27	6	Not improved
2	38	45	28	35	17	Improved
3	38	40	32	38	1½	Not improved (surgery)
4	20	30	19	23	9	Improved
5	20	30	20	25	9	Improved
6	32	35	29	35	5	Not improved
7	17	18	14	19	15	Controlled before and after rutin
8	22	28	19	25	10	Questionable
9	30	30	19	22	28	Improved
10	25	30	19	25	28	Improved
11	27	32	24	38	8	Not improved
12	25	38	23	29	8	Improved
13	17	30	17	20	7	Improved
14	25	28	16	17	6	Improved
15	35	38	17	19	6	Improved
16	20	30	22	27	6	Questionable
17	26	26	26	29	6	Not improved
18	23	30	19	23	4	Improved
19	18	31	19	25	12	Improved
20	17	30	20	23	12	Improved
21	19	30	21	25	3	Improved
22	21	40	20	23	3	Improved
23	22	30	18	22	10	Improved
24	18	28	15	17	10	Improved
25	20	40	21	30	6	Questionable
26	20	35	21	26	6	Improved

rutin ($C_{27}H_{30}O_{16}3H_2O$) was used This substance was isolated first from cured tobacco by the Eastern Regional Research Laboratory, United States Department of Agriculture, later from buckwheat and now is commercially produced

The experiments with rabbits had shown that no influence on the permeability of the blood-aqueous barrier could be observed after the animals had been fed 20 mg of rutin per day for three weeks If an animal prepared in this way received one drop of ½ per cent eserine three times a day for two days, the permeability of the blood-aqueous barrier to fluorescein was increased some, but in a control animal, which had not received rutin, the same treatment with eserine was followed by a much more pronounced increase in permeability

The clinical experiments were arranged in the following way * From a larger group of patients with various types of primary and secondary glaucoma that had received rutin, a group of 26 eyes with uncomplicated primary glaucoma in 15 patients was selected for final consideration The same kind of miotic was used during the whole period of observation A number of cases had to be excluded because the follow-up was not satisfactory, various miotics had been used, or the length of time under observation had not been sufficient Otherwise, the cases were unselected The tension was taken regularly for a variable period of time and as much as possible at the same time of the day Then, rutin, 20 mg three times a day, was given by mouth while the same type of miotic was used The tension continued to be recorded the same way at regular intervals The average length of observation after the institution of the rutin treatment was seven and eight tenths months, the shortest three months, the longest twenty-eight months, with exception of one case which did not respond and was operated on after one and a half months In order to get information on how the rutin treatment might have influenced the tension-reducing action of the miotic, the lowest and the highest reading during the periods before and after the rutin treatment was recorded The principle of base and peak tension, introduced by Reese, was adopted for these recordings and proved very illustrative.

Since rutin has a vitamin rather than a pharmacologic effect, a period of three to four weeks treatment will be necessary in order to expect a definite influence on the condition of the capillary walls Therefore, only recordings obtained four weeks after the rutin treatment had been instituted were considered for the establishment of

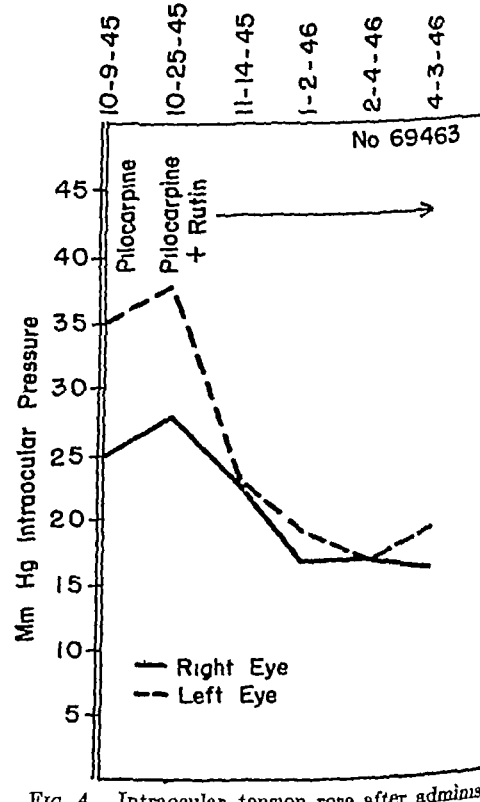


FIG 4 Intraocular tension rose after administration of pilocarpine but fell drastically after rutin was added

* Complete report to be published in *Archives of Ophthalmology*

ıe base-peak range to be recorded after rutin eatment (Table 3)

The cases were then classified as improved, uestionable, and not improved In order to be orded as improved, a reduction of the peak essure of about 15 per cent was considered to be gnificant enough. Smaller reductions were clas-fied as questionable, or if the reduction was insig-ficant, as not improved The result was as llows improved 17, questionable 4, and not nproved 5, making a total of 26 cases

The peak pressure was chosen for this classifica-on partly because the base pressure was already ithin normal limits or even rather low in a num-er of cases One could hardly expect much ange in those figures In the eight cases where ıe base pressure before rutin treatment was ver 25 mg Hg (Schioetz) four were improved, ne questionable, and three not improved

Case 15 deserves special attention It showed e most spectacular reduction in pressure after ıtin was instituted The fact that in this case ıe tension rose after pilocarpine was used is apt support the theory advanced above First, the ermeability of the blood-aqueous barrier was in-reased by the pilocarpine nullifying the benefi-ıal effect of miosis After the blood-aqueous arrier was tightened by rutin, the miotic could splay its full tension-reducing action (Fig 4)

The number of cases reported is not very large, certainly not large enough that percentage figures with statistical value could be drawn from their response to the combined treatment with miotics and rutin Nevertheless, the fact is quite impressive that, of 26 eyes, 17 would respond considerably better to miotics after they had been given 60 mg per day of rutin orally over a period of four weeks * The period of observation after the rutin treatment was instituted appears to be long enough to exclude largely the factor of coincidence It is most probable that rutin is able to reduce the permeability of the blood-aqueous barrier and thereby enhance the tension-reducing effect of miotics Therefore, rutin is to be regarded as a valuable adjuvant to the treatment with miotics and will make it possible to control a number of cases which would not be controlled by miotics alone, thereby averting or delaying surgery

* Recently we have given 50 mg of rutin three times a day It appears that even larger doses could be used without ill effects

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5 Reese A B Am J Ophth 31 25 (1948)

SCIENTIFIC EXHIBITS
1949
ANNUAL MEETING

Applications for space for the scientific exhibits should be made directly to the Chairman of the Subcommittee on Scientific Exhibits of the Convention Committee

Dr J G Fred Hiss
505 State Tower Building
Syracuse 2, New York

The Annual Meeting will be held May 2 to 6, 1949, at the Hotel Statler in Buffalo

No applications can be considered after January 1, 1949

There will be two groups of awards

Awards in Group I are made for exhibits of individual investigation, which are judged on the basis of originality and excellence of presentation.

Awards in Group II are made for exhibits which do not exemplify purely experimental studies and which are judged on the basis of excellence of presentation and correlation of facts

W P Anderton, M D, *Secretary*

TABLE 3 —BASE-PEAK TENSION OF 26 EYES WITH GLAUCOMA SIMPLEX BEFORE AND AFTER ADJUVANT RUTIN THERAPY

Case	Tension in Mm Hg (Schioetz) Before Rutin Low	High	Tension in Mm Hg (Schioetz) After Rutin Low	High	Period of Observation After Rutin Months	Remarks
1	19	29	25	27	6	Not improved
2	38	45	28	35	17	Improved
3	38	40	32	38	1½	Not improved (surgery)
4	20	30	19	23	9	Improved
5	20	30	20	25	9	Improved
6	32	35	29	35	5	Not improved
7	17	18	14	19	15	Controlled before and after rutin
8	22	28	19	25	10	Questionable
9	30	30	19	22	28	Improved
10	25	30	19	25	28	Improved
11	27	32	24	38	8	Not improved
12	25	38	23	29	8	Improved
13	17	30	17	20	7	Improved
14	25	28	19	17	6	Improved
15	35	38	17	19	6	Improved
16	26	30	22	27	6	Questionable
17	26	26	26	29	6	Not improved
18	23	30	19	23	4	Improved
19	18	31	19	25	12	Improved
20	17	30	20	23	12	Improved
21	19	30	21	25	3	Improved
22	21	40	20	23	3	Improved
23	22	30	18	22	10	Improved
24	18	28	15	17	10	Improved
25	20	40	21	36	6	Questionable
26	20	35	21	20	6	Improved

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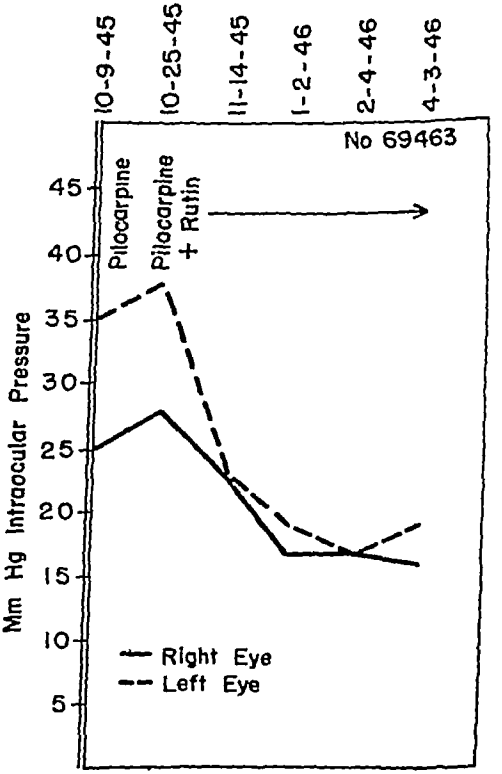


FIG 4 Intraocular tension rose after administration of pilocarpine but fell drastically after rutin was added

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Mechanics of the Bronchial Tract

In order to understand the peculiar physical signs produced by nonopaque foreign bodies, it is important that one should have a basic knowledge of the mechanics of the bronchial tract during respiration It must be remembered that the bronchi are not rigid tubes and that during inspiration they elongate and widen Conversely, on expiration they become shortened and narrowed This constant change in the caliber of the bronchial lumen during respiration plays a major role in the production of the physical signs commonly found when foreign bodies invade the bronchial tract

As a rule, once a nonopaque foreign body, particularly those which are vegetal in type, becomes lodged in the bronchus, a local reaction soon follows, causing a severe edema of the bronchial mucosa which further increases the bronchial obstruction At first, the bronchi being normally widened on inspiration, the invasion of a bronchus by a foreign body produces only a partial obstruction during this phase of respiration. Sufficient space still remains between the foreign body and the bronchial wall to allow the ingress of air However, on expiration the situation becomes entirely reversed The bronchi now normally narrowed, the foreign body and the resulting local mucosal edema will, in varying degrees, obstruct the egress of air from that portion of the lung involved This state of expiratory obstruction results in a hyperdistension of the pulmonary segment distal to the obstructed bronchus In other words, a condition of obstructive emphysema is in the making The mechanics involved in producing this condition are often referred to as an expiratory check valve mechanism. If there is any delay in the removal of the foreign body during this stage of obstructive pulmonary emphysema, the increased mucosal swelling and accumulated secretions resulting from the prolonged local irritating action of the foreign body will now completely cork the bronchus, thereby preventing both the ingress and egress of air from that portion of the lung supplied by the obstructed bronchus The mechanism, which was previously only expiratory in type, has now changed to that of a complete check valve obstruction, and the state of the lung, formerly emphysematous, is now completely atelectactic

Even during this early stage of obstructive atelectasis, the removal of the foreign body and aspiration of the retained secretions will, in many instances, restore the lung to its normal function However, when atelectasis is allowed to exist for a period of time, the resulting pulmonary changes may prove to be irreversible This last stage of complete bronchial obstruction with subsequent pulmonary destruction might never be reached if every pediatrician and general practitioner of medicine considered the diagnostic possibility of aspirated foreign bodies as the causative factor in both children and infants who are suffering from obvious bronchial or pulmonary infection

Symptoms and Physical Signs

The symptoms and physical signs will vary with the degree of bronchial obstruction and the amount of interference with aeration and drainage of the subjacent portion of the lung involved Certain types of nonopaque foreign bodies, beans in particular, which, because of their chemical structure, possess the property of expanding or enlarging in the presence of moisture, may produce a rapid, complete bronchial obstruction, resulting in a massive atelectasis within a few hours following the intrusion Irritating vegetal bodies such as peanut kernels will usually set up a violent reaction immediately following the bronchial lodgement

Early in the beginning of obstructive emphysema, the symptoms are mainly those of laryngeal stridor, bronchial wheezing, cough, dyspnea, rapid pulse, and slight elevation of temperature If the aspirated foreign body is unusually large and becomes lodged in the laryngeal ventricle or trachea, in addition to the above symptoms there will also be present a marked retraction of the suprasternal fossa and indrawing of the abdomen in the xiphoid region Tracheal foreign bodies may quickly give rise to a bilateral obstructive emphysema, and the entire picture is often confused with bronchial asthma Sudden asphyxia and death may be the penalty for any delay in the removal of the foreign body The child or infant with marked respiratory difficulty is usually very restless, and, when closely observed, its body invariably is in the knee-chest position In obstructive emphysema inspection usually reveals a limited pulmonary expansion of the involved side The percussion note is slightly hyperresonant, and the diaphragmatic excursion is limited Auscultation reveals diminished or distant breath sounds with asthmatoid-like wheezing on the affected side

Roentgenologic Findings

In obstructive emphysema, the conventional x-ray films of the lungs will show a greater transparency on the obstructed side Figure 2 is a roentgenogram of an eight-year-old boy Made on deep expiration, it shows obstructive emphysema of the left lung due to a nonopaque foreign body partially obstructing the left main stem bronchus The difference in density of the lung fields can readily be seen since the left lung,

PHYSICAL AND ROENTGENOLOGIC FINDINGS IN THE EARLY DIAGNOSIS OF NONOPAQUE FOREIGN BODIES OF THE BRONCHIAL TRACT

ARTHUR Q PENTA, M D , Schenectady, New York

(From the Department of Broncho-esophagology Ellis Hospital)

NONOPAQUE foreign bodies, particularly in children and infants, present a most troublesome problem in diagnosis, since in many instances they are frequently overlooked as a diagnostic possibility It is only when severe pulmonary reaction has already taken place that these patients are sent to the bronchoscopist for examination Unfortunately, because of inadequate history and due to the fact that these foreign bodies are not visualized by the conventional x-ray films of the chest, many of these patients developing pulmonary symptoms are at first treated for bronchitis or pneumonia

The early diagnosis and localization of nonopague foreign bodies demands a thorough understanding and interpretation of physical and radiographic findings of the chest The altered normal mechanics of the bronchial tract during respiration caused by the lodgement of a foreign body and the subsequent pulmonary pathologic changes that follow can usually be demonstrated by a careful physical examination The data thus obtained, used in conjunction with a knowledge of the patient's history, symptoms, and x-ray findings will very often estimate accurately the location and extent of the bronchial pulmonary disease from which the patient is suffering

The abiding aim in the writing of this article is to provide a practical basis for the diagnosis of nonopaque foreign bodies In many instances, particularly in smaller communities, it is not unusual that the bronchoscopist is the first to be consulted regarding the existence of a foreign body in the bronchial tract Unless he is fortunate in having at his immediate disposal the services of a trained internist and radiologist, he must rely entirely upon his own ability to establish the diagnosis He must be able to carry out a complete physical examination of the chest in order to detect abnormal physical findings Moreover, he must be able to interpret his own x-ray and fluoroscopic study Fluoroscopy is by far one of the most important procedures in the diagnosis of nonopaque foreign bodies Furthermore, in all patients suspected of having a foreign body obstruction, lateral as well as anteroposterior roentgenograms should always be made Errors in diagnosis with subsequent delay in the removal of nonopaque foreign bodies may lead to a fatal outcome (Fig 1)

One of the most important considerations in the diagnosis of foreign bodies is a careful history In every child or infant, seen for the first time, who is suffering from obvious respiratory difficulty or pulmonary infection, the history obtained from the parents should always include information regarding recent attacks of coughing and choking while eating or drinking If wheezing is present, special note should be made regarding duration and mode of onset A careful history thus obtained may prove to be a very important clue in the diagnosis of aspirated foreign body In an excellent article written by Dr Lyman Richards in 1931, entitled "Forgotten Foreign Bodies", he states that the history of a foreign body is often available but must be extracted from parents who may fail to consider their suspicions of sufficient moment to mention them.[1]



FIG 1 Postmortem specimen of right lung showing a large piece of nut obstructing the right main stem bronchus Prolonged pulmonary suppuration resulted in this forty-six-year-old woman's death At no time during her illness had any thought been given to the possibility of a foreign body as the causative factor

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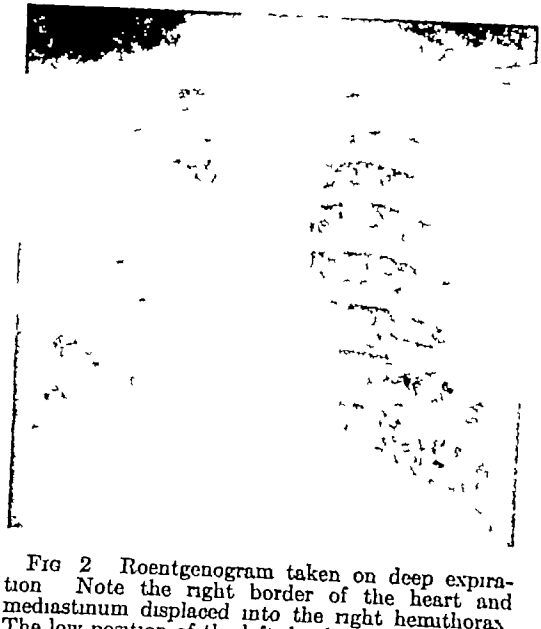


FIG 2 Roentgenogram taken on deep expiration Note the right border of the heart and mediastinum displaced into the right hemithorax The low position of the left diaphragm is abnormal in expiration.

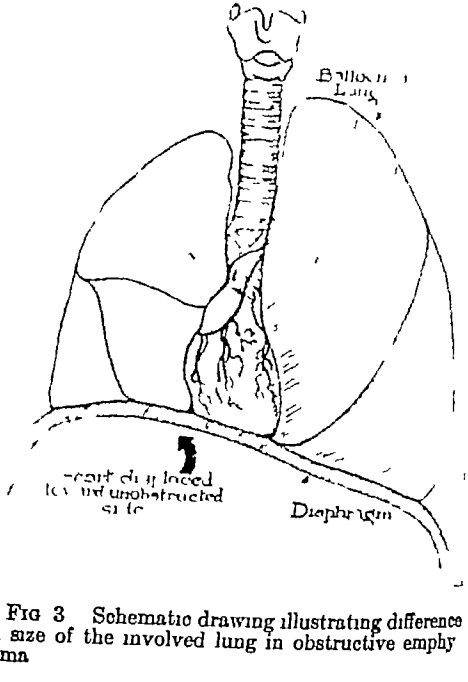


FIG 3 Schematic drawing illustrating difference in size of the involved lung in obstructive emphysema

being hyperdistended with air, is darker in appearance than the right lung If the ballooning of the lung is marked, the axis of the ribs is changed, resulting in a widening of the intercostal spaces

The dome of the diaphragm is, at first, only slightly depressed, but as the lung becomes more distended with air it tends to become flattened A very important finding is the slight displacement of the heart shadow toward the uninvolved side which appears more marked in films taken on expiration The limited diaphragmatic excursion on the obstructed side and the shifting of the heart shadow toward the uninvolved side during expiration is very diagnostic of obstructive emphysema (Figs 2 and 3)

Once obstructive atelectasis has developed, the physical signs and x-ray findings are completely changed Instead of a hyperresonant note on percussion, the note is now dull and borders on flatness Auscultation reveals the breath sounds to be extremely distant or entirely absent The x-ray findings now reveal a marked density of the pulmonary area involved, the intercostal spaces are narrowed, the diaphragm is elevated and the mediastinal structures are now displaced toward the affected side due to the increased negative pleural pressure (Fig 4) Figure 5 is a schematic drawing illustrating the relative disproportion in size of the involved lung in massive atelectasis Fluoroscopic examination reveals a dense homo-

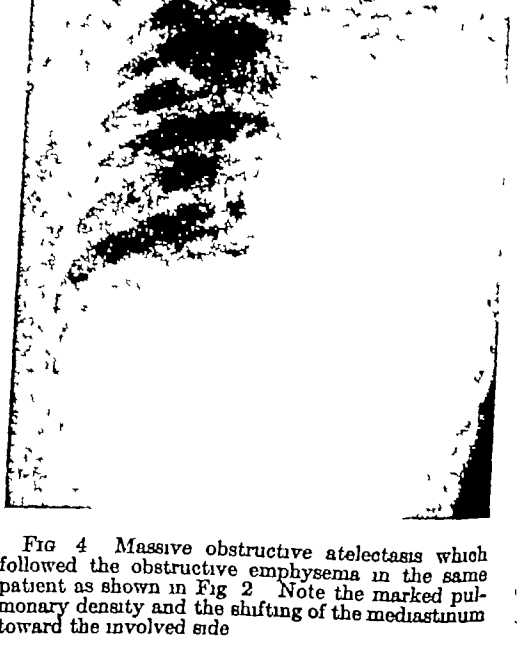


FIG 4 Massive obstructive atelectasis which followed the obstructive emphysema in the same patient as shown in Fig 2 Note the marked pulmonary density and the shifting of the mediastinum toward the involved side

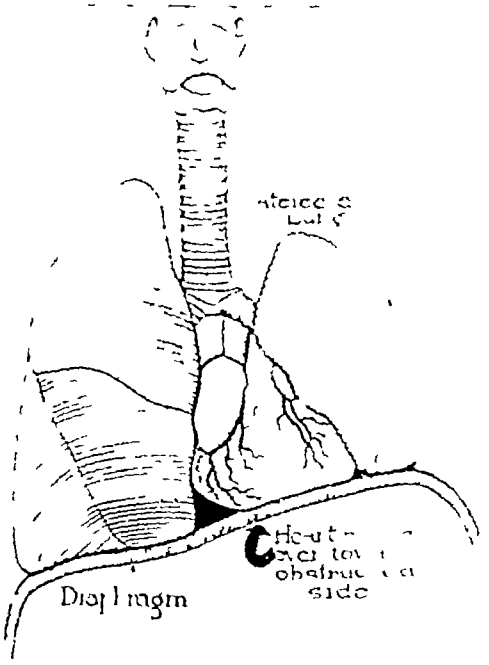


FIG 5 Schematic drawing illustrating the appearance of the involved lung in atelectasis

geneous shadow with arrested diaphragmatic movement on the involved side

Pulmonary Complications

During the stage of obstructive emphysema the majority of patients with nonopaque bronchial foreign bodies will make an uneventful recovery following the early bronchoscopic removal of the offending agent However, if there is any delay in the removal of the foreign body, massive atelectasis will soon follow The error and delay in diagnosis in the case of this boy resulted in beginning empyema (Fig 6) A thoracotomy with tube drainage was performed on the patient, but no improvement followed this operation The patient was referred for bronchoscopic examination Even at this late stage no thought had been given to the possibility of a foreign body obstruction as the cause of the patient's illness Figure 7 is a roentgenogram taken two weeks after the endoscopic removal of the foreign body, which proved to be the rubber sac of a fountain pen (Fig 8)

The usual sequence of events which generally take place when obstructive atelectasis is allowed to go untreated for a period of time is pulmonary suppuration with abscess formation, perforation of the lung, and pyopneumothorax In a certain

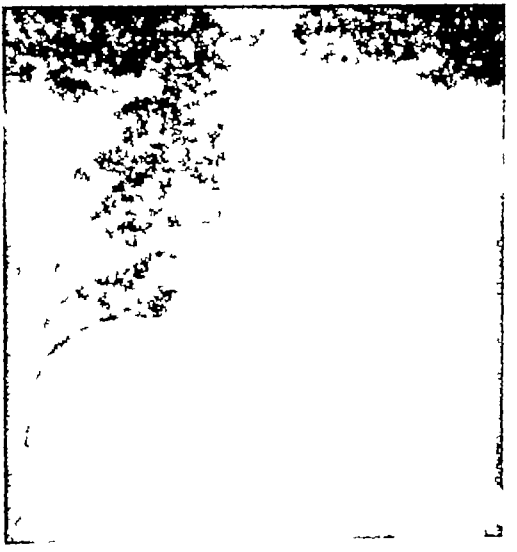


FIG 6 Roentgenogram of same patient taken two weeks later showing the pulmonary complications which eventually follow if obstructive atelectasis remains untreated

percentage of cases, a marked destruction of the bronchial wall takes place, with the subsequent formation of bronchiectasis

Treatment

It is imperative that, in patients developing the above complications, thoracic surgery in some form or other be resorted to immediately as a life-saving measure Chemotherapy should always



FIG 7 Roentgenogram taken two weeks after removal of foreign body



FIG 8 *Nonopaque foreign body which has remained in the left main stem bronchus of patient for eight weeks*

be instituted as a routine procedure following the bronchoscopic removal of bronchial foreign bodies Follow-up x-ray study should always be done to exclude the presence of a second foreign body which may have been overlooked during the first examination No patient should be discharged from the hospital following the removal of a foreign body unless the physical examination and x-ray findings reveal the lung involved to be completely aerated and regaining its normal function

Summary

Nonopaque foreign bodies in the bronchial tract if not removed early may cause severe and fatal pulmonary destruction Adequate history and special attention to the physical and x-ray findings are of the utmost importance in the diagnosis of nonopaque foreign bodies Inadequate history and misinterpretation of the physical findings when a patient is first seen may lead to irreversible pulmonary damage In all children and infants presenting the symptoms of laryngeal stridor, cough, bronchial wheezing, dyspnea, and elevation of temperature, the possibility of aspirated foreign body should always be strongly considered as a diagnostic possibility, and no time should be lost in seeking bronchoscopic consultation

1301 UNION STREET

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TREATMENT OF LEUKEMIAS AND LYMPHOMAS

In the October, 1948, issue of *California Medicine*, Howard R Bierman, M.D , discussed the newer methods of treatment in these serious conditions and summarized them as follows

The early localized lesion of a lymphoma which shows no evidence of spread to other areas is best treated by wide surgical excision followed by maximum, intensive x-ray irradiation

Total body irradiation appears to be the treatment of choice for chronic myelogenous leukemia in most instances Radioactive phosphorus (P^{32}) is as effective, but the current difficulty of obtaining and handling the material limits its use to research institutions Other radioactive elements as therapeutic agents at this time are neither as effective nor as practical for use as x-ray irradiation in treating neoplastic disease of the lymphoma group

There has been no authenticated cure of any of the lymphomas and leukemias through treatment with any of the many chemotherapeutic agents tried in the past twenty years

The nitrogen mustards have been shown to arrest the course of Hodgkin's disease in the majority of cases, but the change is temporary In general, patients with Hodgkin's disease who have had no previous therapy have responded better and for longer remissions than those who have had x-ray therapy and are no longer responding favorably

Urethane will alter the course of chronic myelogenous leukemia favorably, but the change is transient, and no permanent benefit has resulted yet.

The mycosis fungoides and neoplastic disease of the giant follicular lymphoma group also respond favorably to the nitrogen mustards, the response being similar to that noted in the Hodgkin's disease group The nitrogen mustards are a valuable adjunct to x-ray therapy in the treatment of Hodgkin's disease, mycosis fungoides, and giant follicular lymphoma.

The remainder of the lymphomas and leukemias have shown transient response to the nitrogen mustards but in a much smaller percentage of patients.

Folic acid derivatives, such as pteroyldiglutamic acid and pteroyltriglutamic acid, are as yet unproved as effective palliative agents in any of the lymphomas and leukemias

The administration of a folic acid antagonist, 4-aminopteroylglutamic acid, has been followed by temporary remissions in some cases of acute leukemia in children There is no basis at this time for considering this compound as more than an arresting agent in some cases

Many other agents are being actively investigated for their effect upon neoplastic diseases None of these, however, can be recommended for general use as yet

THE PRESENT STATUS OF THE FENESTRATION OPERATION

J Morrisset Smith, M D , New York City

IT HAS been known since the early part of the eighteenth century that the hearing could be restored in certain types of deafness by making an opening in the capsule of the internal ear, either through the horizontal, posterior, or superior semicircular canals or in the cochlea Unfortunately, these results were always transient, with the hearing improvement disappearing in a short time. Despite the use of various types of grafts, fatty tissue, and the wide variety of technics employed, the results were always the same

These sporadic attempts to restore permanent hearing continued throughout the eighteenth century without success In the early part of the nineteenth century, the attempt to relieve the deafness due to otosclerosis was given a decided impetus by the work of Barany, Jenkins, Holmgren, and other noted otologists, but the results were still not permanent in any way and the work was criticized by many aural surgeons

In the early twenties of the nineteenth century, Soudille of France conceived the brilliant idea that, if a fistula could be made in the internal ear and then covered with a previously prepared very thin plastic skin flap, permanent hearing might be maintained He reasoned that, if the site of the fistula could be first prepared by furnishing the proper access to it, then at the second operation, the plastic skin flap properly constructed, and finally at a third operation, the fistula established and covered by the delicate plastic skin flap, closure of the fistula might be prevented and a permanent hearing improvement maintained

This highly constructive thinking has resulted in the present, successful fenestration operation Soudille attacked the problem by choosing the horizontal semicircular canal as the site of the fistula and preparing the proper access to it by the removal of the bone in the posterosuperior canal wall, together with the dense bone forming the external wall of the attic and including the bottom of the bridge forming the upper part of the tympanic ring This permitted complete access to the attic space and allowed the removal of the incus and the head of the malleus During this operation, extreme care was taken to separate and preserve intact the delicate layer of skin continuous with the drum membrane and lining the posterior superior canal wall This procedure he designated a "combined atticotympanotomy" This was allowed to heal, and after several months, a plastic flap was constructed from the carefully preserved skin and placed over the site of the fistula with the air space in the tympanum properly maintained He designated this the "internal plastic operation" A few months later, this carefully prepared skin flap, which by this time had become very thin, was gently elevated and the fistula established with an electric burr The flap was then replaced, sealing off the area of the fistula and the epitympanic space Soudille gave a report on the surgical treatment of otosclerosis in England in 1930 and in America in 1934

The prospect of a three-stage operation extending over a period of two years or more was not popular with the laymen or the aural surgeons After an intensive period of preparation, Lempert correlated the different steps of the above technic into a one-stage operation and first performed it as such in 1938 The fenestra was made over the barrel of the semicircular canal, and, while permanent and successful results were obtained, the percentage of good results was small but extremely encouraging The plan of leaving the incus in position and removing the head of the malleus was tried and discarded The next improvement was made by Lempert in 1941 when he moved the site of the fistula forward from the barrel of the semicircular canal to the space over the dome of the vestibule just anterior to the ampullated end of the horizontal canal This was an important contribution and improved the results

The complex nature of the anatomy of the mastoid and the middle and internal ears, together with the very intricate conducting and perceiving mechanism, including the membranous labyrinth, presents many problems to the aural surgeon However, the intensive work and research by the operators seriously interested in this work has resulted in a very fine contribution to the management of otosclerosis One of the important contributions to this progress has been the proper classification of the types of deafness which may or may not be benefited by the operation

In the beginning, there was much confusion concerning the indications for the operation There were conflicting reports concerning successful operations in mixed types of deafness and even cases with very advanced nerve deafness This led to a thorough trial of both these types with full consent of the patients and demonstrated very conclusively that lost nerve function could not be restored by the fenestration operation

It is, therefore, primarily an operation for conduction deafness, and it will not restore the hear-

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hip, where there is a complete destruction of the nerve trunk, there is a certain impairment in most of the cases. In a very large percentage of the cases, the damage to the bearing is a gradual process. In the early stages, the bone conduction of nerve function shows very little impairment, even though the air conduction is considerably reduced. As the condition progresses, the nerve slowly but gradually loses function so that over a long period of time the hearing loss, which began as a conduction deafness, changes to a mixed type with nerve damage and finally ends with a complete nerve deafness and a total loss of hearing in the affected ear.

This emphasizes the very important fact that the ideal time for the intervention to restore the hearing is during the conduction stage of the deafness and that the chances of the operation successfully restoring the hearing decrease in direct proportion to the increase in the loss of bone conduction or loss of nerve function.

The operation to put Eustachi tube should be used. A previous mistaken or unfruitful intention does not prevent a successful tympanoplasty operation provided the tube often has been catheterized and the drum healed. Many of the so called catarrhal deafnesses are included in this category. The primary requisite for the operation is the presence of the necessary residual nerve function that is, when the nerve studies is made, enough nerve impulses must get to the internal ear and the hearing restored. The term "residual nerve function" by the writer, is used to designate the type of deafness suitable for the operation.

Another important consideration in the operation is the amount of improvement in the hearing, in the beginning it required from nine hours to complete it. This time has been reduced to two hours or less in the hands of a competent surgeon, due principally to the better control of the bleeding and the proper anesthetic. The blood is best controlled by using the proper epinephrin, novocain, sodium and cocaine and supplementing them during the operation as necessary, in order to avoid the use of a general anesthetic. Complete control is essential to some of the dangerous after effects of the operation. Where it is necessary to open mastoid process at the same time, a doubt in regard to the time may be expected.

The major problem still confronting this operation is the use of bone to replace the destroyed and eroded ossicles to relay the sound vibrations of the tympanic membrane to the inner ear. Some of the materials used in the attempt to restore hearing have been the use of small metal substances, the use of cosmoids, gold, bone, celluloid, the cartilage of the ear, and other material placed on the edges of the drum. Much of this research has been carried out in animals, but finally must be tried out in patients. Unfortunately, none of them have been able to prevent the formation of new bone to fill more of the drum than is within the head. The best bone used to bridge the gap, it was found that a large number of the patients have continued to enjoy good practical hearing even after the fact that continued research may find a method of preventing the closure of the drum.

Problems of Partial Nerve Deafness

When there is residual bone conduction still the air conduction will below the 25 decibel loss in the three important speech frequencies, the chances of getting practical hearing are poor and the indication for operation very slight. The real problem is presented to both the patient and the aural surgeon when there is a partial loss of nerve function resulting in a mixed type of partial nerve deafness.

When the loss of nerve function is limited and the nerve has not been severely damaged, there is still a chance to shut the progress of the disease and preserve practical hearing for the patient. The fact that a partial impairment of nerve function will prevent a perfect result should be explained to the patient if operation is advised in this type of case. It must be remembered that although such is a progressive disease, and it is rare for an arrested and the hearing maintained at the 30 or even 40 decibel level, a distinct service has been rendered the patient. Undoubtedly the operation for restoration in cases of the cases of partial nerve deafness. Where there is a serious impairment of nerve function, operation will result in no improvement in the deafness than an improvement in the hearing very definitely contraindicated.

Secondary Operations

It was my feeling in the early [illegible] that [illegible] happen [illegible] the new [illegible] [illegible] [illegible]

being a secondary removal is very short and usually completed in a few days

The reason for delaying the secondary removal of the new bone over the fistula is to allow the plastic skin over the fenestra to become as thin as possible, and also the additional time results in a diminished blood supply to the new bone and membranous tissues over it It is my belief that blood is one of the chief causes of failure in this operation. This is especially apt to be true in the occasional case where, with the best indications and a perfect technic, the hearing is either diminished or not improved

The most plausible explanation is bleeding into the vestibule through the fistula after the flap has been placed in position Therefore, it is especially important in the revision that the flap be elevated with the least possible trauma and the bleeding controlled before the fistula is again established and the flap replaced

Two important factors in the technic have had a very material bearing on the results in my experience with the operation The first is the excessive flushing of the cavity with sterile water or normal salt solution during the operation Repeated syringing of the cavity with a stream of solution during the operation, especially with the cortex off and the semicircular canals exposed, results in an almost continuous caloric test similar to the one made by the use of hot and cold water to test the function of the vestibular labyrinth In many instances, the patient has been nauseated and dizzy, with vomiting lasting twenty-four to forty-eight hours in cases where no operation has been performed The excessive use of water during the operation has the same effect, only in a more exaggerated form, and directly contributes to the postoperative labyrinthitis with prolonged nausea, vomiting, and dizziness This does not mean that the bone chips and the bone dust must not be removed during the operation. However, the reduction in the amount of irrigation used has resulted in a marked reduction in the postoperative labyrinthitis Some of the patients have been allowed to get out of bed on the third and fourth day with no ill effects At the conclusion of the operation, before the fistula is made, all available bone chips are removed with cotton-tipped applicators, the smaller ones are then removed by gentle irrigation and suction

During the construction of the fistula a minimum amount of solution is used—just enough to remove the bone dust adequately When the fistula is outlined and the endosteum exposed, all bone dust should be removed by very gentle irrigation and suction Once the endosteum has been removed with the needle and a communication established, excessive irrigation may partly replace the normal labyrinthian fluid with water, thereby contributing to the labyrinthitis, and may interfere with the hearing improvement

The second and more important factor concerns the operative technic in the middle ear and attic space In an effort to improve the results and perform a technically perfect operation, the three semicircular canals were thoroughly outlined, the cells removed in the gutter over the superior and semicircular canal, some of the cellular structure removed in the middle ear to the dural plate in the middle fossa, and the dissection carried too far ahead of the malleus Then the pyramidal eminence was lowered to the *limit, together with the facial ridge practically to* the facial nerve This perfect technic produced, in effect, a radical operation with the skeletal bone so removed that the flap, when placed in position, came in contact with the internal wall of the middle ear with most of the air space in the middle ear eliminated A very active fistula with excellent bone conduction resulted, but the hearing by air conduction was reduced instead of improved

At one period there was a distinct drop in the percentage of successful results It is my opinion at this time that it was directly caused by the technic described above and that better results will be obtained where sufficient skeletal bony structure is allowed to remain at the bottom of the bridge in the roof of the attic and over the region of the eustachian tube in order to maintain properly the air space in the tympanum and prevent the plastic flap from flattening out against the internal wall of the middle ear

It seems to me that better hearing results are obtained with fewer bony closures of the fenestra where the cellular structures in the region of the fistula are allowed to remain as nearly intact as possible and the fistula is established with the least possible trauma to the surrounding bony tissues Both of these factors are controversial, but are well worth careful consideration

There is also a difference of opinion concerning the partial or complete removal of the mastoid cells during the fenestration operation Some operators believe the hearing results are better with a partial removal of the cells Others feel that a complete exenteration of the cells is best

Present Status of the Operation

With the problem of bone regeneration still unsolved and the increasing number of men engaged in the operation and research, it is only natural that there should be a difference of opinion regarding some of the steps of the technic A frank discussion of these problems and reports by the otologists interested in the fenestration operation should result in a continued improvement in the technic and a possible solution to the bony closure of the fistula

ing where there is a complete deafness or where there is a serious impairment or loss of nerve function In a very large percentage of the cases, the damage to the hearing is a gradual process In the early stages, the bone conduction or nerve function shows very little impairment, even though the air conduction is considerably reduced As the condition progresses, the nerve slowly but gradually loses function so that over a long period of time the hearing loss, which began as a conduction deafness, changes to a mixed type with nerve damage and finally ends with a complete nerve deafness and a total loss of hearing in the extreme cases

This emphasizes the very important fact that the ideal time for the fenestration to restore the hearing is during the conduction stage of the deafness and that the chance of the operation successfully restoring the hearing decreases in direct proportion to the increase in the loss of bone conduction or loss of nerve function

The operation is not limited to true otosclerosis cases A previous middle ear or mastoid infection does not prevent a successful fenestration operation provided the infection has long since subsided and the drum healed Many of the so-called catarrhal deafness cases are included in this category The primary requisite for the operation is the presence of the necessary residual nerve function so that, when the new window is made, sound waves may again be conveyed to the internal ear and the hearing restored The term, "clinical otosclerosis," is, therefore, best used to designate the type of deafness suitable for the operation

Another important contribution to the operation is the marked improvement in the technic In the beginning, it required five or more hours to complete it This time has been reduced to two hours or less in the hands of a competent operator, due principally to the better control of the bleeding and the proper anesthesia The blood is best controlled by using the proper sedation, nembutal, neonal, and demarol and supplementing them during the operation as necessary, in order to avoid the use of a general anesthetic Morphine should be avoided because of its depressing effect on the respiration Where it is necessary to give gas and oxygen or ether, a decided increase in the bleeding may be expected

The major problem still confronting this operation is the one of bone regeneration Despite all the research and efforts to solve it, a small percentage of the fistulas will be closed by new bone

Some of the methods used in the attempt to prevent this have been the use of small metal obturators, the use of smooth gold burnishing burrs, the cartilage stopple, and other metal abrasives on the edges of the fistula Much of this research has been carried out in animals, principally monkeys, and some in patients Unfortunately, none of them have been able to prevent the formation of new bone in all cases at the time this is written The lead burr now is being thoroughly tried The fact that a large number of the fistulas have remained open with good practical hearing encourages the belief that continued research may find a method of preventing the closure of the fistula

Problems of Partial Nerve Deafness

Where there is excellent bone conduction with the air conduction well below the 25-decibel level in the three important speech frequencies, the chances of restoring practical hearing are good and the indications for operation very clear The real problem is presented to both the patient and the aural surgeon when there is a partial loss of nerve function resulting in a mixed type or partial nerve deafness

When the loss of nerve function is limited and the nerve has not been seriously damaged, there is still a chance to check the progress of the disease and preserve practical hearing for the patient. The fact that a partial impairment of nerve function will prevent a perfect result should be explained to the patient if operation is advised in this type of case It must be remembered that otosclerosis is a progressive disease, and if it can be arrested and the hearing maintained at the 30- or even 40-decibel level, a distinct service has been rendered the patient Otologists frequently disagree on the indications for operation in some of the cases of partial nerve deafness Where there is a serious impairment of nerve function, operation will result in an increase in the deafness rather than an improvement in the hearing and is very definitely contraindicated

Secondary Operations

It was my feeling in the early stages of this work that there was great danger of destroying the membranous labyrinth when attempting to remove the growth of new bone over the fistula Secondary operations on a number of cases have successfully removed the new bone, restoring and maintaining practical hearing without damage to the membranous labyrinth It is especially indicated when a practical restoration of hearing has resulted and then gradually decreased to its preoperative level over a period of several weeks or months There must be good bone conduction with a minimum or negative response to pressure over the region of the fistula Several months should elapse before the second operation

Where there is a very active fistula with no improvement in the hearing following the first operation, a second operation will not benefit the patient Where the bone has not closed the fistula and a fibrous covering is encountered, attempt to remove it may seriously damage the membranous labyrinth The postoperative healing time fol-

TUBERCULOUS FISTULA

LOUIS S KNAPP, M.D., Buffalo, New York

(From the Buffalo General Hospital)

IT IS not the intention to give a classical description of the various forms of anal tuberculosis in this paper. Also I am not interested in terminal tuberculosis and the forms of anal pathology that go with it. The subject resolves itself then to the tuberculous fistula which has a definite possibility of cure.

It is still common belief that it is dangerous to interfere with tuberculous fistula and that nothing can be done to cure it. It is felt that if healing occurs it will be long and tedious and seldom complete. Many of the physicians treating tuberculosis still are of the opinion that it is useless to try surgery of any description. In ordinary fistula surgery, how often we hear, 'This fistula must be tuberculous because it heals so poorly." This is usually an excuse for inadequate surgery and bears out the general feeling that tuberculous fistula is a more or less hopeless condition. In reference books such quotes as, "The operation should be done with the object of establishing free drainage rather than with the object of curing the fistula and there should be as little cutting as possible." (Mummery) [1] Also, "Excision of the fistula and immediate closure of the wound with sutures should not be attempted whenever tuberculosis is suspected."

"The dense fibrous wall of scar tissue about the sinus is our patient's protection against widespread tuberculosis. The sinuses should be laid open with cautery in the usual manner and all necrotic tissues and granulations are seared out until the fibrous base is exposed." (Drueck) [1]

Both authors later admit that healing is slow and prolonged. I would expect it to be so with either form of treatment, since either case has not had removal of pathology.

With the great improvement in the general tuberculosis outlook, we will have increasing numbers of patients who have had tuberculosis and have become arrested cases. The development of the various forms of surgical treatment in reference to the primary lesions of the chest has saved the lives of many cases that otherwise would have been hopeless. This increasing group of people will swell somewhat the numbers who will be susceptible to anal fistula. Many of the arrested cases have developed a tuberculous sinus or fistula in later years, often so long afterwards that the history has to be obtained by direct questioning after you find a suspicious looking anal fistula. Often the response is that, "I had a light case many years ago and was completely cured. What does that have to do with my rectum?"

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Incidence

The incidence of tuberculous fistula has been a subject of discussion which has shown a wide divergence of opinion. It was not so many years ago that the belief that "fistula was tuberculous in the majority of cases" was prevalent [1]. Today we know that this is not so. The literature shows reports of an incidence of 1.7 per cent in Bacon's cases to 61 per cent reported by Melchior. Such variations cannot be accurate, regardless of the conditions or the methods involved. With this in mind we reviewed the subject of fistula at the Buffalo General Hospital. We felt that as a general hospital with the usual admissions we could obtain some fair estimate of the incidence of tuberculosis in fistula. Upon examination of the records over a stated period of time we found that there were 705 fistulas of the anus and rectum. Of this number we found 13 tuberculous cases, or an incidence of 1.8 per cent. This bears out the feeling, I believe, of most of the proctologists engaged in this work.

Naturally, it is true that in the incidence of tuberculous fistula in the average sanitarium there will be much higher figures. The average figures approach 78 per cent. Even in a tuberculosis hospital you will find the ordinary pyogenic fistula in many cases regardless of a primary focus in the chest.

The history and symptoms of a tuberculous fistula are quite in contrast to that of the pyogenic fistula. There is no question about the onset of a pyogenic fistula with the acute abscess so distressing to the patient. With the tuberculous fistula there is no acute onset but a mild and insidious one that is often only recognized when the drainage occurs. Many will say, "I never noticed a thing until I found my clothing soiled with a sticky substance." The discharge is also rather characteristic, being serous and sticky with a somewhat musty odor. The pyogenic fistula has the typical creamy thick discharge of the usual infections. The serous discharge of the tuberculous fistula is almost continuous with no evidence of healing over, so typical of pyogenic ab-

A detailed report of my personal experience with the work was presented in the third report of 425 fenestration operations in the March edition of the *Southern Medical Journal* Full credit is given to the *Journal* for the material from that report used in this article

The operation as it stands today has been proved to be a thoroughly sound and accepted surgical technic which has restored practical hearing in a large number of clinical otosclerosis cases which previously had never been helped by any means other than a hearing aid

The writer is cognizant of the claims made in the literature of the beneficial effects of histamine and vitamin injections, electric vibration, massage, and the various other local treatments A careful test of the hearing in a series of cases of clinical otosclerosis by the tuning forks, spoken voice, and the audiometer show identical results—a gradual but progressive loss of hearing both by bone and air conduction over a period of time . In the past these patients consulted specialist after specialist and were told by the conscientious ones that nothing could be done to check or prevent their loss of hearing in this type of deafness Removal of the tonsils and adenoids together with any nasal obstruction and inflation of the eustachian tubes in an effort to check the progress of the deafness were advised without any real benefit to the true otosclerosis cases

It has been proved to be practically free from danger other than the minimum risk incurred in any major surgical operation The laity by now is generally aware of the fact that the operation is not successful in every case and has accepted it as an opportunity to have the hearing successfully restored in a good percentage of the cases with the proper indications

Conclusions

1 The fenestration operation restores practical and lasting airborne hearing in a good percentage of the properly selected cases of clinical otosclerosis

2 The ideal indications for the operation are present during the conduction stage of the deafness

3 The chances of a successful operation decrease in direct proportion to the increase in the loss of nerve function

4 The operation is definitely contraindicated where there is a serious loss of nerve function or a complete nerve deafness

Discussion

Robert L Moorhead, M D, *Brooklyn*.—A few years ago considerable skepticism was expressed as to the efficacy of the fenestration operation Many statements were made insisting that the results would not be permanent and that in time the windows would close When the cases recovered with good hearing, it was demanded that these cases should be observed for two years, then three and finally five years before being called permanent results Now, many of us have cases that have retained good hearing for seven, eight, and ten years so that now the most doubtful otologist must admit that the fenestration operation is restoring permanent, good hearing in many cases

This brings up the question of which patients will be benefited by the operation In general, we may divide our patients into three classes One, those that are ideally suitable, second, those that are obviously unsuitable and are easily excluded, and there is a third class of patients coming in between these two that are responsible for many of our difficulties All cases of otosclerosis develop some degree of nerve degeneration in time, many in the early stages but fortunately most of them late It is the determination of the amount of nerve degeneration that is the difficult part of our problem The audiometer, the tuning forks, and the hearing tube all have their place in estimating the amount of cochlea reserve in a given case However, all of our tests are subjective and may vary with the intelligence and mental alertness of the patient What we really need is an objective test, in which the cooperation of the patient is not necessary

I would recommend that every otologist, even though he himself is not performing fenestration operations, should acquaint himself with the determination of bone conduction in his patients Numerous cases are referred and recommended for operation and then on careful testing are found to be unsuitable This often causes resentment in the patient toward the otologist who has referred him and he is at a loss to understand the divergent views and is very liable to consider that the referring otologist was either neglectful or ignorant of his condition Accuracy in testing of the bone conduction would obviate many of these embarassing situations.

I know a number of otologists that still recommend that their patients obtain a hearing aid rather than have the fenestration performed While it is true that good hearing may be obtained with an aid in most cases, I have yet to see a patient who would willingly wear one after a successful operation, and patients are universally disappointed if they must continue wearing aids for one reason or another Furthermore, while wearing an aid, the hearing continues to decline so that more and more amplification of the sound is necessary for comfort Eventually, the hearing aid is not satisfactory but by that time, the patient is unsuitable for operation and has lost his only chance for restoration of hearing

Results are more and more promising with the work The reactionary labyrinthitis has been greatly reduced in the last few years, so that one rarely sees a failure on account of it Whether or not the burnishing of the window by pure lead will further improve our results is as yet an undetermined point, but certainly the results to date are most encouraging The fenestration operation has proved itself, is here to stay, and will in time be regarded as the greatest advance in otology in our lifetime

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It is still common belief that it is dangerous to interfere with tuberculous fistula and that nothing can be done to cure it It is felt that if healing occurs it will be long and tedious and seldom complete. Many of the physicians treating tuberculosis still are of the opinion that it is useless to try surgery of any description In ordinary fistula surgery, how often we hear, "This fistula must be tuberculous because it heals so poorly " This is usually an excuse for inadequate surgery and bears out the general feeling that tuberculous fistula is a more or less hopeless condition In reference books such quotes as, "The operation should be done with the object of establishing free drainage rather than with the object of curing the fistula and there should be as little cutting as possible " (Mummery) [1] Also, "Excision of the fistula and immediate closure of the wound with sutures should not be attempted whenever tuberculosis is suspected "

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scess The usual pyogenic abscess fills and drains, opens and reopens, whereas the tuberculous never seals over

The external opening has an appearance also characteristic, there is a bluish cyanotic area of the skin with a glistening surface In the center of this area there may be a somewhat ragged opening, or there may be several fine pinpoint openings There is no evidence on palpation of a fibrous, raised, healing ring so typical of the pyogenic When this area is palpated, there is a countersunk or depressed area that often admits the tip of the finger Palpation for the fistula tract running into the anus will not reveal that fibrous tract so typical of the pyogenic fistula

The internal opening in the majority of cases arises in the crypts of Morgagni, as does the majority of all fistulas I cannot agree with the appearance of the internal opening as described in most textbooks The ordinary fistula has the crypt and large papilla as an indicator for the internal opening due to the inflammatory reactions This is not the case in the majority of tuberculous fistulas The crypts and papillae do not show the enlargement of the papilla like the pyogenic, and it is more difficult to determine which crypt or crypts that area involved until the fistula is opened

Many authors describe a large, ragged and palpable internal opening This has not been my experience except in the terminal stages or non-surgical cases I have found that the internal opening of the pyogenic fistula is much easier to determine than the tuberculous by proctoscopy

Methods to determine the tuberculous character of fistula have consisted of Ziehl-Neelsen stain, guinea-pig inoculation, and histopathologic examination

The first two methods have shown such an element of error that they have been discarded in most hospitals C L. Martin has shown by his work the impossibility of using these methods with any accuracy [2] We believe that the histopathologic examination is the most exact method for the determination of tuberculous fistulas. This determination is not always accurate since it depends on the experience of the pathologist and the willingness to do repeated or serial sections to find the Langhan's giant cells and the characteristic tubercle formation.

The differential histopathologic diagnosis between the tubercle, foreign body granuloma, lymphogranuloma, or gumma can be determined by the study of the giant and epithelioid cells, description and number of the lesions, tissue structure, and lymphocytes and plasma cells. The following table will show some of the most important points of differential diagnosis (Table 1)

Indications for surgery in these cases can be fairly well classified It is unnecessary to note that any tuberculosis case that is rapidly failing and shows anal breakdown is not a suitable case for surgery Some cases, however, that have not stabilized and have inadequate drainage should be relieved of the additional load by conservative measures Any case that shows stability in handling the primary lesion with improvement in the general condition can be operated The removal of the anal lesion will relieve further the infection load, and a boost is given the patient for his general health and recovery

We do not operate any anal or rectal lesion that has proved tuberculous lesions of the bowel However, after the bowel lesion has been taken care of, the fistula, if present, can be operated on

TABLE 1 —Differential Diagnosis

	Tubercle	Foreign Body Granuloma	Lymphogranuloma Venereum	Gumma
Giant cells	Common. Nuclei at periphery	Very numerous Nuclei all over cell plus foreign material within the cell	Unusual	Rare
Epithelioid cells	Very numerous Definitely arranged in tubercle formation	Mononuclear Macrophages not arranged in tubercular fashion	Large number of epheloid cells frequently palisading about necrotic tissue	Less numerous
Description of lesion	Caseation Absent blood vessels. Absent fibroblasts from necrotic area	Characterized by focal nodules containing also fibrous and granulation tissue. Macrophages fuse to form multinucleated giant cells	Looks like tubercle bacillus with addition of purulent inflammation with irregular or stellate shaped abscesses containing many polyps and densely packed mononuclear cells In rectum there are miliary infiltrations of the muscularis by lymphocytes and ulceration of the mucosa	Blood vessels sometimes present. Fibroblasts may be found in center
Tissue structure	Completely obliterated	Still visible	Still visible	Often still visible
Number of lesions	Rarely single	Usually single	Usually multiple	Frequently single
Lymphocytes and plasma cells	Less numerous than in gumma	Less numerous	Very numerous	Very numerous Perivascular

patients who have had lung surgery for arrest of lung lesions with good results are not contraindicated for surgery. Any arrested case or cases of medical or surgical treatment are acceptable for fistula surgery.

Procedure

In describing the operation we have done on tuberculous fistulas we have broken about all of the old principles that are quoted in the textbooks. Earlier in this paper I made two quotes from well-known men and now I am about to do just what was said not to do. I wish to describe the type of fistulectomy and also the use of sutures we have employed.

The fistulas have to be divided into three classifications, first, the true fistula with internal and external openings, these having their origin in the crypts of Morgagni. This invasion is believed to be secondary to ingestion. We have found that this type is the one that is most common. The second group is classified as sinus inasmuch as there is no internal opening into the anus or rectum. They arise from a breakdown of tuberclesand it is felt that this infection is lymphatic or hematogenous-borne. Fistulas that are secondary to bone or other tuberculous organs and are not usually susceptible to curative surgery constitute the third group. These are usually failing and terminal cases where life is questionable. The first and second groups are amenable to surgery if they fulfill the previous indications.

After the actual fistulous area has been prepared with adequate exposure of the anal region, the countersunk external opening is opened and the edges caught by Allis forceps for good vision. The appearance of the fistula is funnel-shaped with the large end of the funnel distal. As the tract approaches the anal ring, it becomes smaller and will lead to one or more crypts. This tract is carefully incised to the crypt to expose the full length of involvement and the amount of undermining of the skin. Often the area is quite extensive. With full exposure, dissection is carefully started distally, removing completely the involved area including the so-called protective fibrous layer. We are very careful to avoid any breaks of this layer for fear of secondary dissemination. It is necessary to incise the tract first for exposure of involvement, otherwise a dissection often cannot be done without breaking through where it is undermined. There is no tubular fibrosis so characteristic of the ordinary progenic fistula, so that small areas may be left with the consequence that the operation is unsuccessful.

In closure of the often large external defect we use a nonabsorbable suture, usually Kalderman, in a mattress type, passing first a wide suture through skin below the defect and not through any of the space. The suture is then passed through both edges of the skin and tied over pearl buttons. This type of suture will close all dead space in the cavity, and will last long enough for proper healing before removal. The closure is extended to the anal margin leaving the last portion for drainage of the anal canal. This last V-shaped area is lightly packed with oxycel gauze. The sutures are removed after five to seven days. The perirectal sinuses are widely dissected and closed in the same manner without drainage.

I wish to mention streptomycin and some of the findings that have been observed. First, I have given pre- and postoperative cases 1 Gm. per day as a precautionary measure and I feel that it does have some merit in this category. In following the reports of treatment at Perrysburg Hospital there seems to be a pattern in practically all cases under treatment, regardless of chest, kidney or other manifestation of tuberculosis. In the first thirteen weeks most cases showed a marked and miraculous improvement especially in the bacillary count. After this period the count rose rapidly and the cases seem to be even in worse condition than before treatment.

Sinus and fistula followed the same pattern with improvement under streptomycin with decrease of discharge and apparent healing of the lesions. When the general count reverted becoming streptomycin-fast the fistulas and sinuses also changed for the worse.

Recent work has shown that better results with less dosage may be accomplished in the future. However, so far streptomycin will have to serve as a boon to the surgeon for preparation for surgery and postoperative protection.

Summary and Conclusions

1. Tuberculous fistulas are not so prevalent as quoted in the literature.
2. We should dispel the idea that tuberculous fistula is not amenable to surgery.
3. We should use curative methods of surgery in tuberculous fistulas.
4. Streptomycin is not a cure-all but does have a function and a place in our armamentarium.

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References

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Discussion

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The external opening has an appearance also characteristic, there is a bluish cyanotic area of the skin with a glistening surface In the center of this area there may be a somewhat ragged opening, or there may be several fine pinpoint openings There is no evidence on palpation of a fibrous, raised, healing ring so typical of the pyogenic When this area is palpated, there is a countersunk or depressed area that often admits the tip of the finger Palpation for the fistula tract running into the anus will not reveal that fibrous tract so typical of the pyogenic fistula

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Many authors describe a large, ragged and palpable internal opening This has not been my experience except in the terminal stages or non-surgical cases I have found that the internal opening of the pyogenic fistula is much easier to determine than the tuberculous by proctoscopy

Methods to determine the tuberculous character of fistula have consisted of Ziehl-Neelsen stain, guinea-pig inoculation, and histopathologic examination

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Indications for surgery in these cases c fairly well classified It is unnecessary to that any tuberculosis case that is rapidly f and shows anal breakdown is not a suitabl for surgery Some cases, however, that hav stabilized and have inadequate drainage s be relieved of the additional load by conser measures Any case that shows stabili handling the primary lesion with improvem the general condition can be operated T moval of the anal lesion will relieve furthe infection load, and a boost is given the patie his general health and recovery

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TABLE 1 —Differential Diagnosis

	Tubercle	Foreign Body Granuloma	Lymphogranuloma Venereum	Gumma
Giant cells	Common. Nuclei at periphery	Very numerous. Nuclei all over cell plus foreign material within cell	Unusual	Rare
Epithelioid cells	Very numerous Definitely arranged in tubercle formation	Mononuclear Macrophages not arranged in tubercular fashion	Large number of epithelioid cells frequently palisading about necrotic tissue	Less numerous
Description of lesion	Caseation Absent blood vessels. Absent fibroblasts from necrotic area	Characterized by focal nodules containing also fibrous and granulation tissue. Macrophages fuse to form multinucleated giant cells	Looks like tubercle bacillus with addition of purulent inflammation with irregular or stellate shaped abscesses containing many polyps and densely packed mononuclear cells. In rectum there are miliary infiltrations of the muscularis by lymphocytes and ulceration of the mucosa	Blood vessels times present broblasts may found in center
Tissue structure	*Completely obliterated*	*Still visible*	*Still visible*	Often still visible
Number of lesions	Rarely single	Usually single	Usually multiple	Frequently single
Lymphocytes and plasma cells	Less numerous than in gumma	Less numerous	Very numerous	Very numerous vascular

Patients who have had lung surgery for arrest of lung lesions with good results are not contraindicated for surgery Any arrested case or cases of medical or surgical treatment are acceptable for fistula surgery

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After the actual fistulous area has been prepared with adequate exposure of the anal region, the countersunk external opening is opened and the edges caught by Allis forceps for good vision The appearance of the fistula is funnel-shaped with the large end of the funnel distal As the tract approaches the anal ring it becomes smaller and will lead to one or more crypts This tract is carefully incised to the crypt to expose the full length of involvement and the amount of undermining of the skin. Often the area is quite extensive. With full exposure, dissection is carefully started distally, removing completely the involved area including the so-called protective fibrous layer We are very careful to avoid any breaks of this layer for fear of secondary dissemination. It is necessary to incise the tract first for exposure of involvement otherwise a dissection often cannot be done without breaking through where it is undermined There is no tubular fibrosis so characteristic of the ordinary pyogenic fistula, so that small areas may be left with the consequence that the operation is unsuccessful

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I wish to mention streptomycin and some of the findings that have been observed First, I have given pre- and postoperative cases 1 Gm per day as a precautionary measure, and I feel that it does have some merit in this category In following the reports of treatment at Perrysburg Hospital, there seems to be a pattern in practically all cases under treatment, regardless of chest kidney, or other manifestation of tuberculosis In the first thirteen weeks most cases showed a marked and miraculous improvement, especially in the bacillary count After this period, the count rose rapidly, and the cases seem to be even in worse condition than before treatment

Sinus and fistula followed the same pattern, with improvement under streptomycin with decrease of discharge and apparent healing of the lesions When the general count reverted, becoming streptomycin-fast, the fistulas and sinuses also changed for the worse.

Recent work has shown that better results with less dosage may be accomplished in the future However, so far, streptomycin will have to serve as a boon to the surgeon for preparation for surgery and postoperative protection.

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Konig, Melchior, and Goz that the majority of all rectal fistulas are tuberculous in origin [1 2] I would add that primary tuberculosis of the anorectum is extremely rare and that it is usually secondary to pulmonary tuberculosis Both tuberculous and nontuberculous fistulas in ano are more commonly found in men than in women No satisfactory explanation of this has been advanced

Just as Doctor Knapp said, anorectal tuberculosis is insidious in its onset, and for that reason it is well to perform frequent, periodic anorectal examinations on tuberculous patients, for only in that way can these lesions be discovered early The earlier these anorectal lesions are diagnosed, the less extensive need be the surgery, and the sooner is the patient relieved of an additional tuberculous burden

There has been considerable controversy as to the method of arriving at a diagnosis of tuberculous fistula in ano and how to distinguish them from nontuberculous fistulas Anyone who has seen a substantial number of proved tuberculous fistulas with their characteristic changes knows that there is a distinct difference in their appearance as compared to the nontuberculous fistulas As a matter of fact, the clinical picture in tuberculous fistulas is so characteristic that on many occasions in office and hospital practice it has been possible to discover the presence of otherwise unsuspected pulmonary tuberculosis from the appearance of the anorectal lesion Roentgenograms of the lungs, sputum examinations, and gastric washings have confirmed the diagnosis in such cases That unsuspected pulmonary phthisis may be present in patients harboring tuberculous fistula in ano is shown by the fact that in our series of 42 cases of proved tuberculous fistulas there was a history of pulmonary involvement in nine cases that was not discovered until several weeks to seventeen years after the development of the anorectal lesion Inasmuch as the diagnosis of tuberculous fistulas can only be proved in the laboratory, either by examination of the scrapings taken from the edematous granulations which line the tracts or by examination of the removed fistula, the importance of as accurate a preoperative diagnosis as possible is self-evident In my work, if I suspect that a fistula in ano is tuberculous, I treat it as if it were tuberculous Multiple serial sections are examined in the laboratory, and the final diagnosis is made by the pathologist Here again, I am in accord with Doctor Knapp, for we too depend on histopathologic examinations for the final diagnosis.

I shall not discuss the use of streptomycin in tuberculous fistulas because I have not employed it for that condition We know that there are disadvantages and dangers which accompany its use, and minimal as these may be, I have chosen to leave its use to the tuberculosis specialist I have used it in preparation of the bowel for colonic surgery, but we are not discussing that field here

One of the most significant findings in the study of the 42 patients with proved tuberculous fistula in ano, which I mentioned, was that the postoperative course in tuberculous patients in the quiescent phase with negative sputa and gastric washings was short and favorable, as in nontuberculous patients In patients with positive sputa, however, healing took about twice as long These findings convinced me that the optimal time for the institution of operative measures is when the patient's sputum is negative, or when the pulmonary disease is in a quiescent phase with the number and concentration of tubercle bacilli greatly diminished In considering these findings one cannot help but feel that the swallowing of positive sputum is an important factor not only in the production of tuberculous fistula in ano but also in the postoperative convalescence

So far as treatment is concerned, I cannot go along with Doctor Knapp In surgery about the anorectal region, I have found that the closure or partial closure of wounds is attended by pain, infection, prolonged convalescence, and failure of the operation to accomplish what the surgeon intended. I perform the same type of operation on tuberculous fistulas as I do on the ordinary kind, excepting that in performing fistulectomy in the tuberculous variety, I include more of the surrounding healthy tissue and disturb the local disease as little as possible The wounds are not sutured in any way but are left wide open to assure adequate drainage and proper healing I agree wholeheartedly with the speaker, however, that tuberculous fistulas are amenable to surgery

[1] Melchior E Berl klin Wchnschr 54 621 (June 25) 1917
[2] Goz E Beitr z klin Chir 99 268 (May) 1916

A M.A FILM GETS CERTIFICATE OF MERIT

At a recent convention of the Biological Photographic Association held in Philadelphia, the A M A. awarded a certificate of merit The film was first shown at the A M A centennial session in Atlantic City in 1947 by the A M A Committee on Medical

Case Reports

PREGNANCY COMPLICATING OSTEOGENIC TUMOR OF THE SACRUM*

PHILIP B WAHRSINGER, M D , F A C S , and J IRVING KUSHNER, M D , F A C S ,
New York City

(*From the Department of Obstetrics Bronx Hospital*)

A JEWISH housewife, S T , was first seen in the prenatal clinic on November 9, 1944 Her menstrual cycles, which began at the age of twelve, were of the thirty-day type with a four-day flow There was a history of amenorrhea since July 24, 1944 Her expected date of delivery, therefore, was April 30, 1945

Her past history revealed an appendectomy in 1930 with an uneventful convalescence In 1937 she was seen at the Hospital for Joint Diseases because of vague pelvic pains. A tumor of the sacrum was found The diagnosis of a benign osteogenic tumor or an ossifying giant cell tumor was made by biopsy She was treated for this by means of a radium pack on June 20, 1937, and received 10,575 milligram-hours Two months later, she received another 14,500 milligram-hours.

Between October, 1937, and December, 1937, at Sydenham Hospital, she received twelve additional x-ray treatments to the sacrum, a total of 2,400 roentgen units Following this, she had a period of amenorrhea for one year

On February 11, 1943, at Montefiore Hospital, an x ray examination showed a large mass 8 cm. in diameter, arising from the lower end of the sacrum. Upon review of the slide taken at the Hospital for Joint Diseases in 1937, the diagnosis was now made of ossifying fibroma At this hospital she was checked at regular intervals without any changes in the clinical picture being found She received no further therapy, but on October 14, 1944, because of amenorrhea since July, an Aschheim-Zondek test was made and found to be positive She was then transferred to our prenatal clinic

On admission to the Bronx Hospital no abnormalities were found except for a bony tumor felt on pelvic examination about 7 5 cm. from the outlet, apparently arising from the sacrum and separate from the promontory

A pelvic x-ray revealed a normal inlet and midpelvis, a slightly contracted outlet, and a large calcified mass in the region of the sacrum and coccyx, measuring 7 5 by 7 5 cm. This mass protruded into the pelvic canal. The patient was considered a candidate for a cesarean section, since it was felt that this tumor would make a vaginal delivery impossible

After a normal prenatal course, on April 19, 1945, eleven days before her expected due date, a rectal examination revealed a vertex presentation with the head well engaged in the left occipito-anterior position. It was now felt that she would deliver vaginally On May 18, 1945, after a ten-hour labor, she was delivered by low forceps of a living female child, weighing 7 pounds 12 ounces. The baby had a depressed fracture of the right frontal bone, apparently where the tumor mass had pressed on the head during the passage through the birth canal. This cleared up spontaneously, and mother and baby left the hospital in good condition on the tenth postpartum day

A two-year follow-up of the baby showed no abnormal findings.

The patient was next seen again in the prenatal clinic on March 27, 1947 Her last menstrual period was December 10, 1946, and her expected date of confinement was September 17, 1947 She was referred to the tumor service for study A large osteomatous growth, roughly 7 by 7 cm. in size, involving the anterior surface of the lower end of the coccyx and sacrum, was found This projected about 8 cm from the anterior surface of the coccyx and sacrum An x-ray film showed no change from the previous condition It was the opinion of the tumor service that no surgery was indicated for the sacral lesion and no abortion was justifiable However, it was felt that the patient should have an elective cesarean section and fallopian tube ligation in view of the previous history of the infant's skull fracture.

The obstetric staff thought, however, that she should be allowed to deliver vaginally After a normal prenatal course the patient was admitted to the hospital in active labor on September 11 1947, with the cervix fully dilated. A low forceps delivery was was done because of sudden fetal distress and a living 7-pound, 8-ounce boy was delivered with a depressed fracture of the right frontal bone in the same area of the skull as had been found in the first child. Except for this, the baby showed no abnormalities, and a neurosurgical consultation advised against operation Both mother and baby were discharged on the ninth postpartum day in good condition

The baby was seen in the follow-up clinic on December 11, 1947 No abnormalities were present The depression of the skull had cleared up

The depression having occurred in the frontal region in both babies, only subsequent observation will determine if any permanent damage had been caused in the so-called silent areas of the brain.

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* Presented at a meeting of the New York Academy of Medicine Section on Obstetrics and Gynecology March 16 1948

MICROPHTHALMIA ASSOCIATED WITH A VARIETY OF CONGENITAL ANOMALIES IN THREE SIBLINGS*

BERNARD KRONENBERG, M D , New York City

(*From the Gouverneur Hospital*)

THE syndrome presented consists of a basic microphthalmia which is associated with a number of other congenital lesions in three siblings The family consists of eight children with normal parents who were first cousins Five of the children were normal. Three of these five have a total of six children all of whom are normal Of the original eight, three show this basic syndrome, microphthalmia

Case Reports

Case 1 —Carlos N , age nineteen, has microphthalmia, coloboma of the iris, marked nystagmus, and eyes fixed in convergence of both eyes At the age of twelve days, he developed an external ocular infection which led to the formation of a corneal opacity of the right eye involving almost the entire cornea, leaving only a lunar-shaped sector up and out He shows a coloboma of the right iris which is not typical but is located at five o'clock. This eye shows a myopia of −25 00 The left eye, as a result of this infection, has a dense leukoma adherens, posterior synechiae, and absorption of most of the lens substance, leaving only a calcified area below The vision of the right eye is 4/400 and cannot be corrected The left eye has only hand movements The fundus of the right eye could not be seen very clearly because of the marked nystagmus and the corneal opacity

Case 2 —Carmen N , age sixteen, has microphthalmia with ectropian uvea of both eyes and ectasia of the pupils. She also shows coloboma of the optic nerve and macular area and marked nystagmus, and the eyes are fixed in convergence The vision of the right eye is 6/400, and the left has fingers at one foot. Fundus examination of the right eye, which was the only one possible, shows myopia of −24.00 The right eye also showed remnants of a hyaloid artery and a posterior lens opacity The left eye, in addition to the abovementioned anomalies, has a subluxation of the lens with coronal lens opacities and a persistent pupillary membrane

Case 3 —Celia N , age fifteen, has microphthalmia but not so marked as that of her brother and sister She also shows a coloboma of the iris, optic nerve, and macula She, too, has a marked nystagmus, and her eyes are fixed in convergence The vision is 6/400 in each eye, and she has a myopia of about −24 00 She is the least affected member of the siblings

The patients presented here were the children of first cousins who must have carried the basic anomaly as a recessive characteristic The fact that it has appeared in two girls and one boy also substantiates that it is not sex-linked These patients fall into the second and third groups of the Van Duyse classification Both the mother and father could not recall any other relatives with similar eye defects The consanguinity and appearance of three members in the same family, of course, eliminates the possibility of any intrauterine inflammatory processes causing these anomalies

It seems to me that only one defective gene for a basic anomaly was transmitted by each parent. Certainly, it would be difficult to assume the transmission of many defective genes for each of the various anomalies seen in this family The complete normality of the other children also eliminates the possibility of more than one defective gene. I must assume that the basic anomaly here was a defect in the ectodermal anlage delaying the closure of the fetal cleft which caused the microphthalmia The appearance of colobomata of the iris, typical and atypical, coloboma of the optic nerve, ectasia of the pupil, and luxation of the lens must all be secondary to the basic anomaly and were determined during pregnancy by incidental factors The high myopia can only be explained on the basis of a spherical change in the lens The nystagmus is explained by the presence of colobomas in the macular area

Summary

Three siblings with microphthalmia and a variety of other congenital lesions are presented Their parents are first cousins and have a total of eight children Of the five normal children, three have a total of six children, all of whom are normal.

The patients have an ectodermal defect Their anomalies are recessive in character Most probably, one defective gene was transmitted by each parent for the basic anomaly The appearance of all the other anomalies were secondary and were determined during pregnancy by incidental factors

* Presented at the New York Society for Clinical Ophthalmology January 5 1948

AUXILIARY NURSING SERVICE PLEDGED

"The nursing profession is responsible for providing safe nursing service to the public The national professional nursing organizations have accepted this responsibility ever since their founding

"The national nursing organizations now recognize the essential nature of services needed by the sick from practical nurses and auxiliary workers They are ready to assume full responsibility for leadership and guidance "—*Practical Nurses and Auxiliary Workers for the Care of the Sick, 1947*

To which we say, hurrah!—*Editors*

CARCINOMA OF THE PROSTATE*

A STRACHSTEIN, M D , New York City

(From the Department of Urology, Beth David Hospital)

THE statistics gathered by Young in 1936 reveal that one fifth of the male patients who seek relief of obstruction of the vesical neck have carcinoma of the prostate gland [1] The statistics of Rich and Moore have been frequently and widely quoted in urologic literature Essentially, they are as follows In 292 autopsies on men over fifty years of age at the Johns Hopkins Hospital, Rich found carcinoma of the prostate gland in 41 cases or 14 per cent, in 68 per cent of these cases the tumor had not been detected because it was too small to produce symptoms [2] In 1935, Moore found cancer of the prostate in 21 per cent of 252 patients between forty-one and ninety years of age [3] Although until a few years ago carcinoma of the prostate had always been considered a trying and discouraging malady, the newer androgenic treatment recommended by Huggins and his associates in 1941 holds out a ray of hope for these unfortunates [4,5]

Case Report

D P a white man of sixty-five, was referred to me by his physician early in 1944 for the treatment of a hydrocele The hydrocele was removed, and the patient made an uneventful recovery On January 5, 1946, the patient was referred again, this time complaining of hematuria, frequency, and dysuria.

Rectal examination revealed a hard nodular prostate with a stony, hard consistency in some areas Cystoscopic examination was impossible because of the density of the prostatic urethra. No x-ray films were taken at that time, but the blood showed a definite acid phosphatase elevation A diagnosis of carcinoma of the prostate was made In view of the advanced stage of the growth we did not advise surgical removal There was also no indication for transurethral resection.

The patient through my advice was treated by his family physician until November 25, 1947 with diethylstilbestrol injections, supplemented orally by tablets of the same drug The urinary symptoms had completely abated He gained weight and was coming along very satisfactorily until the latter part of November, 1947 He then began to complain of terrific headaches, abdominal pain, and a chain of neurotic symptoms Examination at that time (November 25, 1947) showed the prostate to be perfectly soft and not enlarged, consistency was normal with disappearance of the previously found nodular masses, and there was no dysuria.

Radiologic examination, however, revealed the presence of metastases in the pelvic bones and in the lumbar spine Although no x-ray films were taken when we first detected the malignancy of the prostate, we had reason to suspect that they were present then and were checked by the estrogenic therapy There was no residual urine found, but the acid phosphatase was still elevated

Castration was now advised and was performed on November 26, 1947 It is remarkable to note that his headaches had completely disappeared within two days and now, to quote his own words, "feels fine and never better" At the present time six months after the orchiectomy he is free from symptoms He is still taking the diethylstilbestrol orally The rationale for continuing the estrogenic therapy is the following We know that the adrenals are secreting a certain amount of androgens even after orchiectomy, hence neutralization is produced by the continuance of the stilbestrol.

It is difficult to explain the severe headaches in this case, and it is equally difficult to explain the relief obtained after orchiectomy Metastases in the skull from carcinoma of the prostate are rarely, if ever, found We are justified in concluding that this mode of treatment may prolong the life of the patient even longer than a radical prostatectomy if we are to judge by results following prostatectomy for carcinoma of the gland

133 EAST 58TH STREET

References

1 Young H H. S Clin North America 16 1273 (1936)
2 Rich R A J Urol. 33 215 (1935)
3 Moore, Robert A. *ibid.* 33 224 (1935)
4 Huggins C and Hodges C U Cancer Research I 293 (1941)
5 *Idem* J Urol. 46 997 (1941)

* Presented at a meeting of the New York Physicians Association, May 13 1948.

PHYSICIANS PER POPULATION IN U S

In a recent compilation by *Medical Economics* (November, 1948), the statement is made that in the United States there is one private physician for each 1,082 people The ratio in New York State is claimed to be 1 640

Most doctors per population are found in the District of Columbia, where an active, private physician is available for each 582 people Fewest such medical men in relation to population are found in Mississippi, which has one per 2,420 people Professional competition is also at a peak in New York, Massachusetts, Colorado, Connecticut, Vermont, New Jersey, Maryland, Illinois, and California. Each of these areas has fewer than 1,000 people for every active, private physician

Besides Mississippi, medicine is least competitive in Alabama, Arkansas, New Mexico, and South Carolina

Special Article

ARE PHYSICIANS PARTICULARLY SUSPECT OF TAX FRAUD?

CURT GRUNEBERG, T D , Kansas City, Missouri

Department of Economics, University of Kansas City

APPROXIMATELY one and a half years ago, an article appeared in the February, 1947, issue of *Fortune* magazine This article, entitled "The Ingenious Taxpayer," contained the following statement "Hippocrates would be surprised to learn that there have been more doctors convicted of tax evasion than any other group except professional gamblers" Apparently, no one has paid any attention to this remark about the tax honesty of physicians Nevertheless, it should be of special interest to every physician to discuss *sine ira et studio* whether and to what extent there may be any truth in this statement

Tax fraud has rapidly become a major problem to the tax authorities and a serious threat to our national economy Additional tax assessments between 1930 and 1941 were—with few exceptions—between three and four hundred thousand dollars Since 1942, the assessments have increased in an alarming degree

FISCAL YEAR	ADDITIONAL TAX ASSESSED
1942	$ 438 000 000
1943	566 000 000
1944	731 000 000
1945	922 000 000
1946	1 280 000 000
1947	1 929 000 000

According to a recent statement by A L M Wiggins, Undersecretary of the Treasury, the Federal government loses about one billion dollars a year through fraudulent tax evasion The loss through nonfraudulent tax losses is estimated at about four billion dollars a year and the loss in accumulated tax evasions at least five billion In order to minimize this loss, the Treasury Department attempted to get a substantial increase in personnel, a move which was defeated by Congress

How does the Treasury Department make the best of an unsatisfactory number of personnel, especially of the small Internal Revenue Bureau's intelligence unit? It is well known that regular audits or at least repeated audits refer to taxpayers in the upper tax brackets, whereas taxpayers in the lower brackets, especially as far as they receive most of their income from employment, get more or less a routine check only However, a second, rather efficient check method is not well known, namely, the selection of taxpayers for tax audits on the basis of their profession or occupation. It may be a very unpleasant surprise to many physicians, but it is a fact that doctors' tax returns are given particular attention by the Treasury Department

What is the reason for this attitude on the part of the Treasury Department, and does it justify the statement quoted earlier? Actually, the comment on physicians and tax evasions is wrong with respect to two factual statements (1) There are no statistics on tax convictions of any professional or occupational group This in itself shows that the statement cannot be backed up by facts (2) In addition, "professional gamblers" are, of course, neither an occupational nor a professional group of taxpayers The Treasury Department, while it has made surveys and investigations of specific occupational and professional groups of taxpayers, has no classification of "professional gamblers" Moreover, since gambling—under local law—is frequently liable to punishment, the comparison of physicians with professional gamblers as to tax honesty does not indicate any actual fact, but only the personal, not very flattering attitude toward physicians of the author of the article in question.

Nevertheless, there seems to be something wrong with tax returns of doctors One small analysis of cases concerning the frequency of tax evasions in any occupation, prepared by the Treasury Department, would indicate that doctors were the second largest category of persons involved in the small group of cases under consideration Incidentally, the first place in this survey as to frequency of tax evasion was occupied not by professional gamblers but by persons in the liquor industry

It is true that the Treasury Department has selected nine categories of occupations or professions whose tax returns are given particular attention for tax audit purposes Physicians are one of these nine groups, apparently for the following reasons (1) lack of detailed financial records which, according to the experience of the Treasury Department, is customary in the medical profession, and (2) a large portion of medical fees is paid in cash, and control of cash is always difficult

Yet, this particular attention by the Treasury Department to doctors' tax returns may change for the better More and more patients are paying their medical bills by check rather than in cash, more and more patients who still pay in cash ask their doctor for a receipt in order to have proof for tax deduction under Section 23(v) of the Internal Revenue Code, and more and more doctors are being convinced of the necessity for satisfactory records of their income

Although it is obviously true that a few doctors are found guilty of tax evasion from time to time, it is not fair to generalize in a way which reflects on the integrity of the profession as a whole The Treasury Department has developed a method of tax control and supervision which requires a verification of tax returns of a relatively large number of members of the medical profession But this is certainly not an indication of any critical attitude of the Treasury Department toward the medical profession as such, or toward its individual members

CORRESPONDENCE

THE TREATMENT OF PNEUMONIA

To the Editor

I am referring to the article in the JOURNAL of August 1, 1948, p 1735, Clinicopathologic Conferences on Bacterial and Virus Pneumonias, and shall appreciate it if you will permit me to make a few remarks and ask a few questions in connection with the two cases and the way they were managed

It appears that Case 1 was an elderly man who had had a coronary occlusion two years ago, was in chronic heart failure and contracted a pneumonia He had taken digitalis "sporadically" and had stopped it three days before the onset of the present acute illness It is difficult to judge how much digitalis they have taken, but from experience I can say that such people need seven to ten tablets of digitoxin, 0 1 mg, to get them out of heart failure, administered within the first twenty-four to thirty-six hours and maintained on 0 1 or 0 2 mg a day This man received 0 2 mg a day and would have required ten to twelve days to become digitalized He did not live long enough. My question is Is it accepted practice to underdigitalize a man in heart failure if he contracts a pneumonia?

In Case 2 we see an elderly man succumb to pneumonia on the eighth day after his temperature has returned to normal The autopsy showed 2,000 cc fluid in *each* pleural cavity and some more fluid in adhesions In other words, the chest contained over 4 L. of fluid. My question is Are 4 or more L. of pleural fluid compatible with life? Is it common practice not to tap a chest filled with fluid to such an extent?

I realize that the chance of both patients was small, but for my own and other general practitioners' information I would like to hear your comment on my questions and shall appreciate anything you wish to say authoritatively

ERNEST LEIBHOLZ, M D
54-55 69th Lane
Maspeth, New York
August 12, 1948

To the Editor

In reply to Dr Liebholz I should like to point out that the major problem in Case 1 was the pneumonia and not the heart failure, which was only moderate in degree at the time of admission Since the amount of digitalis that the patient had taken was not known, it seemed wiser to avoid rapid digitalization and to give full doses of mercuhydrin I quite agree that heart failure complicating pneumonia should not be underdigitalized.

In regard to Case 2, there was no clinical or radiographic evidence of large pleural effusions, which were very likely preterminal developments Large effusions should, of course, be aspirated, although the presence of 4,000 cc of pleural fluid is not incompatible with life. The hazards of hydrothorax vary considerably and depend on a number of factors which include the size of the effusion, the location, the degree of encapsulation and fixation, the rate of accumulation, and the underlying disease.

I hope that these remarks will be of aid in the interpretation of the two case presentations

EMANUEL APPELBAUM, M.D
910 Park Avenue
New York City
August 25, 1948

DIABETES AND TUBERCULOSIS

To the Editor

The NEW YORK STATE JOURNAL OF MEDICINE of July 15, 1948, includes an article on the management of diabetes complicated by tuberculosis

On the basis of one case and some literature dated 1939, the conclusion is drawn that protamine zinc insulin has a toxic effect and that it is not valuable in the treatment not only of diabetes but especially of diabetes complicated by tuberculosis

In the first place, protamine zinc insulin has now been used in the treatment of diabetes for more than ten years, and there is scarcely any opinion that it is the cause of constant toxic effects

In the second place, in 1941 Mosenthal and Mark in the *J.A.M.A.* of June 14, 1941, page 2652, reported the treatment of 278 cases of diabetes complicated by tuberculosis as treated at Sea View Hospital. The cases were about evenly divided between those treated with regular insulin and with protamine zinc insulin, in all other respects the therapy was the same in both groups It was found that the control of diabetes with the protamine zinc insulin was infinitely more effective than with the regular insulin

Consequently, I would conclude that the statements made in the article were based on insufficient evidence and that we have no proof that protamine zinc insulin is a universally toxic medication and that protamine zinc insulin is less efficient than crystalline zinc or regular insulin in the treatment of diabetes complicated by tuberculosis. In fact, it seems that protamine zinc insulin is far and away the more efficacious in the control of tuberculosis in the presence of diabetes.

HERMAN O MOSENTHAL, M.D
889 Lexington Avenue
New York 21, New York
August 18, 1948

To the Editor

Reply is made to the foregoing letter from Dr Herman O Mosenthal who comments on our paper "The Management of Diabetes Complicated by Tuberculosis," which appeared in the NEW YORK STATE JOURNAL OF MEDICINE 48 1613 (July 15) 1948

It was not unexpected at this time to have clinicians such as Dr Mosenthal and others of his standing draw conclusions different from those expressed in *our summary* However, the recent literature is, nevertheless, increasing with reports regarding the toxic effect of protamine These damaging effects may have left their marks on the cardiovascular, peripheral vascular, pulmonary, ocular, and genitourinary systems Over a long period of clinical observation of the exclusive use of protamine zinc insulin, I have found the following blood chemistry changes

1 Increased blood cholesterol.
2 Increased blood uric acid
3 Increased blood creatinine
4. Some disturbance in the albumin-globulin ratio
5 Depression of the renal threshold for glucose

I have also discussed a syndrome, "protamine edema," noted clinically in a number of cases treated with protamine zinc insulin exclusively All of the above findings seem reversible when regular insulins are substituted

Reference may also be made to the work of Wildstrom and Willander [*Acta med Scandinav* 88 434 (1936)] who found that heparin prevented fibrinous adhesions in pleurisy, while Chagraff and Olson [*J Biol Chem* 122 153 (1937)] have shown that protamine (salmine) annuls the action of heparin both in vitro and vivo

Because of all these observations and studies, it is not unreasonable to presume that many thrombotic phenomena in diabetics have been due, at least in part, to the inhibiting influence of this foreign protein substance (protamine) on circulatory dynamics, especially since protamine has been shown to counteract the action of heparin The view of Shelley *et al* [*Proc Soc Exper Biol & Med* 50 300 (1942)] that protamine tends to favor vascular embolic incidents may be explained on the basis of this disturbance in circulatory dynamics

Dr Mosenthal admits that there has been considerable clinical investigation in the treatment of tuberculosis complicated by diabetes, and we agree that his comparisons in 1941 were valid then Since then, however, it has been generally accepted that in acute and febrile diseases preference should be given the quick-acting insulins Since tuberculosis in both acute and chronic forms is an active disease entity, it is my opinion that the same rules should hold to the use of insulins

It is possible that the trend to the use of mixtures of insulins has indirectly been a partial check on the unfavorable effects of protamine zinc insulin. The increasing demand for crystalline zinc insulin is an indication that from the clinical viewpoint the profession is not entirely satisfied with the results of protamine zinc insulin Our observations seem to add light to the abovementioned reasons

Whereas, clinical observations are usually *a posteriori* deductions, their validity is quite often confirmed or rationalized by a search in the literature to explain one's observations For example, Reiner *et al* [*Proc Soc Exper Biol & Med* 50 70 (1942)] report that protamine inhibits tissue respiration. This is a mechanism by which some of the clinically observed, adverse effects of protamine zinc insulin may be explained.

Far-reaching changes of clinical and therapeutic import may develop by observations of one or several cases Dr Mosenthal and others are certainly in the position to aid in clarifying the issue by observation and interpretation.

MORRIS ANT, M.D
61 Eastern Parkway
Brooklyn 17, New York
October 30, 1948

FEE SCHEDULE FOR HOME TOWN MEDICAL CARE PROGRAM*

To the Editor

It has come to my attention that considerable misunderstanding has developed throughout the medical profession concerning the fees for medical services to be paid private physicians participating in the various home town medical care plans for veterans It has been contended that the Veterans Administration has arbitrarily established a fee schedule of maximum amounts which may be paid for any given service and that this is, in effect, a national fee schedule It has also been claimed that the various state medical societies and other interested groups were not consulted when this fee schedule was adopted.

In order to avoid misunderstanding on this subject, I am authorized to state that the Veterans Administration Chief Medical Director, Dr Paul B Magnuson, neither desires nor intends to establish a national schedule of fees, nor did his predecessor, Dr Paul R. Hawley

The fee schedules originally proposed by the various state medical societies when the Home Town Medical Care Plan was inaugurated varied widely in format, terminology, and fees for similar or identical services It seemed advisable, therefore, to establish a uniform fee schedule format and tentative fees to be used as a guide by state medical societies in submitting proposals for the furnishing of medical care to veterans

The uniform fee schedule format was drawn up by the professional groups of national consultants to the chief medical director These groups, composed of eminent physicians from all parts of the country, represent all the specialties in medicine and surgery Tentative fees were included in the format after a careful analysis of prepaid *medical care plan, and* workman's compensation and insurance fee schedules and also of the fee schedules in effect in the various states having agreements with the Veterans Administration

As was expected, the fees reviewed varied considerably The professional group of national con-

* This letter is published at the request of Dr Bauckus president, Veterans Medical Service Plan —*Editor*

sultants made every effort to arrive at just and reasonable fees for inclusion in the uniform provisional fee schedule This schedule is intended to serve as a guide only and to facilitate and expedite the preparation of agreements between state medical societies and the Veterans Administration.

The schedule contains elastic fees for certain operations and services which evoke more than average contention Maximum and minimum fees considered equitable are listed for these items, and they are marked "AA," indicating that the fee is to be determined by arbitration and agreement between the medical society and the Veterans Administration.

May I repeat that the Veterans Administration fee schedule format is in no sense an arbitrary or national fee schedule Nor is it a fixed schedule, for it is subject to periodic review and modification

With your approval, I would appreciate very much your arranging to publish this as an open letter in the NEW YORK STATE JOURNAL OF MEDICINE I should like this to reach all the physicians in New York State, and I know of no better way to do it than through the JOURNAL.

ETHAN FLAGG BUTLER, M D
Branch Medical Director

Veterans Administration
Branch Office No 2
346 Broadway
New York 13, New York

October 25, 1948

To the Editor

Dr Butler's letter of October 25, relating to fee schedules, is at hand, and I am pleased with the tenor of its content

As you know, the fee schedule which is in effect in New York State is the result of study and agreement between the Veterans Administration and the Veterans Medical Service Plan of New York, Inc It has been changed and is subject to change from time to time, by mutual agreement I regard it as quite satisfactory, and I do not think it has caused much trouble in this past two years of our work For the Plan, we have always been in favor of discussing any fee schedule items that did not seem agreeable to the Veterans Administration

The uniform fee schedule format did not supercede our New York State fee schedule I agree that such a format is necessary for clear consideration of the many items that need to be discussed before contracts are made between state medical societies and the Veterans Administration It is my understanding that after such a study the state medical society, or its representatives, and the Veterans Administration come to an agreement on their own fee schedule for that state

HERBERT H BAUCKUS, M D
President

925 Delaware Avenue
Buffalo 9, New York

October 26, 1948

WHAT'S IN A NAME?

To the Editor

In the August issue of the NEW YORK STATE JOURNAL OF MEDICINE I noted your article "There Is a Need" (page 1683)

I have a suggestion to make Why not call the male nurse "Nurser" and the female nurse 'Nurse"

This change might make a bisexual profession out of the now unisexual profession.

JOHANNES BEHRENDT

93 Monroe Avenue
Rochester 7, New York
October 22, 1948

MARY AND HER LITTLE COLD

Mary had a little cold,
But wouldn't stay at home
And everywhere that Mary went
The cold was sure to roam.
It wandered into Molly's eyes
And filled them full of tears—
It jumped from there to Bobby's nose,
And thence to Jimmie's ears
It painted Anna's throat bright red,
And swelled poor Jennie's head
The moral of this little tale
Is very quickly said—
She could have saved a lot of pain
With just one day in bed —*Distaff July, 1948*

NECROLOGY

Martin Laurence Bodkin, M D, seventy-nine, died on December 1 at his home in Brooklyn Dr Bodkin was graduated from the College of Physicians and Surgeons, Columbia University, in 1894 and started practice in Brooklyn A former chairman of the medical board of St Mary's Hospital, Brooklyn, he had also been consulting proctologist at St Catherine's, Caledonian, Midwood, Zion, Williamsburgh, and Bushwick Hospitals in Brooklyn He was a fellow of the American College of Surgeons and a member of the Brooklyn Surgical Society and the New York State and Kings County Medical Societies

Edward John Davin, M D, of New York City, died December 5 at his home He was fifty-nine Dr Davin received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1912, and served overseas as a captain in the Army Medical Corps during World War I Formerly director of obstetrics and gynecology at Lincoln Hospital, the Bronx, and director of obstetrics at St Clare's Hospital, Manhattan, he was a fellow of the American College of Surgeons, a diplomate of the American Board of Obstetrics and Gynecology, and a member of the American Medical Association and the New York State and County Medical Societies

Annie M Hull, M D, seventy, died at her home in Glens Falls on November 22 She was a graduate of the New York Medical College and Hospital for Women in 1903 and had practiced medicine in Glens Falls for almost fifty years She had also served as health officer for the town of Queensbury Dr Hull was a member of the New York State Board of Medical Examiners and the New York State and Warren County Medical Societies

Arthur Many Johnson, M D, died November 30 at Strong Memorial Hospital, Rochester, at the age of seventy-four He was graduated from Albany Medical College in 1895 and interned at Ellis Hospital, Schenectady, before starting private practice in Rochester in 1897 Dr Johnson was associated with the Health Bureau from 1905 until his retirement in 1945, and served in the Army Medical Corps during World War I

In 1943 he received the Albert David Kaiser medal of the Rochester Academy of Medicine in recognition of his services as a health officer and coordinator of medical activities for the national defense program He was a member of the Rochester Academy of Medicine and the New York State and Monroe County Medical Societies

Harry Judson Lipes, M.D., seventy-seven, died November 25 at the Albany Hospital after a long illness He was graduated from Albany Medical College in 1897 and served in France during World War I with an artillery unit, receiving wounds which prevented him from performing surgical operations although he continued his general practice In 1916 he served with the Second New York Infantry on the Mexican border as a major in the hospital corps He received the Silver Star from General Pershing for gallantry in action

Active in veterans' organizations, Dr Lipes was New York State surgeon general of the Disabled American Veterans A frequent lecturer on obstetrics at Albany Medical College, he was a member of the New York State and Albany County Medical Societies

Louis De Lattre Pulsifer, M D, of Mexico, died suddenly on October 26 from a heart attack He was seventy-six A graduate of Syracuse University Medical School in 1900, Dr Pulsifer interned at Bellevue Hospital, New York City, and practiced for two years in Deruyter before opening his office in Mexico in 1904, where he practiced for forty-four years

Active in the community, Dr Pulsifer had served as mayor of the village, town supervisor, a member of the board of education, school physician, health officer for the village and town of Mexico and the town of Palermo, and medical examiner of the draft board at Pulaski during World War I He was a member of the New York State and Oswego County Medical Societies

George Herbert Ramsey, M.D, fifty-seven, died from tuberculosis at Saranac Lake on November 30 Nationally known in public health circles, he was graduated from the College of Physicians and Surgeons, Columbia University, in 1917, and received the degree of doctor of public health from Johns Hopkins University in 1926 During World War I he served as an Army medical officer with Base Hospital 15 in Chaumont, France

Formerly deputy commissioner in the Michigan Health Department, he taught epidemiology at the University of Michigan and at Johns Hopkins and in 1933 was appointed director of the division of communicable diseases of the New York State Department of Health An advocate of physical examinations as a preliminary to marriage in New York, he had general supervision of the program for the prevention of venereal disease in this State

In 1938 Dr Ramsey was appointed health commissioner of Westchester County During his term there he developed the county's syphilis control program, campaigned for adequate sewage disposal for communities along the Hudson River so that swimming would be safe from danger of typhoid fever, and saw the county make gains in the control of such diseases as tuberculosis, typhoid, and pneumonia He was president of the American Epidemiology Society

Hans Richard Sauer, M.D, forty-five, died on December 1 after a heart attack while performing an operation at the Roswell Park Institute for Malignant Diseases in Buffalo A native of Vienna, he received his medical degree from the University of Berlin in 1928 and came to this country in 1938, becoming a citizen in 1943 He was a diplomate of the American Board of Urology and a member of the Buffalo Academy of Medicine and the New York State and Erie County Medical Societies

Benjamin James Slater, M.D, of Rochester, died on December 4 at the age of sixty Associate medical director of the Eastman Kodak Company of

Rochester, he was nationally known in the field of industrial medicine and was former president of the New York State Society of Industrial Medicine

Dr Slater was graduated from Cornell University Medical College in 1914 and served overseas for the Red Cross during World War I as resident surgeon at a military hospital for France Commissioned in 1918 at the Army Medical School, Washington, D C, in the Army Medical Corps, he served as chief medical examiner of the Engineers Examiners Board before entering private practice in Rochester and becoming associated with Eastman Kodak.

Former president of the Seventh District Branch of the State Medical Society, Dr Slater was a fellow of the American Association of Industrial Physicians and Surgeons and was a member of the New York State and Monroe County Medical Societies

Samuel Aaron Tannenbaum, M.D, seventy-five, died on October 30 at his home in New York City A graduate of the College of Physicians and Surgeons, Columbia University, in 1898, Dr Tannenbaum apportioned his time to the study of medicine and sixteenth and early seventeenth century literature, becoming known as a Shakespearean scholar He was the author of more than 200 articles and 57 books on Elizabethan literature and on psychoanalysis

William J Tierney, M.D, New York City, died on November 23 at the age of eighty-one He received his medical degree from New York University in 1888 and was medical officer of the New York City Fire Department from 1905 until his retirement in 1947

Giovanni Tenca, M D, fifty-three, died on October 16 at Memorial Hospital, New York City Born in Italy, Dr Tenca was a graduate of the College of Medicine and Surgery of the Royal University of Parma in 1920 and came to the United States in 1932 For fourteen years he was a medical examiner for the Equitable Life Assurance Society

Samuel Abbott Volpert, M.D of Lake Placid, died from a heart attack on November 27 at his home He was forty-nine Dr Volpert was graduated from the Syracuse University College of Medicine in 1922 and had practiced in the Lake Placid area. He was a member of the New York State and Essex County Medical Societies

Ernest Milton Watson, M.D, sixty-three, died on December 5 at Buffalo General Hospital from a cerebral hemorrhage A graduate of the Johns Hopkins Medical School in 1913, he served his internship in medicine at Gorgas Memorial Hospital, Canal Zone Dr Watson was professor of urology at the Buffalo University Medical School, attending urologist at Children's Hospital and at Buffalo General Hospital, visiting urologist at Meyer Memorial Hospital, and consulting urologist at Roswell and Marine Hospitals A fellow of the American College of Surgeons, he was a member of the Buffalo Academy of Medicine, the American Urological Association, the Western New York and Ontario Urological Society, and the New York State and Erie County Medical Societies

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REHABILITATION AND THE GENERAL PRACTITIONER

In an address delivered before the 57th Annual Meeting of the Association of Life Insurance Medical Directors by Howard A. Rusk, M.D professor and chairman, Department of Rehabilitation and Physical Medicine, New York University College of Medicine on "Dynamic Therapeutics in Chronic Disease Pay Dividends," Dr Rusk stated that, in rehabilitation, as in definitive medical care, the general practitioner is an essential and integral member of the therapeutic team

Today, as new and mounting demands are made upon him to restore his patients to maximum economic and social effectiveness, he must turn to the expanding field of rehabilitation and physical medicine for increased technical skills and assistance

However, many of these simple technics he can apply directly in his office, home, and hospital practice to help his physically disabled patients "learn to live and work with what they have left'

HOSPITAL NEWS

Name Medical Staff for Seton Hospital

APPOINTMENT of the medical staff for Seton Hospital, the Bronx, a 500-bed tuberculosis institution taken over by New York City last year, has been announced by Dr Edward M Bernecker, commissioner of hospitals Dr Eli H Rubin has been named director of medicine and chairman of the medical staff Other directors of service are Dr Alexander E W Ada, surgery, Dr Forris E Chick, pediatrics, Dr Goodlatte B Gilmore, otolaryngology, Dr Nathan Savitsky, neuropsychiatry, Dr John Duff, urology, and Dr Joseph Hory, ophthalmology Consultants for the medical staff of Seton Hospital include Dr J Burns Amberson, medicine, Dr Louis H Barenberg, pediatrics, Dr Edward R Cunniffe, surgery, Dr Joseph Golomb, pediatrics, Dr Milton J Goodfriend, gynecology, Dr H C Maier, thoracic surgery, Dr Nathan B Van Etten, medicine, Dr H M Zimmerman, pathology, Dr Frank Berry, thoracic surgery, and Dr Murray L Brandt, gynecology

State to Get Seven New Hospitals in V A Program

NEW YORK STATE will share in the Veterans Administration's $1,000,000,000 ninety-one-hospital building program to the extent of $122,000,000 and seven new hospitals

The hospitals, four of which are already under construction, will house more than 8,000 long-term patients and will be capable of handling more than three times that number on a short-term or daily basis Most of the hospitals will be general medical and surgical institutions, but one, the Franklin Delano Roosevelt Veterans Hospital near Peekskill, will specialize in neuropsychiatric treatment.

The six other hospitals will be at Albany, Syracuse, Buffalo, Fort Hamilton in Brooklyn, First Avenue and East Twenty-fifth Street in Manhattan, and at a site in New York City not yet chosen The new hospitals will bring the total number of V A hospitals in the State to 17

Colonel W W Wanamaker, district engineer, revealed that the last piece of outside brick has been put in place on th 1,000-bed Fort Hamilton Hospital Work is progressing according to schedule, he said, and if all goes well, patients will begin to be admitted by November, 1949

The Franklin Delano Roosevelt Hospital, which overlooks the Hudson River, is 54 per cent complete and will be ready for occupancy in the fall of 1949 It consists of 31 buildings and will have a bed capacity of 1,984 Excavation has been completed and foundations have been poured for all the buildings Brick work has been started on 19 buildings and roofs have been installed on 10

All seven hospitals will be completed by 1953, but personnel recruitment will not start until the summer of 1949 All the nonprofessional positions will be filled through civil service channels

Set Home Care Experiment for Rheumatic Fever Patients

AN EXPERIMENT in the care of rheumatic fever patients, which, it is hoped, will enable the patient to live at home under adequate medical supervision, has been set up at the Montefiore Hospital, the Bronx, according to an announcement made by Dr Robert L Levy, president of the New York Heart Association The experiment is made possible by a grant of $52,600, covering the period through December 31, 1949, which was voted by the Association as a result of a survey made by the organization's committee on institutional care, under the chairmanship of Dr Alfred Langmann

The project is described as a pilot study on home care for "medically indigent" children with rheumatic fever, the purpose of which is to find an economically feasible means of providing continuous medical care for patients who have been released from hospital treatment. Services are made available free of charge to families which otherwise could not afford the care

Explain Hospital Deficits

A GENERAL hospital maintaining an outpatient department can trace one third of its operating deficit to that department, according to the *Bulletin* of the Hospital Council of Greater New York, published recently

"Although there has been a reduction in the amount of outpatient service in recent years," it is said, "the expense of operating the outpatient department increased well over 100 per cent between 1937 and 1947"

Outpatient department expenses of the 49 voluntary general hospitals belonging to the United Hospital Fund increased from $3,590,000 to $7,590,000, while the total income in 1947 was $3,160,000

Lay Cornerstone for Additional Cancer Hospital

CORNERSTONE ceremonies for the ten-story, 300-bed James Ewing Hospital for Cancer, New York City, which will be affiliated with the Memorial Cancer Center, were held November 26, 1948, with Mayor William O'Dwyer as principal speaker Dr Edward M Bernecker, city commissioner of hospitals, presided

Expected to be completed late this year, the hospital is being constructed of rigid steel frame and reinforced concrete with the exterior of red brick to match Memorial Hospital and the Sloan-Kettering Institute for Cancer Research, thus bringing into architectural harmony the entire Memorial Cancer Center group

NEWS NOTES

Dr Edward M Bernecker, New York City commissioner of hospitals since March, 1942, retired from the post at the end of December In his notice of retirement, he summarized his department achievements, and predicted that "significant developments" in the city hospitals since 1945 will have "far-reaching effects not only in this city but throughout the country"

"Application of Physics to Clinical Medicine" was the topic of a clinical conference held December 20, 1948, by the Mount Sinai Hospital, New York City Speakers and their topics were Dr S B Yohalem, "Graves' Disease Treated with Radioactive Iodine", Dr S Megibow, "Patent Ductus Arteriosus Diagnosed by Microplethysmography", Dr N Simon, "Carcinoma of Thyroid Gland Treated with Radioactive Iodine", Dr P Kaunitz, "Urinary Calculus Identified by X-ray Diffraction," and Dr S Estron, "A Case of Polycythemia Vera Treated with Radioactive Phosphorus"

Dr Philip T Cortese, Amsterdam, has been appointed as full-time hospital physician at the Amsterdam plant of the Bigelow-Sanford Carpet Company, succeeding Dr Edward A Bogden, who has returned to private practice

Dr Stuart Winning, Brooklyn, has assumed the position of chief surgeon at the A Barton Hepburn Hospital, Ogdensburg, following his appointment by the board of directors.

Dr George F Bock was elected president of the medical staff of the Mercy Hospital, Watertown, at the annual election held November 30, 1948 He succeeds Dr Sutherland E Simpson Other officers are Dr Thomas N Sickles, vice-president, and Dr Charles F Goodnough, secretary

Dr Richard Nauen, Delmar, hospital medical adviser in the State Division of Tuberculosis Control, has been appointed acting director of the J N Adam Memorial Hospital at Perrysburg

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ROCHESTER BLUE SHIELD PLAN EXPANDS MEMBERSHIP

Individual subscribers to Blue Cross in Rochester are now being given an opportunity to become members of Blue Shield, according to a recent announcement by Dr Maurice A. Barnard, president of Blue Shield

Originally enrolled through a group, many Blue Cross subscribers transfer to an individual contract and pay their dues directly to the Plan upon termination of their employment where the group was formed Such nongroup members frequently total more than one fourth of the enrollment in the average Blue Cross Plan Wherever Blue Cross membership is required before a person may subscribe to the affiliated Blue Shield Plan, these direct payment members have not been eligible due to group enrollment requirements.

Blue Shield in Rochester is one of the first Plans to offer membership to Blue Cross nongroup subscribers An earlier experiment of this type was made in Kansas City a year ago, and repeated again last summer, with nearly 40 per cent of the eligibles signing up for Blue Shield

MEDICAL NEWS

Medical Academy Gets Ancient Manuscript

THE Edwin Smith Papyrus, termed "the oldest scientific book in America and the oldest nucleus of really scientific knowledge in the world," was presented to the New York Academy of Medicine by the New York Historical Society and the Brooklyn Museum at ceremonies held December 2, 1948

Dr Fenwick Beekman, president of the Historical Society, made the address of presentation The Papyrus is estimated to be 3,600 years old and contains the most important body of medical knowledge which has survived from the ancients Divided into three parts, it deals with surgery in a series of 48 illustrative cases, each presented methodically, beginning with the name of the ailment, the examination, a diagnosis and finally the "verdict" In the text the word "brain" occurs for the first time in writing

The papyrus, which was translated in the 1920's by the late Dr James Henry Breasted, was purchased in Luxor in 1862 by the late Edwin Smith, Egyptologist, and presented by his daughter to the Historical Society

Survey of Medical Education

THE Council on Medical Education and Hospitals of the American Medical Association and the Association of American Medical Colleges will sponsor a joint survey of medical education, beginning January 1 New York members of the committee of seven appointed to conduct the survey and publish a report of its finding include Dr Alan Valentine, president, University of Rochester, chairman, Dr Herman G Weiskotten, dean of the Syracuse University College of Medicine, and Dr Joseph C Hinsey, dean of the Cornell University Medical College

The committee has appointed Dr John E Deitrick, New York City, to be the full-time director of the survey He is associate professor of medicine at the Cornell University Medical College and medical director of postgraduate instruction of the Second (Cornell) Medical Division, Bellevue Hospital, New York City

Objectives of the study are to evaluate the present programs and determine the future responsibilities of medical education in its broadest aspects for the purpose of

1 Improving medical education to better meet the over-all needs of the American people for the prevention of disease, the restoration as far as possible to health of all those who have suffered ill health or injury, and for the maintenance of the best standards of the physical and mental health of all the people

2 Assessing the degree to which medical schools are meeting the needs of the country for physicians

3 Promoting the advancement of knowledge in the field of medical science

4 Better informing the public concerning the nature, content, and purposes of medical education

American Board of Obstetrics and Gynecology

THE next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 4, 1949

Arrangements will be made so far as is possible for candidates to take the Part I examination (written paper and submission of case records) at places convenient for them Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held May 8 to 14 inclusive, 1949, at the Hotel Shoreland, Chicago, Illinois Notice of the exact time and place of the Part I and Part II examinations will be sent all candidates well in advance of the examination date

New bulletins are now available for distribution upon application and give details of all changes in Board requirements and regulations made at the annual meeting of the Board held May 16 to May 22, 1948 These relate both to candidates and to hospitals conducting residency services for training

Application forms and bulletins are sent upon request made to the American Board of Obstetrics and Gynecology, 1015 Highland Building, Pittsburgh 6, Pennsylvania

Dedicate Rehabilitation Center at Buffalo

THE Western New York Civic Committee for Education on Alcoholism, comprised of more than 80 interested community leaders, secured funds to establish a Rehabilitation and Information Center in the University of Buffalo Medical School, which was formally dedicated on December 2 A grant of Federal money was made through the New York State Department of Mental Hygiene and will be administered on the State level by the State Department of Health and on the local level by the Medical School with the cooperation of the Committee and the Medical Society of the County of Erie

Speakers at the ceremony were Dr Stockton Kimball, dean of the School of Medicine, Dr E Dean Babbage, president of the Erie County Society, and Dr Kenneth Goldstein, of the Rehabilitation Center

Cornell Offers Graduate Instruction in Internal Medicine

CORNELL University Medical College is now offering graduate instruction in internal medicine and neurology. The teaching facilities of the Second (Cornell) Medical Division, Bellevue Hospital, New York City, comprising one hundred and forty-five beds, are devoted exclusively to this work. The instructors are members of the faculty of Cornell University Medical College.

The course is designed to give practical instruction in the subjects of internal medicine, neurology, and pathological physiology. The work consists of daily bedside study of patients on the medical and neurologic wards. Each physician is assigned a series of patients and cooperates with the resident and attending staff in their care. A limited number of men may obtain special training in cardiology, hematology, diabetes, endocrinology, and gastrointestinal diseases in the special clinics of the outpatient department. All students receive practical instruction in electrocardiography.

The teaching program is a continuous one and physicians are admitted on the first of each month as vacancies occur. For any one individual, the course is of either three months or six months duration. The three months course may include six weeks of neurology and six weeks of medicine or may be limited entirely to medicine. The maximum number of physicians registered in the course at any one time will be limited to 25.

An examination is offered by the Department of Medicine, Cornell University Medical College, at the end of the course. Successful completion of this examination and satisfactory ratings by individual tutors will be required of those who desire credit in partial fulfillment of the requirements of the American Board of Internal Medicine.

Inquiries and applications should be addressed to Dr. John E. Deitrick, Director, Second (Cornell) Medical Division, Bellevue Hospital, First Avenue and Twenty-sixth Street, New York 16, New York.

Doctors Serving New York 50 Years Honored

MORE than 30 doctors, each of whom has practiced in or about New York City for fifty years or more, were honored December 7 at the New York University-Bellevue Medical Center during ceremonies commemorating the merging in 1898 of the formed Bellevue Hospital Medical College into New York University College of Medicine.

Highlight of the speaking program and reception, which marked the event, was a tribute paid by Dean Currier McEwen, speaking on behalf of the Medical Center to veteran doctors graduated in 1898 or before. Thirty-two of the cited doctors were present and received the tribute in person. Also present were doctors who were undergraduates of the College in the years immediately following the merger, together with leaders of the Medical Center and officials of the Department of Hospitals of New York.

Among the doctors honored were Dr. Nathan B. Van Etten, past president of the American Medical Association, Dr. Samuel A. Brown, acting chairman of the board of trustees, New York University-Bellevue Medical Center, Dr. William Logie Russell, professor emeritus of psychiatry, Cornell University Medical College, Dr. Thomas A. Gonzales, medical examiner of New York City, and Dr. John F. Erdmann and Dr. John J. Moorhead, New York surgeons.

Among other distinguished alumni present were Dr. Homer Swift, formerly director of the Rheumatic Fever Service, Rockefeller Institute for Medical Research and during World War II acting director of the Rockefeller Hospital, Dr. John M. Hanford, now a member of the Columbia University medical faculty, and such noted New York physicians as Dr. Hervey C. Williamson, Dr. Luther B. MacKenzie, and Dr. Claude Heaton, New York medical historian.

The old University Medical College was founded in 1841 and the Bellevue Hospital Medical College in 1861 on the grounds of Bellevue Hospital. After the merger in 1898, the College of Medicine was known as the University and Bellevue Hospital Medical College until 1935, when the present name was officially adopted.

Postgraduate Fellowships Announced

POSTGRADUATE fellowships in the fields of research, physical medicine and public health are now available through the National Foundation for Infantile Paralysis. Application may be made to the Foundation at 120 Broadway, New York 5, New York, at any time during the year. Selection of candidates will be made on a competitive basis by committees composed of specialists in each field. Awards are based on the individual need of each applicant.

Research fellowships are available in virology, orthopedic surgery, pediatrics, epidemiology, and neurology. These fellowships are intended to emphasize advanced training in the basic sciences as they apply to the particular specialty and to research and experience in research, which need not be immediately related to poliomyelitis.

In physical medicine, clinical fellowships are available for physicians who wish to prepare for eligibility for certification by the American Board of Physical Medicine. Public health fellowships are available to physicians for one year of postgraduate study leading to a Master of Public Health degree at a school of public health approved by the American Public Health Association. Further information may be obtained from the Foundation.

MEETINGS

PAST

Middle Atlantic States Regional Conference

The Middle Atlantic States Regional Conference was held on November 18, 1948, in Philadelphia, with the Philadelphia County Medical Society acting as host Topic of the morning session was, "What Is the Responsibility of the Practitioner in Relation to Hospital Financing?" and of the afternoon session, "Blue Cross-Blue Shield—Commission Proposals"

New York participants included Dr Thomas A McGoldrick, Brooklyn, a member of the A M A Council on Medical Service, who served as moderator of the afternoon session

Saranac Lake Medical Society

At a meeting of the Saranac Lake Medical Society on November 24, Dr Elliott Michelson spoke on "Thoracoplasty at Trudeau" and Drs G W Wright and R. S Mitchell discussed "Pneumoperitoneum"

At the December 1 meeting, Dr William W Beckman, assistant dean of the New York University College of Medicine, spoke on "Medical Aspects of Social Service"

Brooklyn Dermatological Society

At the meeting of the Brooklyn Dermatological Society in December, the following officers were elected Dr E A Gauvain, president, Dr I N Holtzman, vice-president, Dr S I Greenberg, secretary-treasurer, and Dr S H Silvers, editorial secretary Meetings are held on the third Monday of each month, at the Brooklyn Hospital Dispensary

FUTURE

Women's Medical Society of New York State

The semiannual meeting of the Women's Medical Society of New York State will be held January 29 and 30 in New York City Further details will be announced Dr Adelaide Romaine, New York City, will preside

Association of Military Surgeons of the United States, Metropolitan New York Chapter

A joint meeting of the Metropolitan New York Chapter of the Association of Military Surgeons of the United States and the New York Academy of Medicine will be held Monday evening, January 31, at 8 30 P M , at the Academy

Dr George Baehr, president of the Metropolitan Chapter, will be chairman of the meeting The program will include the following speakers and topics Major General R W Bliss, surgeon general, U S Army, "Military Responsibility for Civilian Health in War", Admiral Ross T McIntire, administrator of the National blood program, American Red Cross, "American Red Cross National Blood Program", Dr Edwin J Cohn, professor of biologic chemistry, Harvard Medical School, "Fractionation of Blood", Dr Louis K Diamond, department of pediatrics, Harvard Medical School, "The Rh Factor," and Colonel Elbert DeCoursey, U S Army, "Effects of Atomic Radiations on Blood forming Elements"

PERSONALITIES

Honored

Dr Maurice J Lewi, president and founder of Long Island University's College of Podiatry, by a group of 100 friends and relatives in celebration of his ninety-first birthday Dr George N Papanicolaou, New York City, professor of clinical anatomy at Cornell University Medical College, who received the Borden Prize for the outstanding contribution by a faculty member of an American medical college in the field of medical science Dr Mary Ross, Binghamton, named Broome County's outstanding general practitioner by the Broome County Medical Society Dr Howard A Rusk, New York City, chairman of the department of rehabilitation and physical medicine at New York University College of Medicine, who received the annual meritorious award of the National Rehabilitation Association for outstanding service in the field of rehabilitation

Appointed

Dr George B Jerzy Glass, New York City, as assistant clinical professor of medicine at the New York Medical College, Flower and Fifth Avenue Hospitals

Elected

Dr Arthur M Dickinson, Albany, as vice-president of the Association of Surgeons of the New York Central System Dr George H Marcy, Buffalo, as president of the same group Dr Horace S Baldwin, New York City, treasurer of the American Academy of Allergy

Retired

Dr Joe Rainey Clemmons, executive vice-president and medical director of Roosevelt Hospital, New York City, for the past eleven years, on January 1

Speakers

Dr Maurice Meltzer, New York City, on "Present Day Treatment of Prostatism, Benign and Malignant" at a meeting of the North Hudson Physicians Society, North Hudson Hospital, Weehawken, New Jersey, on November 22 Dr George T Pack, New York City, on November 17 at a cancer conference for Rhode Island physicians held under the auspices of the Rhode Island Medical Society at Providence, and on December 1 at a cancer seminar at the University of Maryland, Baltimore, on "Can-

cer of the Stomach" Dr George M Wheatley, New York, chairman of the rheumatic fever committee of the American Academy of Pediatrics, on November 21 at the academy's annual meeting in Atlantic City, New Jersey

New Offices

Dr A. S Catinella, former Batavia health officer, general practice in New York City Dr Richard J Clifford, Navy veteran, general practice in Amsterdam

Dr Robert D Hubbard, a veteran of five years service with the Army Medical Corps in the South Pacific, practice of dermatology and syphilology with the Slocum-Dickson Clinic, Utica

COUNTY NEWS

Albany County

The annual election of officers of the Albany County Medical Society was held at the December 15 meeting The slate presented by the nominating committee included Dr Edward S Goodwin, president, Dr Thomas J O'Donnell, vice-president, Dr Albert Vander Veer, secretary, Dr Frances E Vosburgh, treasurer, and Dr Emerson C Kelly, historian

Speakers at recent meetings have included at the November 24 meeting, Dr L C D Bingham, professor of surgery, Queens University, Kingston, Ontario, on "Early Diagnosis and Treatment of Carcinoma of the Colon," and at the October 27 meeting Dr J S L Browne, professor of medicine, McGill University, Montreal, Quebec, on "The Alarm Reaction and the Diseases of Adaptation"

The annual dinner dance of the society was held on December 9 at the Colonie County Club, Albany

Allegany County

Dr Henry C Shaw, associate professor of medicine at the University of Rochester School of Medicine and Dentistry, spoke on "Common Diseases of the Skin" at the meeting of the Allegany County Medical Society held November 11 in Belmont The lecture was postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society with the cooperation of the State Department of Health

Bronx County

Dr Louis J Soffer spoke on "The Role of the Adrenals in Health and Hypofunction and Hyperfunction of the Adrenals" at the November 17 meeting of the Bronx County Medical Society

At the October 20 meeting, Dr Renato J Azzari, president of the county society, gave his inaugural address, Dr Leo F Simpson, president of the State Society, spoke on "Your State Medical Society," and Dr David J Kalisk, director of the State Society's Workmen's Compensation Bureau, spoke on "The New York State Compensation Law"

Broome County

Progress of the rheumatic fever program inaugurated last spring was reviewed by Dr William Aten, chairman of the program, at the meeting of the Broome County Medical Society October 12 in Binghamton Dr William H. Hobbs, Binghamton, discussed cancer of the breast.

Chenango County

"The Painful Back" was the topic of a lecture by Dr Roscoe D Severance, clinical professor of orthopedic surgery, Syracuse University College of Medicine, at the meeting of the Chenango County Medical Society December 14 in Norwich The program was postgraduate instruction arranged by the Council Committee on Public Health and Education with the State Department of Health

Clinton County

New officers were elected at the meeting of the Clinton County Medical Society held November 16 They are Dr Aaron Davis Mooers, president Dr Leonard J Schiff, Plattsburg vice-president, and Dr Kenneth M Clough, Plattsburg, secretary-treasurer

At the October 28 meeting, postgraduate instruction was given by Dr Leon G Berman, clinical associate professor of surgery, Syracuse University College of Medicine, on "The Diagnosis and Treatment of the Acute Abdomen"

Cortland County

Dr William Woodin, instructor in medicine at the Syracuse University College of Medicine, spoke on "The Antihistaminic Drugs in Therapy of Allergic Diseases" at the meeting of the Cortland County Medical Society on November 19 in Cortland The instruction was arranged by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

Dutchess County

On December 8, a dinner meeting of the Dutchess County Medical Society and its Auxiliary was held in Poughkeepsie, with Dr Joseph S Lawrence, director of the Washington office of the Council on Medical Service of the A M A, as guest speaker His topic was "Medical Legislation"

Dr John E Heslin, professor of urology at Albany Medical College, spoke on "Conservation of Renal Function" at the November 10 meeting held at the Hudson River State Hospital, Poughkeepsie. At the October 16 meeting, held at the Veterans' Hospital, Castle Point, Dr Konrad Birkhaug, from the State Department of Health, spoke on "BCG Vaccination Against Tuberculosis"

Essex County

At the annual meeting of the Essex County Medical Society, held October 7, the following officers were elected Dr T J Cummins, president, Dr Wilbur S Rose, vice-president, and Dr James E Glavin, secretary-treasurer

Fulton County

Dr Locke L Mackenzie assistant professor of obstetrics and gynecology at the New York University Post-Graduate Medical School, spoke on

"The Use of Cell Smears in the Early Diagnosis of Cancer" at the meeting of the Fulton County Medical Society held November 17 in Johnstown The program was arranged by the Council Committee on Public Health and Education of the State Society with the cooperation of the State Department of Health

Greene County

Dr Michael Viviano of Tannersville was elected president of the Greene County Medical Society at the annual meeting held October 12 in Catskill Other officers elected were Dr M K Colle, vice-president, Dr William M Rapp, secretary, and Dr Mahlon H Atkinson, treasurer, all of Catskill

Jefferson County

"Practical Problems in Management of Diabetes" was discussed by Dr William S Collens, of Brooklyn, chief of the diabetic and peripheral vascular disease clinic of Israel Zion Hospital, at the meeting of the Jefferson County Medical Society held December 9 in Watertown

At the November 11 meeting, Dr Harry A Steckel, professor emeritus of psychology at the Syracuse University College of Medicine, spoke on "Psychosomatic Medicine"

Dr Leonard M Vincent of Brownville was elected president of the Jefferson County Society at the annual meeting

Kings County

Speakers at the November 16 meeting of the Kings County Medical Society included Miss Marie Knowles, executive director of the Visiting Nurse Association of Brooklyn, who explained the activities of the group, Dr George E Anderson, secretary of the American Diabetes Association, on "Diabetes Detection Drive," and Louis Bromfield, Ohio, on "Health Through the Soil"

At the October 19 meeting the program was sponsored by the Brooklyn Cancer Committee, and included "Cytogenic Aspects of the Cancer Problem," Dr Vernon Bryson, Cold Spring Harbor, "Carcinoma of the Breast," Dr Cushman D Haagensen, New York, "Cancer of the Colon and Rectum," Dr Frank H Lahey, Boston, Massachusetts, and "Teamwork in Cancer Diagnosis," Dr Brewster S Miller, American Cancer Society

Lewis County

Dr Harry A Steckel, professor emeritus of psychiatry at the Syracuse University College of Medicine, spoke on "Alcoholism as a Medical Problem" at the meeting of the Lewis County Medical Society held November 4 in Lowville The postgraduate instruction was arranged by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

Livingston County

Dr Ward Ekas of Rochester spoke on "Office Gynecology" at the meeting of the Livingston County Medical Society held October 27 at the Avon Inn

Monroe County

A one-day program of postgraduate instruction was presented for the Monroe County Medical Society on November 11 at the Rochester Academy of Medicine Arrangements were made by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

Speakers and their topics were Dr Paul A Bunn, associate professor of medicine, Syracuse University College of Medicine, "Recent Advances in Chemotherapy of Bacterial Infections", Dr William T Foley, instructor in medicine, Cornell University Medical College, "The Use of Dicumarol in Cardiovascular Diseases", Dr Edward F Hartung, assistant clinical professor of medicine and chief of the division of arthritis, New York Post-Graduate Medical School and Hospital, "Diagnosis and Treatment of Back Pain from the General Practitioner's Point of View", Dr A H Aaron, clinical professor of medicine, University of Buffalo School of Medicine, "The Periodic Health Examination with Special Reference to Cancer Control," and Dr Leon H Griggs, clinical professor of medicine, Syracuse University College of Medicine. "Common Diseases of the Skin"

Nassau County

A series of postgraduate instruction lectures have been arranged for the Nassau County Medical Society by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health, and are being held Thursday afternoons, at 4:00 P M , at the Nassau Hospital auditorium, Mineola.

Future programs include

January 27—"Newer Concepts and Therapy of Hypertension"—Dr Richard S Gubner, assistant medical director, Equitable Life Assurance Society, New York

February 3—"Common Parasitic Infections Encountered in General Practice"—Dr Arthur W Grace, professor of clinical dermatology and syphilology, Long Island College of Medicine

February 10—"The Management of the Failing Heart"—Dr Nathaniel T Kwit, associate cardiologist, Beth Israel Hospital and Hospital for Joint Diseases

Feburary 17—"What Can the General Practitioner Do About Lowering Cancer Mortality?"—Dr Lloyd F Craver, associate professor of clinical medicine, Cornell University Medical College

At a joint meeting of the Nassau County Medical Society and its Woman's Auxiliary, held November 30 at the Garden City Hotel, the speaker was Mr John Hennessy, chairman of the board, Hotel Statler, who discussed "Future in Foods" and gave a radar demonstration

Niagara County

Dr Murray S Howland, department of medicine, Buffalo General Hospital, spoke on "Evaluation of Recent Advances in Ulcer Therapy" at the meeting of the Niagara County Medical Society, held November 9 in Lockport.

At the October 12 meeting, held in Lewiston, Dr F J Clifford of Niagara Falls spoke on "Immediate Treatment of Facial Wounds"

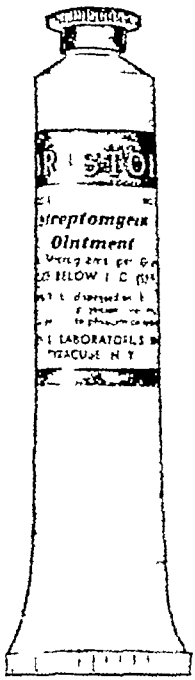
Onondaga County

"An American Looks at the World Today" was discussed by Professor Donald G Bishop of Syracuse University at the annual meeting of the Onondaga County Medical Society held December 7 in Syracuse

The annual election of officers was held, with the following slate presented by the nominating committee Dr L W Ehegartner, president, Dr C F

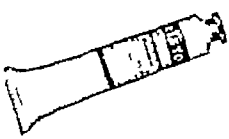
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Streptomycin *is now available in* Ointment *form*



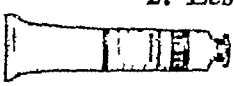
Here is another original contribution to the antibiotic armamentarium from Bristol Laboratories streptomycin sulfate for topical application, in a smooth, greaseless, ointment base This significant development of Bristol research is noteworthy for the following

1. A Broad Antibacterial Spectrum



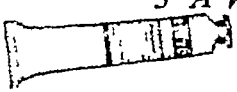
The variety of bacteria destroyed or inhibited by streptomycin is remarkably broad Its antibacterial spectrum surpasses those of other antibiotics in current use for topical application

2. Less Sensitizing



Streptomycin in ointment form minimizes the greatest single objection to topical antibiotic therapy in that it is demonstrably less sensitizing

3 A Water-Soluble Ointment Base



Bristol Streptomycin Ointment is unusually pleasant to use because it is incorporated in a smooth water soluble base Despite the fact that there is no grease or oil, adequate potency can be expected to persist throughout the full dating period of nine months after manufacture

Bristol STREPTOMYCIN OINTMENT is indicated in skin and wound infections due to streptomycin-sensitive organisms Each gram of the ointment contains 5000 micrograms of pure streptomycin.

Available NOW from your usual source of supply in 1 oz tubes singly, or packed 12 to a carton

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[Continued from page 92]

Potter, vice-president, Dr I L Ershler, secretary, and Dr A. C Hofmann, treasurer

Ontario County

Dr Robert Doran was elected president of the Ontario County Medical Society at the annual meeting held October 12 in Canandaigua Other officers chosen are Dr C C Williamson, president-elect, Dr Carl B Smith, secretary-treasurer

Orange County

Programs of postgraduate instruction, arranged for the Orange County Medical Society by the Council Committee on Public Health and Education of the State Society and the State Department of Health, were held November 9 and November 23 in Goshen

Speakers were Dr H S Weichsel, compensation medical examiner, New York Workmen's Compensation Board, "Trauma and Peripheral Vascular Disease," and Dr A H Aaron, clinical professor of medicine, University of Buffalo School of Medicine, "The Evaluation of the Common Drugs in General Practice"

Oswego County

Dr L Maxwell Lockie, head of the department of therapeutics at the University of Buffalo School of Medicine, spoke on "Management of Arthritis—Acute and Chronic" at the meeting of the Oswego County Medical Society held November 16 in Fulton The program was postgraduate instruction arranged by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

Queens County

A series of Friday afternoon meetings, arranged by the Queens County Medical Society's committee on graduate education, have been held, with the following speakers and topics November 5—Dr Jacob Werne, assistant medical examiner, New York City, "Unexpected Findings in Unexpected Deaths", November 12—Dr Henry K Taylor, Goldwater Memorial Hospital, "Angiocardiography", December 3—Dr Linn J Boyd, director of medicine, New York Medical College, "Pulmonary Embolism", December 10—Dr Harry Erhlich, director of the tumor clinic, Mount Sinai Hospital, "Tumors of the Head and Neck," and November 19—Dr George Schaefer, clinical instructor, obstetrics and gynecology, New York Medical College, "Tuberculosis and Pregnancy"

Richmond County

A symposium on "Heart Disease and Pregnancy" was conducted by Dr Edward P Maynard, Jr, professor of clinical medicine at the Long Island College of Medicine, and Dr J Thornton Wallace, clinical professor of obstetrics and gynecology at the Long Island College of Medicine, at the meeting of the Richmond County Medical Society held December 8

Seneca County

At the annual meeting of the Seneca County Medical Society, held October 27 at Willard, the following officers were elected Dr Emil J Bove, Seneca Falls, president, Dr Kenneth Keill, Willard State Hospital, vice-president, and Dr Bruno Riemer, Romulus, secretary-treasurer

At the meeting Dr Guy Walters, supervising psychiatrist of Willard State Hospital, spoke on "The Plan for the Care of Elderly Mental Patients," and Dr Stanley Lincoln and Dr Frederick Beck of Biggs Memorial Hospital, Ithaca, spoke on "Differential Diagnosis of Diseases of the Chest"

Steuben County

Dr C E Patti of Hornell was elected president of the Steuben County Medical Society at the annual dinner meeting held November 4 in Steuben Other officers chosen are Dr Maynard Guernsey, Corning, vice-president, and Dr R. J Shafer, Corning, secretary-treasurer

At the scientific session Dr Milton G Bohrod, pathologist and director of laboratories at Rochester General Hospital, spoke on "The Clinical Importance of Pathology"

Tioga County

Dr Ellery G Allen, clinical professor of medicine, Syracuse University College of Medicine, spoke on "General Résumé of Hematologic Disorders, Including the Anemias" at the meeting of the Tioga County Medical Society held December 7 in Candor The postgraduate instruction was arranged by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health

Warren County

At the meeting of the Glens Falls Academy of Medicine, held November 18 in Glens Falls, Dr Linn J Boyd, professor of medicine at New York Medical College, Flower and Fifth Avenue Hospitals, spoke on "Pulmonary Embolism" as a postgraduate instruction program arranged by the Council Committee on Public Health and Education with the cooperation of the State Department of Health

Washington County

New officers for the Washington County Medical Society were elected at the annual meeting held October 12 in Hudson Falls They are Dr John A Sumner, Granville, president, Dr Joseph Feingold, Fort Edward, vice-president, Dr Denver M Vickers, Cambridge, secretary, and Dr Charles H Prescott, Hudson Falls, treasurer

At the scientific session, Dr R. Leith Skinner, retiring president, gave his presidential address on "Experiences in Treatment of Hypertension," and Dr John G Hayes, Albany, spoke on "The Management of Some Common Obstetric Difficulties"

Wayne County

Dr Harry A. Steckel of Syracuse spoke on "The Psychiatric Approach in General Practice" at the meeting of the Wayne County Medical Society held October 12 in Lyons

Westchester County

"Unexplained Death" was the subject of a lecture given by Dr Alan R. Moritz, professor of legal medicine at Harvard University, at a meeting of the Westchester County Medical Society held November 16 in White Plains

The Importance of Protein Adequacy In Diabetes Mellitus

It appears in the light of recent experience that the daily protein requirement of the diabetic has been underestimated and calls for an upward revision

The success obtained in diabetic retinopathy from the use of high protein diets emphasizes the deleterious possibilities of hypoalbuminemia in this metabolic disease

In view of the excellent results observed from a high protein intake, in many forms of hepatic disease, a dietary rich in protein is suggested as a therapeutic measure in the management of liver enlargement, one of the frequent complications of diabetes [1] Since impaired liver function reduces the efficacy of insulin, prevention of liver enlargement by a liberal allowance of protein in the daily diet of the diabetic appears an important factor in the control of this disease With an estimated 2,000,000 diabetics in the United States[2] every benefit achieved in this field makes itself felt on a truly large scale

Meat is an outstanding source of protein in the dietary of the patient with diabetes mellitus for these reasons It is notably rich in protein, from 17 to 20 per cent of its uncooked, and from 25 to 30 per cent of its cooked weight. The protein of meat, regardless of cut or kind, whether fresh, cured, or canned, is biologically complete All meat is of excellent digestibility—from 96 to 98 per cent Furthermore, meat ranks with the best sources of B vitamins, potassium and phosphorus, all of which are essential factors in the metabolism of carbohydrate

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[1] Nutrition in Diabetes, Nutrition Rev 6 257 (Sept.) 1948

[2] Diabetes and Arteriosclerosis in Youth, Editorial, J A M.A *135* 1074 (Dec. 20) 1947

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association



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BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

REVIEWED

Symptoms and Signs in Clinical Medicine An Introduction to Medical Diagnosis By E Noble Chamberlain, M D Fourth edition Octavo of 463 pages, illustrated Baltimore, Williams & Wilkins Co , 1947 Cloth, $8 00

The jaded clinician will find in this book many sources of new enthusiasm in his never-ending study of the sick This easily read volume will disclose to the bewildered bedside medical student that synthesis of the countless facts studied in the preclinic years really is possible

Systematic appraisal of facts and the laboratory and radiographic aids that bear on the clinical problems are thoroughly elucidated The section on the nervous system is intellectually inviting and beautifully simple

MAURICE TULIN

History of Medicine A Correlative Text, Arranged According to Subjects By Cecilia C Mettler, Ph D Edited by Fred A Mettler, M D Octavo of 1,215 pages, illustrated Philadelphia, Blakiston Co , 1947 Cloth $8 50

Let no one believe this to be "just another" history of medicine It is indeed a monumental work which occupied the last nine years of a brilliant mind Sad indeed that with the completion of this book the author's career came to a sudden and sad end

In this work you will find a review of the various stages in the progress of medicine, as far back as the anatomic observations by Galen and on through the Middle Ages and up to the present era of specialization Here you will meet with the immortals like Röentgen, Einthoven, Virchow, Pasteur, Koch, etc The specialties are treated individually, pointing out the various steps toward progress References are listed in profusion throughout the book All in all, it is a book worth owning and reading

HARRY APFEL

Progress in Clinical Medicine By Various Authors Edited by Raymond Daley, M D , and Henry G Miller, M D Octavo of 356 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $6 00

This book attempts to present advances in internal medicine while limiting itself largely to those of proved clinical value The emphasis is on practicability and offers an excellent opportunity to familiarize oneself with current trends

ADOLPH P RAAB

Physician's Handbook. By John Warkentin, M D , and Jack D Lange, M D Fourth edition Sextodecimo of 282 pages, illustrated Chicago, University Medical Publishers, 1946 Board, $1 50

The purpose of this *Physician's Handbook* is to summarize diagnostic procedures and factual data which a physician must have quickly available An effort has been made to include a relatively complete laboratory manual and other information which one might otherwise forget

NELSON M HOLDEN

The Nervous Child. By Hector Charles Cameron, M D Fifth Edition Duodecimo of 252 pages New York, Oxford University Press, 1946 Cloth, $3 00

The author has attempted to enumerate in this small volume all the traits and symptom complexes encountered in the child commonly termed "nervous" The material is compiled into separate chapter headings, and, as a result, has, of necessity, been treated somewhat sketchily It does make interesting reading and serves a good purpose in focusing on the fact that the hygiene of the child's mind is as important to the physician as is the child's body

MARK J WALLFIELD

The Thematic Apperception Test. The Theory and Technique of Interpretation. By Silvan S Tomkins, Ph D Octavo of 297 pages New York, Grune & Stratton, 1947 Cloth, $5 00

This test was first published in 1935 by Morgan and Murray It is based on a series of pictures, the observer is instructed to create a dramatic story around them, thus revealing his own inner life

The author states that the thematic apperception test has proved useful in the exploration of child development, social attitude and sentiments, assessment of military personnel, and most recently, culture and personality

The book is well written and documented with many references It is of value, however, only to those interested in psychology and practicing psychiatry

STANLEY S LAMMI

Progress in Gynecology Edited by Joe V Meigs, M D , and Somers H Sturgis, M D Octavo of 552 pages, illustrated New York, Grune & Stratton, 1946 Cloth, $7 50

The book consists of a series of papers written on various subjects in gynecology, bringing up to date the newer knowledge The volume is divided into ten sections covering every phase of gynecology, commencing with growth and physiology and including functional disorders, endocrine glands, benign and malignant growths, the newer operative technics and postoperative care

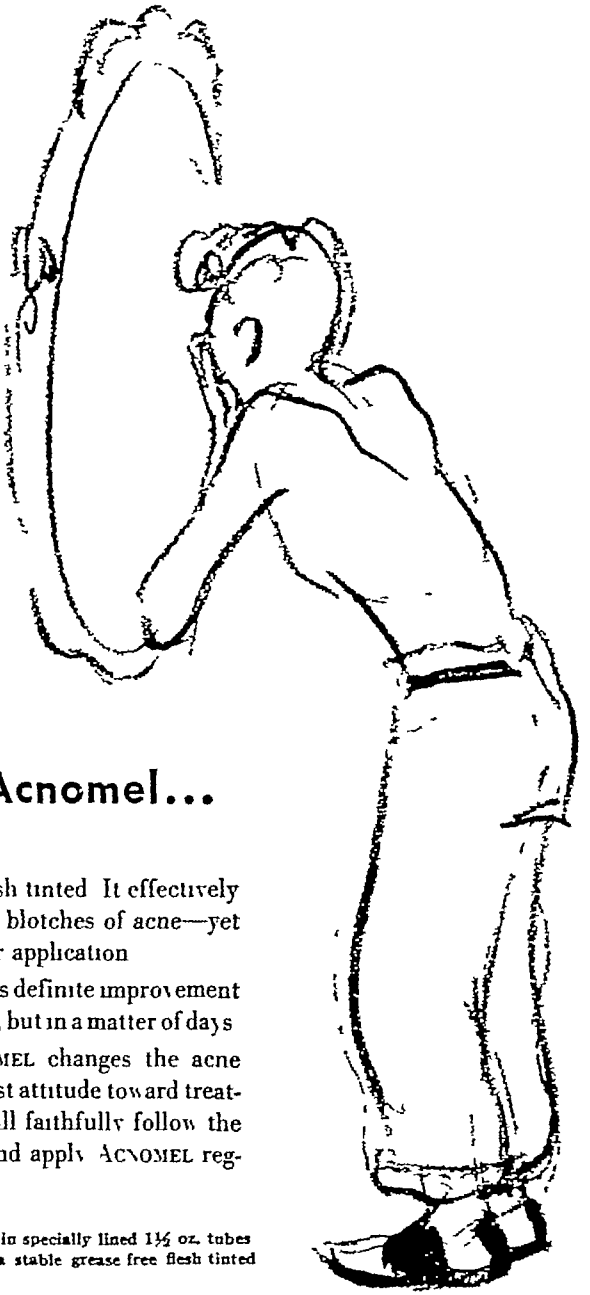
For the up-to-date gynecologist the book is a short review Its greatest usefulness will be found by those physicians interested in gynecology, who have been away from practice during the war years

JACOB HALPERIN

Reconstructive and Reparative Surgery By Hans May, M D Quarto of 964 pages, illustrated Philadelphia, F A. Davis Co , 1947 Cloth $15

The author covers a wide field, including most of the tissues and regions of the body He begins with the general principles of transferring tissues He details such varied procedures as esophagoplasty and the correction of facial, breast, and genital deformities For cancer of the breast the plastic closure is stressed rather than the complete removal of the neoplasm

[Continued on page 98]



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[Continued from page 96]

This book will probably appeal most to the isolated surgeon who must, himself, perform all types of plastic surgery WILLIAM H FIELD

Calcium and Phosphorus in Foods and Nutrition By Henry C Sherman Octavo of 176 pages, illustrated New York, Columbia University Press, 1947 Cloth, $2 75

This book contains factual information about calcium and phosphorus as they relate to the human body and its nutrition The author has devoted a sizable chapter to the subject of phosphorus

The bibliography at the end of the book does not have to be followed from page to page, as is common in current periodicals The discussions are purely informative and clinical and should be of value to all interested in these elements MORRIS ANT

The Practice of Physical Medicine By Heinrich F Wolf, M D Octavo of 322 pages, illustrated Chicago, Wilcox & Follett Co , 1947 Cloth, $5 00

In compiling this book Dr Wolf has made a distinct contribution to the better understanding of physical medicine He has drawn upon his long and extensive experience in the field, and, by a process of evaluation and elimination, has presented a true present-day view of the useful methods used In some instances Dr Wolf's opinions differ rather sharply from those usually accepted, but these opinions are based upon actual observation and must not be considered to be without merit

The book is well written and clearly printed and illustrated It will make a most desirable addition to the library of the student and practitioner of physical medicine JEROME WEISS

Morphologic Hematology *Special Issue No 1 of Blood, the Journal of Hematology* Editorial Board, William Damashek, M D , Editor-in-Chief Large Octavo of 200 pages, illustrated New York, Grune & Stratton, 1947 Cloth, $4 75

This issue of *Blood* offers illuminating articles on the bone marrow and lymph node aspirations Intensive studies are presented embracing the red cell and white cell series There are special studies on anemia and phagocytic functions in man and animals A new departure in the study of adhesiveness and agglutination of platelets is undertaken in three articles All in all, this is a valuable contribution, one that the expert and student of physiology cannot afford to miss MAURICE MORRISON

An Approach to Social Medicine By John D Kershaw, M D Octavo of 329 pages Baltimore, Williams & Wilkins Co , 1946 Cloth, $4 50

This work consists of 329 pages, well printed on good paper, and contains a small bibliography as well as an index The reader will find that the text is not written for the medical profession alone, but also for the laity It is well written and will be appreciated by those interested in good literature C T GRAHAM-ROGERS

Dermatology in General Practice By Sigmund S Greenbaum, M D *Quarto of 889 pages,* illustrated Philadelphia, F A Davis Co , 1947 Cloth, $12

This book is excellent for the purpose for which it was written An unusual feature is the placing of the various diseases in alphabetic order rather than in various classifications as is more common in dermatologic literature

The author remarks that all classifications break down as certain diseases, even with our present knowledge, defy classification For this reason the alphabetic listing is probably as good as any, if not better Altogether, this book is to be highly recommended JOHN C GRAHAM

Psychopathology and Education of the Brain-Injured Child. By Alfred A Strauss and Laura E Lehtinen Octavo of 206 pages, illustrated New York, Grune & Stratton, 1947 Cloth, $5 00

The authors are psychoeducational consultants in Evanston, Illinois, and are connected with a school for brain-injured children

The book is divded into two sections, one comprising psychopathology and the second section devoted to education of the brain-injured child This latter section is especially useful, as it indicates the specific disabilities in arithmetic, reading and writing, and the method for correction

This is a good book and is highly recommended to the profession STANLEY S LAMM

The Compleat Pediatrician Practical, Diagnostic, Therapeutic and Preventive Pediatrics For the Use of Medical Students, Interns, General Practitioners, and Pediatricians By Wilburt C Davison, M D Fifth Edition Octavo of 348 pages Durham, North Carolina, Duke University Press, Cloth, $3 75

This reviewer has had the opportunity to compare the present fifth edition with the original first and can only marvel at the way all modern advances in diagnosis and therapy have been kept up to date, to mention only the Rh factor and the use of streptomycin

The medical student, general practitioner and pediatrician will find this truly encyclopedic yet practical volume good reference reading MARK J WALLFIELD

Ear, Nose and Throat. Symptoms—Diagnosis—Treatment By George D Wolf, M D Octavo of 523 pages, illustrated Philadelphia, J B Lippincott Co , 1947 Cloth, $10

The author sets out to prepare a treatise on a very difficult subject and intends this volume to be for general office practice He accomplishes his task in an admirable manner, with the result that this book serves not only the purposes of a busy practitioner but definitely fulfills a need for students and nurses The text is prepared simply, but at the same time is complete in every detail and includes a chapter on allergy The illustrations and color plates are unusually well done The practitioner will do well to keep this book on his desk for ready reference SAMUEL ZWERLING

Communicable Diseases By Franklin H Top M D and collaborators *Second edition* Octavo of 992 pages, illustrated St Louis, C V Mosby Co , 1947 Cloth, $8 50

This book seems to contain all that anyone should know adequately to diagnose, prevent, and care for the diseases mentioned

A handbook it is not, by definition "A small guidebook or manual" This book contains 992 numbered pages If it were called encyclopedic, or better still, monographic, that would not lead the reader astray Each chapter is complete in itself, and, if one wants to read farther he has an extensive bibliography

[Continued on page 100]

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[Continued from page 98]

One would have to seek microscopically to find errors or omissions, but this reviewer supposed that it was standard procedure, in this country at this time, to take rectal temperatures "unless contraindicated" Besides age and intelligence, this eliminates the necessity of deciding the degree of mental activity in doubtful cases

This reviewer, demanding hand-washing, disbelieves its adequacy in protecting one patient from another, particularly in going from one baby to another The operating surgeon wears gloves over his "clean" hands, even in a sterile operation This applies particularly to epidemic diarrhea of the newborn

W D LUDLUM

Hodgkin's Disease and Allied Disorders. By Henry Jackson, Jr , M D , and Frederic Parker, Jr , M D Quarto of 177 pages, illustrated New York, Oxford University Press, 1947 Cloth, $6 50

This volume presents the point of view of two eminent students of Hodgkin's disease It is well arranged, complete and absolutely reliable It is a magnificent reference book for its own content and for its bibliography

ANDREW BABEY

Encyclopedia of Medical Sources By Emerson Crosby Kelly, M D Octavo of 476 pages Baltimore, Williams & Wilkins Co , 1948 Cloth, $7 50

This work will be enormously useful to anyone having occasion to consult, list, or verify original references, and this applies to all active medical men There must be few important omissions, we searched for one a long time until finally failing to find a mention of Huggins of prostatic cancer distinction However, this criticism verges on the captious in the case of a work of such excellence

ARTHUR C JACOBSON

Hospital Care in the United States A Study of the Function of the General Hospital, Its Role in the Care of All Types of Illness, and the Conduct of Activities Related to Patient Service, with Recommendations for Its Extension and Integration for More Adequate Care of the American Public. By the Commission on Hospital Care Octavo of 631 pages, illustrated New York, Commonwealth Fund, 1947 Cloth, $4.50

In November, 1947, Mr Bernard M Baruch was widely quoted as recommending more and better doctors and hospitals and urging the medical profession to get in and pitch and stop fighting a rear guard action

In preparation for its part, leaders of medical thinking will find this an excellent source book The summary of conclusions and recommendations is excellent The detailed supporting material upon which they are based contains the facts

No intelligent discussion of the hospital problem in the United States of America can be carried on without the type of background provided in this volume

ALEC N THOMSON

Paravertebral Block in Diagnosis, Prognosis, and Therapy Minor Sympathetic Surgery By Felix Mandl, M.D Translated by Gertrude Kallner, M D Octavo of 330 pages, illustrated New York, Grune & Stratton, 1947 Cloth, $6 50

This monograph on paravertebral block contains a scholarly compilation of knowledge which is of special value to the internist and surgeon

After an introductory section on anatomy and technic, the use of sympathetic nerve block in differential diagnosis and as a test method is discussed

The rest of the book covers the value of paravertebral block in angina pectoris, thrombophlebitis, and in the treatment of certain phases of causalgia, phantom limb, and reflex dystrophy of the extremities, as well as in other conditions

The book is well written and very informative

WILLIAM SHEINFELD

War Stress and Neurotic Illness By Abram Kardiner, M D with the collaboration of Herbert Spiegel, M D Second Edition of The Traumatic *Neuroses of War* Octavo of 428 pages New York, Paul B Hoeber, Inc , 1947 Cloth, $4 50

Psychiatric disorders following the two World Wars attracted the attention not only of physicians but also of all intelligent people Dr Kardiner studied the chronic cases of these mentally sick people and wrote *Traumatic Neuroses of War* Following the second World War he collaborated with Dr Spiegel, who had a rich experience with the acute cases of the last World War, and published this second edition of his work under the above title

It is a complete and thorough analysis of the subject, dealing with every phase of the illness There are many interesting case histories illustrating various aspects of the subject It is difficult to review the book because it is so scientific, so well written, and so splendidly presented that only praise can be given to it It is highly recommended as an authoritative and illuminating volume on war neurosis

IRVING J SANDS

A Primer of Cardiology By George E Burch, M D , and Paul Reaser, M D Octavo of 272 pages illustrated Philadelphia, Lea & Febiger, 1947 Cloth, $4 50

This is an excellent primer in cardiology which is well organized, authoritative, and easy to read It contains a great quantity of useful information Others besides medical students would profit by a careful study of its abundant fundamental information

ANDREW BABEY

Diseases of the Gallbladder and Allied Structures Diagnosis and Treatment. By Moses Behrend, M D Octavo of 290 pages, illustrated Philadelphia, F A Davis Co , 1947 Cloth, $7 00

The outstanding feature of this thorough, concise and up-to-date publication is its fifty pages of drawings of anatomic relations and anomalies of the gallbladder, ducts, and arteries, drawn from anatomic dissections at the Baugh Institute of Anatomy

The presentation of the medical treatment suffers because too much disjointed information is crowded into the chapter The author's preference for the delayed operation for acute cholecystitis is open to question His use of heavy catgut material may also be open to discussion Several errors in definition of terms relative to surgical anatomic structures will, no doubt, be corrected

Nevertheless, this book is a most worthwhile addition to one's library

LEWIS E SCHOTTENFELD

Human Gastric Function An Experimental Study of a Man and His Stomach. By Stewart Wolf, M D , and Harold G Wolff, M D Second edition Octavo of 262 pages, illustrated New York, Oxford University Press, 1947 Cloth, $5 00

"Tom's stomach," as visualized and studied by

[Continued on page 102]

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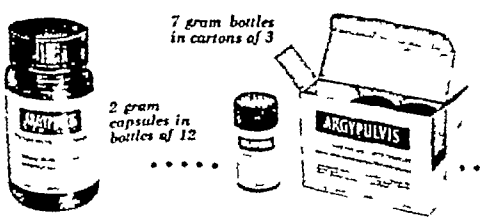
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*Reich Button and Necktow "Treatment of Trichomonas Vaginalis Vaginitis, Surgery Gynecology and Obstetrics, May 194" pp 891-8 5

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[Continued from page 100]

Wolf and Wolff, promises to become as enduring as is man's curiosity, nay, the intense desire to know the "all" of gastric functions and its aberrations The contributions made by these observers in the two editions of this book will be the more valued as time adds experience and further knowledge to that which they have revealed

One can have no words but those of praise for such a work so well done B M BERNSTEIN

Pye's Surgical Handicraft. A Manual of Surgical Manipulations, Minor Surgery, and Other Matters Connected with the Work of Surgical Dressers, House Surgeons, and Practitioners Edited by Hamilton Bailey, F R C S Fifteenth edition Octavo of 668 pages, illustrated Baltimore, Williams & Wilkins Co , 1947 Cloth, $7 00

This edition brings a practical handbook suited to the needs of hospital house officers and general practitioners up to date Numerous minor surgical, routine hospital, and medical procedures are described tersely and illustrated aptly Blood transfusion, gastric lavage, stomach and intestinal intubation, abdominal and thoracic paracentesis, to mention only a few procedures, are shown

For the country doctor and the "rotating intern" this book should be a most valuable guide

WILLIAM SHEINFELD

A Hand-Book of Ocular Therapeutics By Sanford R Gifford, M D Revised by Derrick Vail, M D Fourth edition Octavo of 336 pages, illustrated Philadelphia, Lea & Febiger, 1947 Cloth, $5 00

Dr Vail and his assistants have completely revised Dr Gifford's work on ocular therapeutics The section on disorders of muscular apparatus has been dropped, the author feeling, and rightly so, that this topic rates a more exhaustive treatise The reviewer found the sections on drugs and organic extracts used in ophthalmology and the discussions of therapy in retinitis pigmentosa and myopia of especial interest The latest thought on the antibiotics is quite instructive Dr Vail's revision should be a gratifying addition to the library of any ophthalmologist, and especially to one who has spent any time in the armed forces

CHARLES E R HOPKINS

Diagnosis in Daily Practice An Office Routine Based on the Incidence of Various Diseases By Benjamin V White, M D , and Charles F Geschickter, M D Octavo of 693 pages, illustrated Philadelphia, J B Lippincott Co , 1947 Cloth, $15

This volume, like others which are designed to help the practitioner make a quicker diagnosis from leading signs and symptoms, contains a vast quantity of sound information and many magnificent colored photographs illustrating common clinical conditions Scattered throughout the pages are numerous useful tables of differential diagnosis For the practitioner and mature student it should prove useful, mainly because of the abundant information it contains and not because it presents a new "system" making diagnosis a mechanical procedure

ANDREW BABEY

Trichomonas Vaginalis and Trichomoniasis. By Ray E Trussell, M D Octavo of 277 pages, illustrated Springfield, Ill , Charles C Thomas, 1947 Cloth, $6 00

This is not the last word on trichomonas vaginalis, but a complete summary of all that is known of this troublesome and common parasite An immense amount of well-organized research of extraordinary interest to every gynecologist will be found here The introduction by E D Plass is worth while, too

CHARLES A GORDON

Pathology of Tumors By R A Willis, M D Octavo of 992 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $20

This text on tumors covers the experience of the author during a period of twenty years as a hospital pathologist It is divided into two parts, dealing, respectively, with general properties of tumors and specific tumors of various regions of the body It is replete with numerous illustrations of excellent quality It carries at the end of each chapter an ample list of references

It is a very readable text and can be recommended to pathologists and workers in the clinical field

THEO J CURPHEY

Nursing in Modern Society By Mary Ella Chayer, R N Octavo of 288 pages New York, G P Putnam's Sons, 1947 Cloth, $4 00

Controversial problems of nursing are discussed in this book The ideas are set forth clearly and concisely The main theme is that the professional nurse needs better preparation for her job Good public relations is suggested for professional nurses, also an awareness of the changing situations in the world Selection of students for practical nursing should be on the same basis as professional nurses, so that, when they can, they may continue their education and training for professional nursing

MARIE M BEHLEN

On Hospitals By S S Goldwater, M D Octavo of 395 pages, illustrated New York, Macmillan Co , 1947 Cloth, $9 00

Through Dr Goldwater's vast experience in hospital administration and building, this book was made possible It is clearly written, has good illustrations, and is well organized The section on administration and organization should prove useful to students, boards of directors, and administrators

The patient and the community are carefully considered in regard to treatment and changes The descriptions, diagrams, and suggestions for hospital building reflect the great interest and understanding Dr Goldwater had in hospital architecture

JOSEPH TENOPYR

The Medical Clinics of North America Boston Number September, 1947 Octavo Philadelphia, W B Saunders Co , 1947 Published bi monthly (six numbers a year) Cloth, $16 net, paper, $12 net

This Boston number has valuable papers on hepatitis, edema in Bright's disease, streptomycin in meningitis, hypertension, hematology, epilepsy, and neostigmine Careful study of this volume will prove profitable ANDREW BABEY

Pictorial Handbook of Fracture Treatment. By Edward L Compere, M D , and Sam W Banks, M D Revised with the assistance of Clinton L Compere, M D Illustrated by Harold Laufman M D Second edition Large duodecimo of 390 pages, illustrated Chicago, Year Book Publishers, 1947 Cloth, $5 50

The second edition of the *Pictorial Handbook of*

[Continued on page 104]



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Photo courtesy University of Pennsylvania Museum

[Continued from page 102]

Fracture Treatment is a comprehensive symposium of the basic principles of diagnosis and treatment Students, interns, and surgeons will find this revised and profusely illustrated handbook informative, thorough, and specific in its recommendations in the treatment of the typical entities The procedures are depicted chiefly by diagrams with a concise but adequate description of procedures which are generally accepted

IRWIN E SIRIS

Clinical Diagnosis by Laboratory Methods. By James Campbell Todd, M D , and Arthur Hawley Sanford, M D , with the collaboration of George Giles Stilwell, M D Eleventh edition Octavo of 954 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $7 50

The eleventh edition of *Clinical Diagnosis by Laboratory Methods* by Todd and Sanford maintains the excellent reputation established by all the preceding editions during the past forty years The reviewer has possessed and steadily used the succeeding editions as they appeared and has never been disappointed in their usefulness In the same way this most recent edition has been completely modernized and amplified One cannot itemize all the improvements, they are so numerous Suffice to say that this book is an essential for the laboratorian, be he professionally or technically employed, as well as for the physician, general practitioner, or specialist

MAX LEDERER

The Practice of Mental Nursing By May Houliston, R M N (Eng) Duodecimo of 164 pages Baltimore, Williams & Wilkins Co , 1947 Cloth, $2 75

This is a useful book for junior nurses in mental hospitals, but it is not sufficient to take the place of a regular textbook on psychiatric nursing It is clearly written, concise, and well organized The definitions are good and the nursing care is well outlined

The book could be used in general hospitals and could be put into the hands of students in preparation for psychiatric affiliation

MARIE M BEHLEN

Diseases of the Nose, Throat and Ear By William Lincoln Ballenger, M D , and Howard Charles Ballenger, M D , assisted by John Jacob Ballenger, M D Ninth edition Octavo of 993 pages, illustrated Philadelphia, Lea & Febiger, 1947 Cloth, $12 50

This is the same dependable, comprehensive textbook brought up to date by inclusion of the latest concepts in respect to headaches and neuralgias, surgical treatment of otosclerosis (fenestration), and allergies

The revision of outstanding importance is the author's acknowledgment that nasal reconstruction (rhinoplasty) belongs naturally in the domain of the rhinologist

This volume will serve as standard reference for students, general practitioners, and specialists

HARRY MEYERSBURG

Colloid Science A Symposium. Contributors E K. Rideal, A E Alexander, D D Eley *et al* Octavo of 208 pages, illustrated Brooklyn, Chemical Publishing Co , 1947 Cloth, $6 00

This is a symposium of a study of the chemical, physical, and mechanical properties of colloid matter It includes the determination of the atomic and molecular structure, submicroscopic texture, and general shape of the more complex organic molecules which are of biologic importance, using x-ray analysis and optical measurements There is a study of macromolecules by means of the ultracentrifuge, electrophoresis, and diffusion It should be of aid in interpreting the phenomena encountered with matter in the form of films, membranes, and fibers

EDWARD H NIDISH

American Medical Research Past and Present. By Richard H Shryock, Ph D Octavo of 350 pages New York Commonwealth Fund, 1947 Cloth, $2 50

This is one of a number of monographs made possible by the Commonwealth Fund as the result of the study made by the Committee on Medicine and the Changing Order It covers in an exhaustive and readable manner the "story of medical research" from 1750 to the present day, with its trends, influences, sources of support, its impact on medical education, and its effect on society in general

BENJAMIN M BERNSTEIN

Modern Cosmeticology By Ralph G Harry Third edition Octavo of 515 pages, illustrated Brooklyn, Chemical Publishing Co , 1947 Cloth, $12

It was my real pleasure to review a former edition of this famous book for the NEW YORK STATE JOURNAL OF MEDICINE It is only now that I have been able to secure a copy for my own use No review, so limited as we are compelled to be for space, can begin to express one's appreciation of the vastness of its contents and the completeness of its technical information It is one book that every dermatologist and every cosmeticologist should have at hand for constant reference use

NATHAN THOMAS BEERS

Treatment of Some Chronic and "Incurable" Diseases By A T Todd, M D (Edin) Second edition Octavo of 324 pages Baltimore, Williams & Wilkins Co , 1947 Cloth, $7 00

This book has some good and some bad features, and the bad could be so misleading that the book cannot be recommended generally In the management of diabetes the author suggests that insulin is not always beneficial and may be harmful, for it puts the pancreas at rest and perpetuates the diabetic state Whenever possible, he adds, it should be discontinued as early as possible He also recommends the taking of synthalin by mouth

In his opinion, a hepatic defect is "central and dominant" in the cause of rheumatism He also recommends fluoride plus iodine in toxic goiter

ANDREW BABEY

Medicine Today The March of Medicine, 1946 The New York Academy of Medicine Lectures to the Laity New York, Columbia University Press, 1947 Cloth, $2 00

The doctor, as well as the lay reader, will find much to interest and edify him in this most recent symposium of the Academy's annual series It holds the mirror up to modern medicine in an enlightening, even though at times disturbing, way The order of things in medicine is changing and this small volume points up new directions *Reading it* makes one feel a bit like Christian in the *Pilgrim's Progress* as he faced successive challenges The question is, can we, too, reach the Delectable Moun-

[Continued on page 106]

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tains if we abandon individualism and loosen the patient-physician bond on the way?

ARTHUR C JACOBSON

Atlas of Bacteriology By R Cranston Low, M D, and T C Dodds Octavo of 168 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $8 50

The 167 colored illustrations are superb and very explanatory The *Atlas* can be highly recommended for students and laboratory technicians

NATHAN REIBSTEIN

Diabetes Mellitus in General Practice By Arthur R Colwell, M D Octavo of 350 pages, illustrated Chicago, Year Book Publishers, 1947 Cloth, $5 25

The outstanding virtue of this fine volume is the simplicity with which the problem of diet and the diabetic is presented The usual mysticism surrounding the diet prescription is torn aside The tables of substitutions and household equivalents are excellent

The author moves easily from one camp to the other in the current "cold war" regarding hyperglycemia, but, fortunately, so far as this reviewer is concerned, he rests himself periodically with those who know insulin shock to be a great hazard, rather than with those who unphysiologically condemn hyperglycemia

The discussion of the complications of diabetes is splendid

MAURICE TULIN

The Practical Nurse By Dorothy Deming, R N Octavo of 370 pages New York, Commonwealth Fund, 1947 Cloth, $3 00

This book gives substantial reasons for the renewed demand for the practical nurse today and in the days to come The author gives a clear insight into many problems relative to the entire nursing profession, including those of the professional nurse

The author did a thorough job by personally visiting many hospitals and industrial establishments where positions are being filled successfully by the practical nurse, alone as well as with her professional colleague

HARRY APFEL

Handbook on Fractures By Duncan Eve, Jr, M D, in collaboration with Trimble Sharber, M D Octavo of 263 pages, illustrated St Louis, C V Mosby Co, 1947 Cloth, $5 00

Handbook on Fractures is a valuable book for the resident surgeon and specialist, as it has a definite purpose in emphasizing the treatment of a specific entity It is the result of the author's extensive experience with procedures which have given him uniformly good results It does not go into discussion of controversial procedures It is concise but clear in its recommendations and should be valuable to the surgeon interested in fractures

IRWIN E SIRIS

The Medical Clinics of North America. Philadelphia Number November, 1947 Index 1945–1947 Octavo Philadelphia, W B Saunders Co, 1947 Published bi-monthly (6 numbers a year) Cloth, $16 net, paper, $12 net

This timely volume of *Clinics* presents a symposium on respiratory diseases including sinusitis, allergic rhinitis, and the various viral infections as well as a chapter on chemotherapy of tuberculosis

This volume is worth careful study

ANDREW BABEY

A Manual of Fractures and Dislocations By Barbara Bartlett Stimson, M D Second edition Duodecimo of 223 pages, illustrated Philadelphia, Lea & Febiger, 1947 Flexible cloth, $3 25

This excellent book is now in its second edition Although the subject is not covered exhaustively, methods of diagnosis and principles of treatment are clearly indicated

The material is presented under definite headings, which makes for ready understanding and easy readability The summary at the end of each discussion is of great value

The book is heartily recommended as a quick reference guide

MAYER E ROSS

Medicine in the Changing Order Report of the New York Academy of Medicine Committee on Medicine and the Changing Order, Malcolm Goodridge, M D, Chairman Octavo of 240 pages New York, Commonwealth Fund, 1947 Cloth, $2 00

In perusing this little volume one cannot help but be impressed with the authoritativeness of the source of all the information contained therein and the absolutely unbiased approach to every phase of this subject The vast amount of discussion in recent years among medical groups, as well as among the laity, as to the best method of providing adequate medical care to all the people is analyzed here in minute detail All interested in this important subject are urged to read this book, it has all the answers

It is gratifying to read some of its conclusions as to the best method to attain the desired goal—comprehensive medical service Here are some of them For optimal results, organization and cooperation of physicians is required Extensive education for both physicians and the public is another desirability In acknowledging government participation, the Committee strongly recommends a general method of grants-in-aid as the one that has stood the test of American experience

No physician can approach a serious discussion of voluntary and compulsory health insurance in all their phases without a thorough reading and understanding of this exceptionally well-written volume

S R BLATTEIS

A Textbook of Clinical Neurology With an Introduction to the History of Neurology By Israel S Wechsler, M D Sixth edition Octavo of 829 pages, illustrated Philadelphia, W B Saunders Co, 1947 Cloth, $8 50

This reviewer admits at the onset a favorable prejudice for this product of Israel Wechsler's pen This book is a real clinical neurology, well rounded in scope with no undue emphasis on a writer's hobby As an able clinician, he naturally stresses the careful taking of a history and the importance of examining the patient, so often neglected by "arm chair" psychiatrists

The author was the first to introduce in a textbook of neurology a description of the psychometric examination, an evaluation of trauma to the nervous system, and an introduction to the history of neurology In his clinical approach there is no neglect of the psychosomatic aspect ably presented in a clear practical discussion of the neuroses Like Osler, Dr Wechsler is a master of the pithy phrase, a characteristic which enables him to describe clearly rare clinical entries For the medical student there is

[Continued on page 108]



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[Continued from page 106]

no better textbook To the neurologist or general practitioner it will prove a welcome new edition

HAROLD R MERWARTH

A Study of Individual Children's Diets By E M Widdowson Octavo of 196 pages, illustrated London, His Majesty's Stationery Office, 1947 Board, 6/

The book covers a four-year study in nutrition of over 1,000 British children of ages from one to eighteen years Some 30,000 individual meals are tabulated and analyzed The study shows some children doing better than average in point of development without any milk in their menus Calorie requirements are based on weight and height rather than on age, similar to the old "NEM" method of Pirquet Some feeding trends of former years are mentioned when children were given beer, and cheese was strenuously forbidden as dangerous

HARRY APFEL

New Fields of Psychiatry By David M Levy, M D Octavo of 171 pages New York, W W Norton & Co, 1947 Cloth, $2 75

Dr Levy, in this book, enlarges on the material which he gave in the Salmon Lectures, describing the application of principles and knowledge derived from psychiatry as applied to the practical problems of criminology, social work, education, military service, and political indoctrination The volume is well documented, with references to work in these various disciplines, and is rendered dynamic by the author's personal experience as he watched and contributed to the development of these fields of thought

EDWARD F FALSEY

Uterotubal Insufflation A Clinical Diagnostic Method of Determining the Tubal Factor in Sterility Including Therapeutic Aspects and Comparative Notes on Hysterosalpingography By I C Rubin, M D Octavo of 453 pages, illustrated St Louis, C V Mosby Co, 1947 Cloth, $10

This book merits a position as one of the most important contributions to our present knowledge in the study of infertility There has been no other single procedure in the investigation of the problem of sterility that has in itself been as conclusive in ascertaining a particular factor as the uterotubal insufflation of gas This epochal procedure was first brought to our attention by the author in 1919

Dr Rubin has critically searched and reviewed the literature, avoiding the speculative and controversial, digested it, and handed it back to the reader in an assimilable form He has maintained the clinical viewpoint of the application of the uterotubal insufflation throughout his text and has correlated this with both the physiology and pathology of the fallopian tubes He augments this with many illustrative and concise case histories, as well as graphs and drawings, the latter being beautifully reproduced

This book is recommended as a valuable addition to the library of those interested in the problem of human infertility and will no doubt become one of the standard practical reference works on the subject.

SAMUEL L SIEGLER

English-Spanish Chemical and Medical Dictionary Comprising Terms Employed in Medicine, Surgery, Dentistry, Veterinary, Biochemistry, Biology, Pharmacy, Allied Sciences, and Related Scientific Equipment. By Morris Goldberg Octavo of 692 pages New York, McGraw-Hill Book Co 1947 Cloth, $10

This dictionary gives the Spanish equivalents of some 40,000 English words used in medicine and in physical and biologic science, together with brief explanations, in simple nontechnical language, of the meanings It is complete and includes all the recent chemotherapeutic and antibiotic terms A bibliography is appended

DENNIS RYAN GILLEN

The 1947 Year Book of General Medicine Edited by George F Dick, M D, J Burns Amberson, M D, George R Minot, M D, *et al* Duodecimo of 784 pages, illustrated Chicago, Year Book Publishers, 1947 Cloth, $3 75

This familiar perennial continues to deserve a position of favor in the physician's library The abstracts are done with skill by Dick, Amberson, Minot, Castle, Stroud, and Eusterman As usual, the editorial comments enhance the value of the abstracts The "Year Book Quiz" on the book jacket is a unique feature which will intrigue everyone

MILTON PLOTZ

Synopsis of Neuropsychiatry By Lowell S Selling, M D Second edition Duodecimo of 561 pages, illustrated St Louis, C V Mosby Co, 1947 Cloth, $6 50

This manual is the second edition of a book that has been intended to serve as a simplified and standardized guide in neuropsychiatry It covers the field of neurology and psychiatry amply and well In all, there are 28 chapters ranging from basic anatomic principles to mental deficiency It is not intended as a textbook, but simply as a broad outline in the field of neuropsychiatry

It is recommended for all who are interested in this field of medicine

IRVING J SANDS

What to Do Until the Psychiatrist Comes. By Norman Anthony Octavo of 150 pages, illustrated New York, Duell, Sloan & Pearce, 1947 Cloth, $2 50

This book is a collection of nonsensical clichés and definitions supposed to supply the demand for a "five-cent psychiatry" It is contended on the jacket that unless a man's "got bats in the upper brackets," he can't afford psychiatric treatment There are a few pertinent observations and drawings, some humorous, some ludicrous The fun, however, is rather thinned out by the 150 pages

JOSEPH RAPHAEL

Aphasia A Guide to Retraining By Capt Louis Garnich, MC, USA Appendix in collaboration with Sgt George W Pangle, MC, USA 108 pages New York, Grune & Stratton, 1947 Cloth, $2 75

The author served as a school psychologist for the Board of Education of the City of New York, specializing in problems of educational disability During the late War he served in the remedial language department, as the aphasic training unit was called, which was a part of the neurology section of the Thomas M England General Hospital, in Atlantic City They had a wealth of material and the results that they obtained were quite satisfactory

The book is based upon these experiences, is well formulated, and methods of rehabilitation are outlined It is a valuable little book that would be extremely useful to all who are interested in speech disorders, particularly in cases of aphasia resulting from cerebral vascular disorders or following brain injuries

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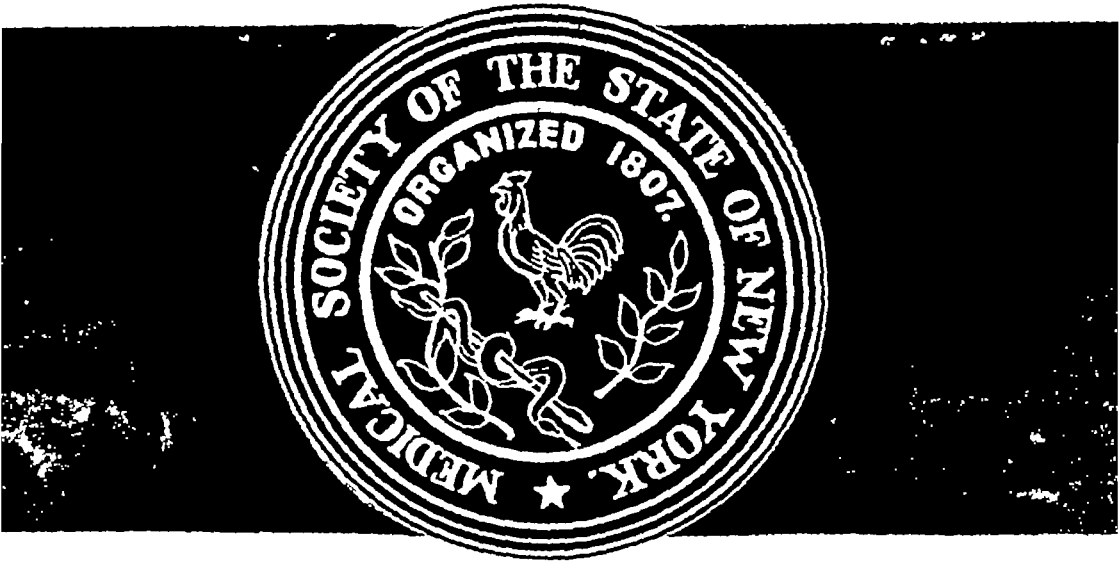
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February 1, 1949

Scientific Articles

Value of Supplementary Protein Feeding in Aged and Chronically Infected Orthopedic Patients

Dexedrine and Weight Reduction

Conferences on Therapy Treatment of Cardiovascular Syphilis

Editorials

Competition in Publicity

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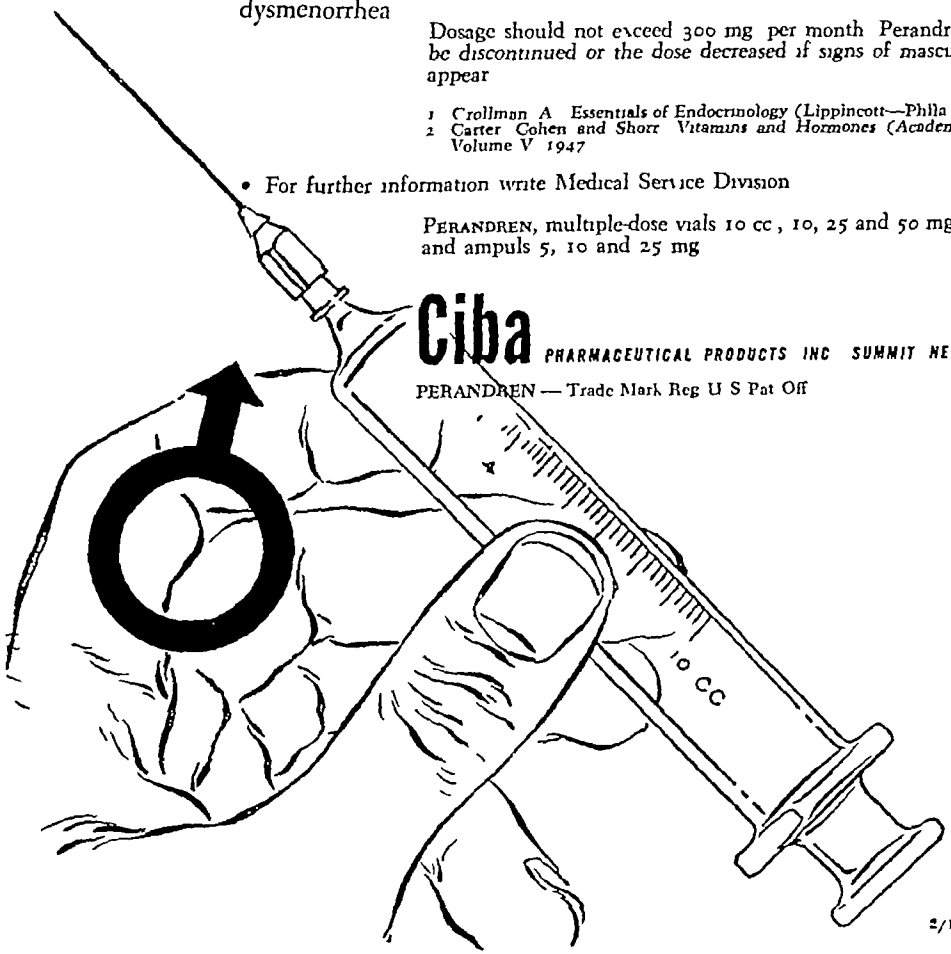
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1 Ayman David and Goldshine Archie D.: *Arch Int Med.*, 63:899 May 1939
2. Feldt Robert H., and Wenstrand, D E. W.: *Arch. Int Med.*, 67:1157 June 1941

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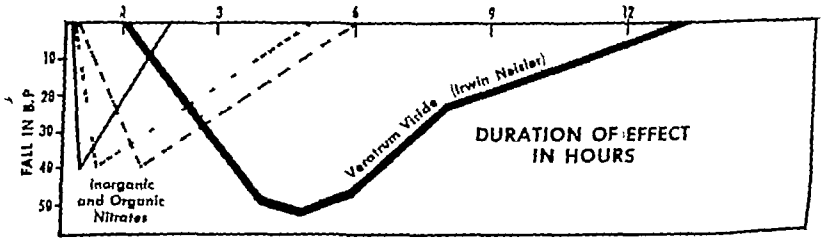
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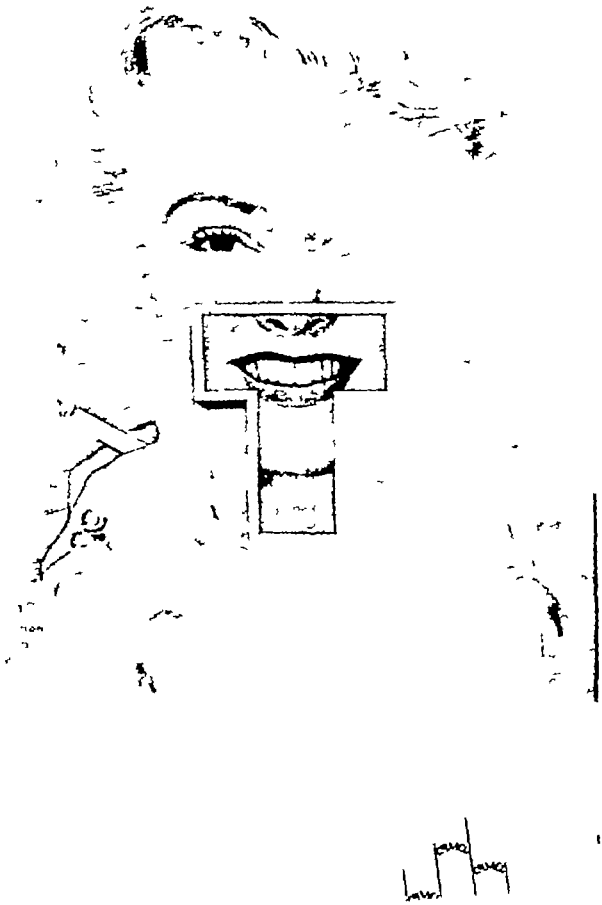
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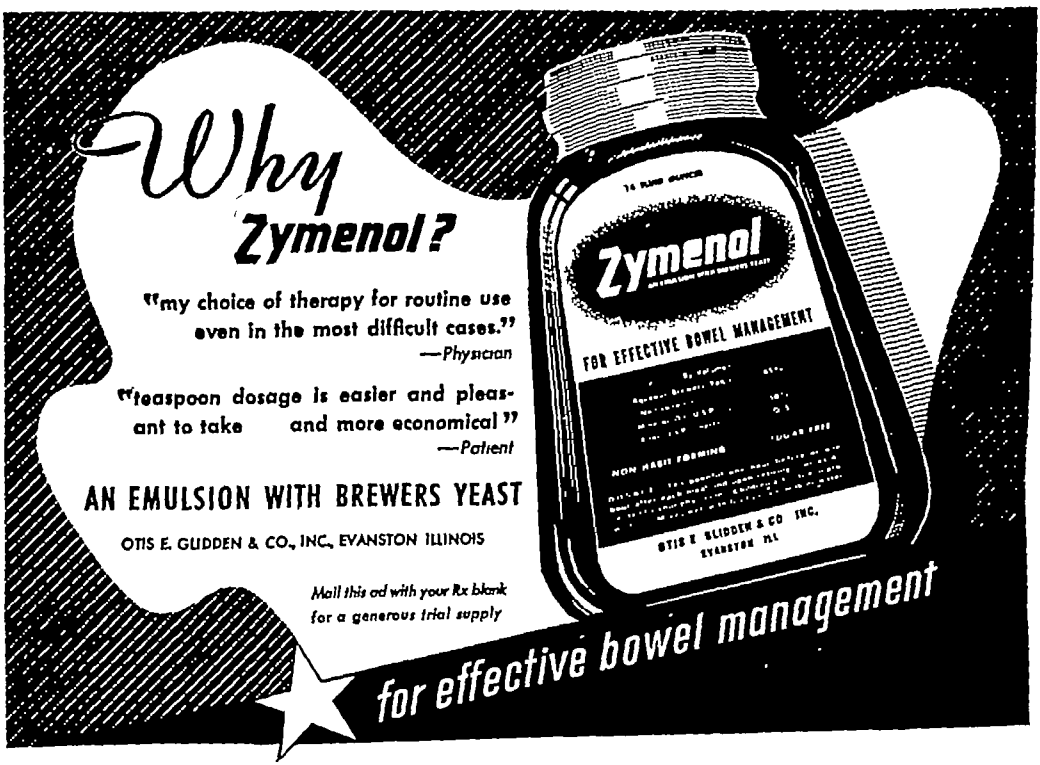
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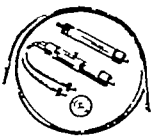
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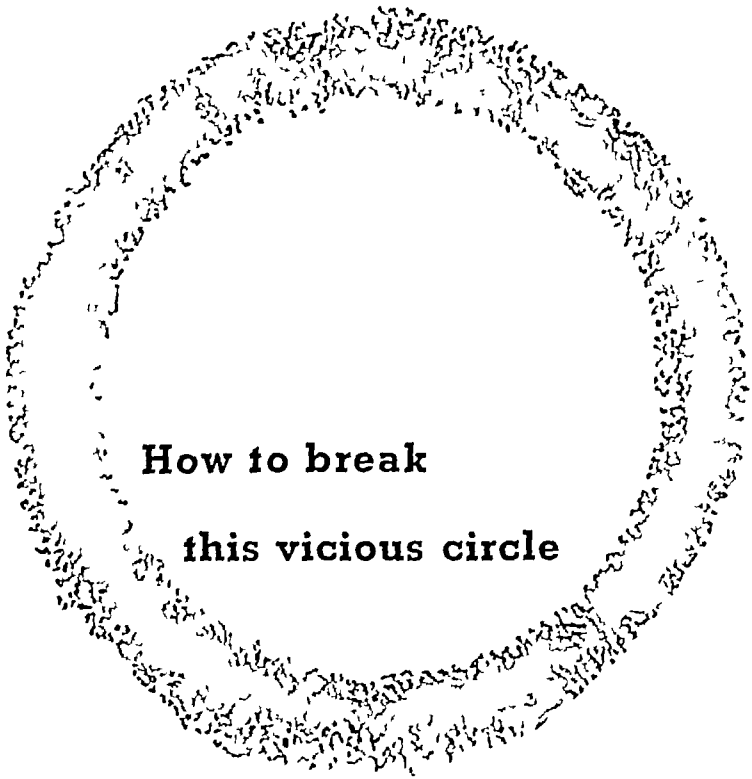
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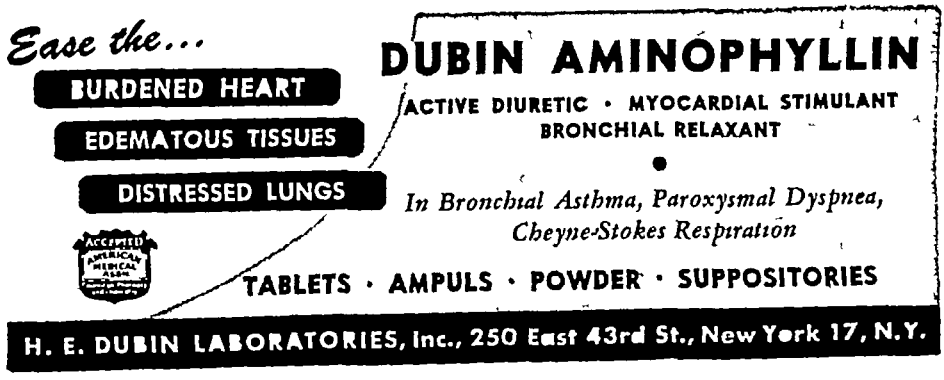
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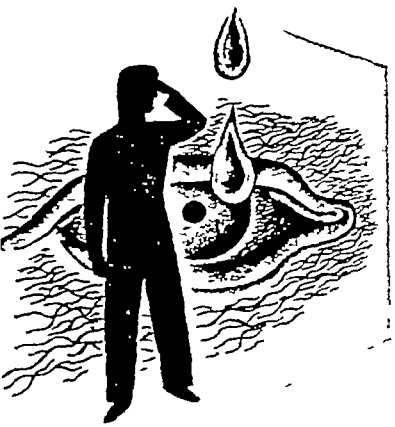
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Richard A. Leonardo, *Chairman*	Rochester
George Rosen, *Vice-Chairman*	New York

PHYSICAL MEDICINE

George F Bock, *Chairman*	Watertown
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Metrazol *Council Accepted*

Powerful, Quick Acting Central Stimulant

ORALLY - for respiratory and circulatory support
BY INJECTION - in the emergency

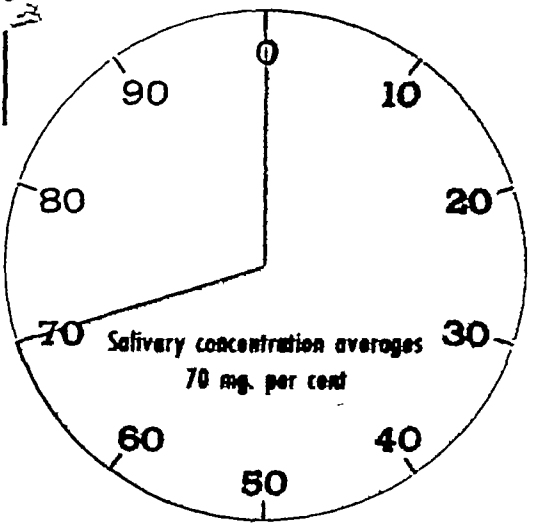
AMPULES - 1 and 3 cc. (each cc. contains 1½ grains)
TABLETS - 1½ grains
ORAL SOLUTION - (1½ grains per cc.)

Metrazol brand of pentamethylentetrazol Trade Mark reg U S Pat. Off

BILHUBER-KNOLL CORP ORANGE, NEW JERSEY

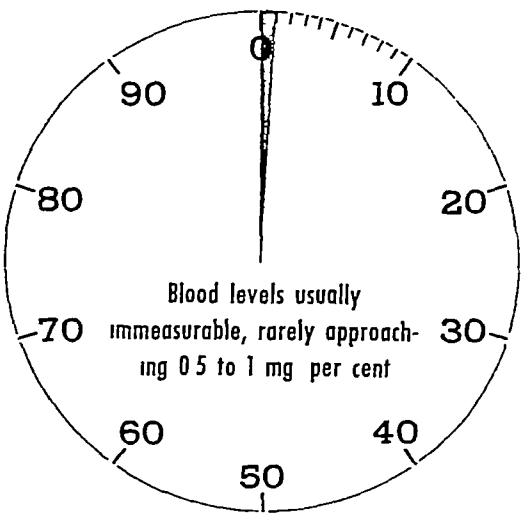


Oropharyngeal Chemotherapy



A single tablet of White's Sulfathiazole Gum chewed for one hour maintains an average *salivary* drug concentration of 70 mg per cent, the gum vehicle serving as a reservoir for the drug Local absorption into pharyngeal submucosa is strikingly illustrated by orange-stained sulfonamide material illustrated in tonsillar tissue section above

without systemic side-effects



No systemic toxicity has been reported Following even maximal dosage, blood levels are usually immeasurable, rarely approaching 0 5 to 1 mg per cent

Groups of patients have received Sulfathiazole Gum routinely for six months[1] and fourteen months[2] "without a reaction indicating sulfathiazole sensitization or other untoward reaction"

Supplied in convenient packages of 24 tablets—3¾ grs (0 25 Gm) per tablet —sanitaped, in slip-sleeve prescription boxes

1 Neiman I.S The Use of a Gum Containing Sulfathiazole to Prevent Infectious Pharyngitis Arch Otolaryngol (in press)

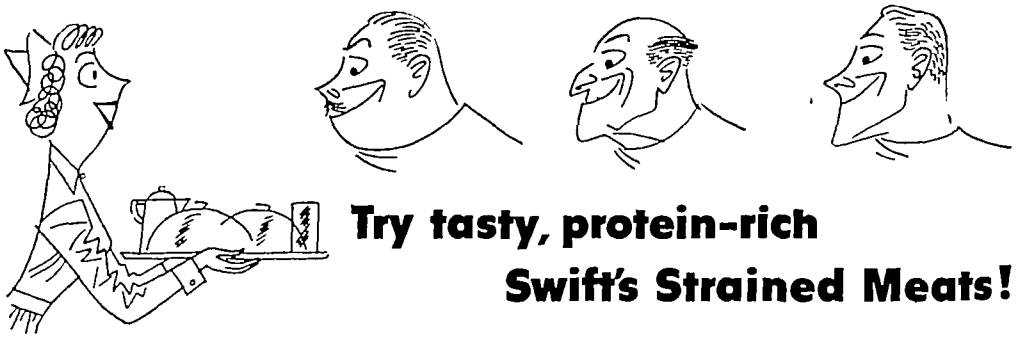
2 Fox, N Kesel, R.G : Hyperplastic Sinopharyngostomatitis Arch Otolaryngol 42:368 (1945)

White's SULFATHIAZOLE GUM

WHITE LABORATORIES, INC , Pharmaceutical Manufacturers, Newark 7, N J



Patients turning up their "no's" at soft diets?



Try tasty, protein-rich Swift's Strained Meats!

A palatable, natural source of complete, high-quality proteins

It's not surprising that soft-diet patients develop appetite-apathy The things they have to eat!

To help overcome this anorexia many doctors now recommend Swift's Strained Meats Delicious, *real* meat that patients on soft, smooth diets can eat and *enjoy* Swift's Strained Meats provide an excellent base for a high-protein, low-residue diet Rich in iron, they're chemically and physically non irritating They make *all* the essential amino acids available *simultaneously* for optimum protein synthesis

Swift's Strained Meats are tasty enough to tempt tired appetites They supply goodly amounts of B vitamin to help stimulate patients' natural appetite for other foods Swift's Strained Meats are 100% meat—a variety of six kinds beef, lamb, pork, veal, liver, heart Originally prepared for infant feeding, they're exceptionally fine in texture—may easily be used in tube feeding Convenient—ready to heat and serve



6 varieties
Beef, lamb, pork
veal, liver heart



For patients who can take foods of less fine consistency—Swift's Diced Meats offer tender morsels of nutritious meats with tempting flavors patients appreciate

The makers of Swift's Strained Meats invite you to send for your copy of The Importance of Protein Foods in Health and Disease —a physicians handbook of protein feeding, written by a doctor Send to

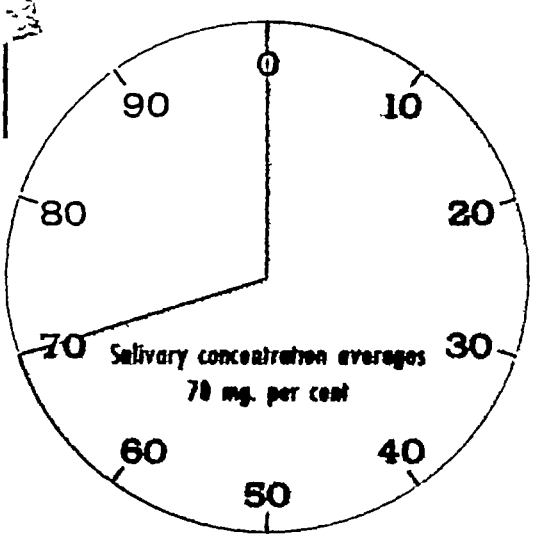
SWIFT & COMPANY

Chicago 9 Illinois

All nutritional statements made in this advertisement are accepted by the Council on Foods and Nutrition of the American Medical Association.

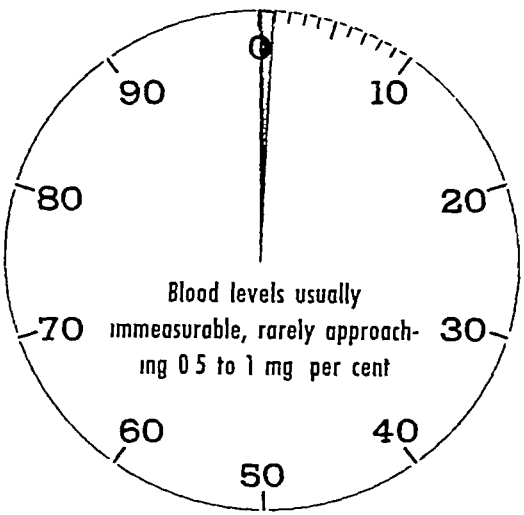


Oropharyngeal Chemotherapy



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Supplied in convenient packages of 24 tablets—3¾ grs (0 25 Gm) per tablet —sanitaped, in slip-sleeve prescription boxes

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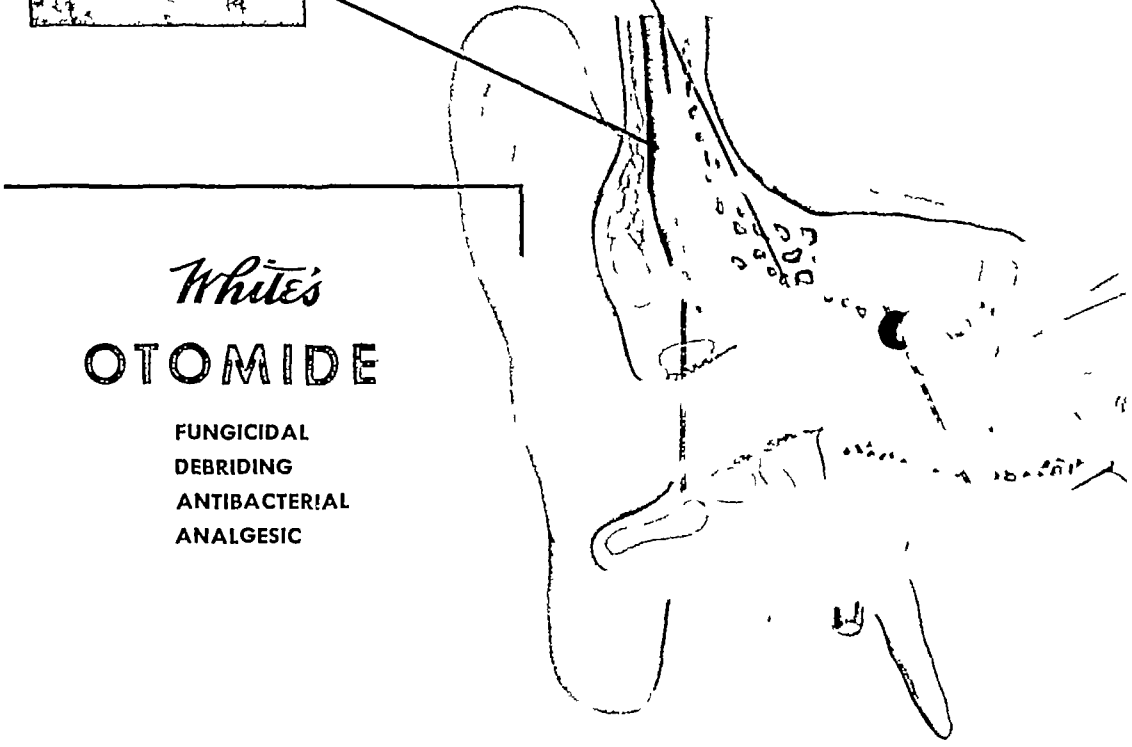
White's SULFATHIAZOLE GUM

WHITE LABORATORIES, INC , Pharmaceutical Manufacturers, Newark 7, N J

Effective Topical Chemotherapy

For Both Acute and Chronic Infections of the

MIDDLE and EXTERNAL ear



White's

OTOMIDE

FUNGICIDAL
DEBRIDING
ANTIBACTERIAL
ANALGESIC

Practically all infections of the middle and external ear respond to local therapy with White's Otomide—a logical combination of therapeutic ingredients Its sulfanilamide content actively attacks both gram positive and gram negative bacteria and effectively combats fungi which commonly infect the external ear Added urea (carbamide) increases local tissue diffusion and concentration of the sulfanilamide, cleans and debrides infected areas, reduces objectionable odors Chlorobutanol is included for its analgesic and antipruritic properties

Formula

Sulfanilamide

Urea (Carbamide)

Chlorobutanol (Anhydrous)

Glycerin of unusually high hygroscopic activity

Supplied in dropper bottles of ½ fluid ou (15 cc) White Laboratories, Inc , Pharmaceutical Manufacturers, Newark 7, N J

White's | **OTOMIDE**

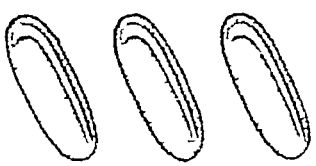


To solve her problem...

ONE *Iberol tablet t.i.d.* IS ENOUGH

In only three tablets a day, IBEROL provides the important blood building and nutritional substances needed by many patients with secondary anemias. This dosage of IBEROL represents the accepted standard for a hematinic, plus generous amounts of folic acid, other B vitamins and ascorbic acid. ● For all their potency, IBEROL tablets are moderate in size—achieved by using the ferrous sulfate itself as one of two subcoatings. An outer sugar coating covers the liver odor and iron taste to make a tablet that is pleasant to take. The capsule shape makes it easy to swallow. This convenient, concentrated dosage form is comparatively economical for the patient. ● IBEROL may also be used prophylactically in pregnancy, convalescence, and other conditions predisposing to anemia. In pernicious anemia, it should be used only as a supplement to liver extract. IBEROL is available now in bottles of 100, 500 and 1000 sugar coated tablets.

ABBOTT LABORATORIES, North Chicago, Illinois



three IBEROL tablets, the average daily dose for adults, **supply:**

FERROUS SULFATE, U.S.P. (representing 210 mg. elemental iron the active ingredient for the increase of hemoglobin in the treatment of iron-deficiency anemia.)	1.05 Gm

plus these nutritional constituents

Folic Acid	5.1 mg
Thiamine Hydrochloride	6 mg (6 x MDR*)
Riboflavin	6 mg (3 x MDR*)
Nicotinamide	30 mg (1½ x RDA†)
Ascorbic Acid	150 mg (5 x MDR*)
Pyridoxine Hydrochloride	3 mg
Pantothenic Acid (as Calcium Pantothenate)	6 mg.
Liver Fraction (boiling water extract)	1.5 Gm

*Minimum Daily Requirement.
†Recommended Daily Dietary Allowance.

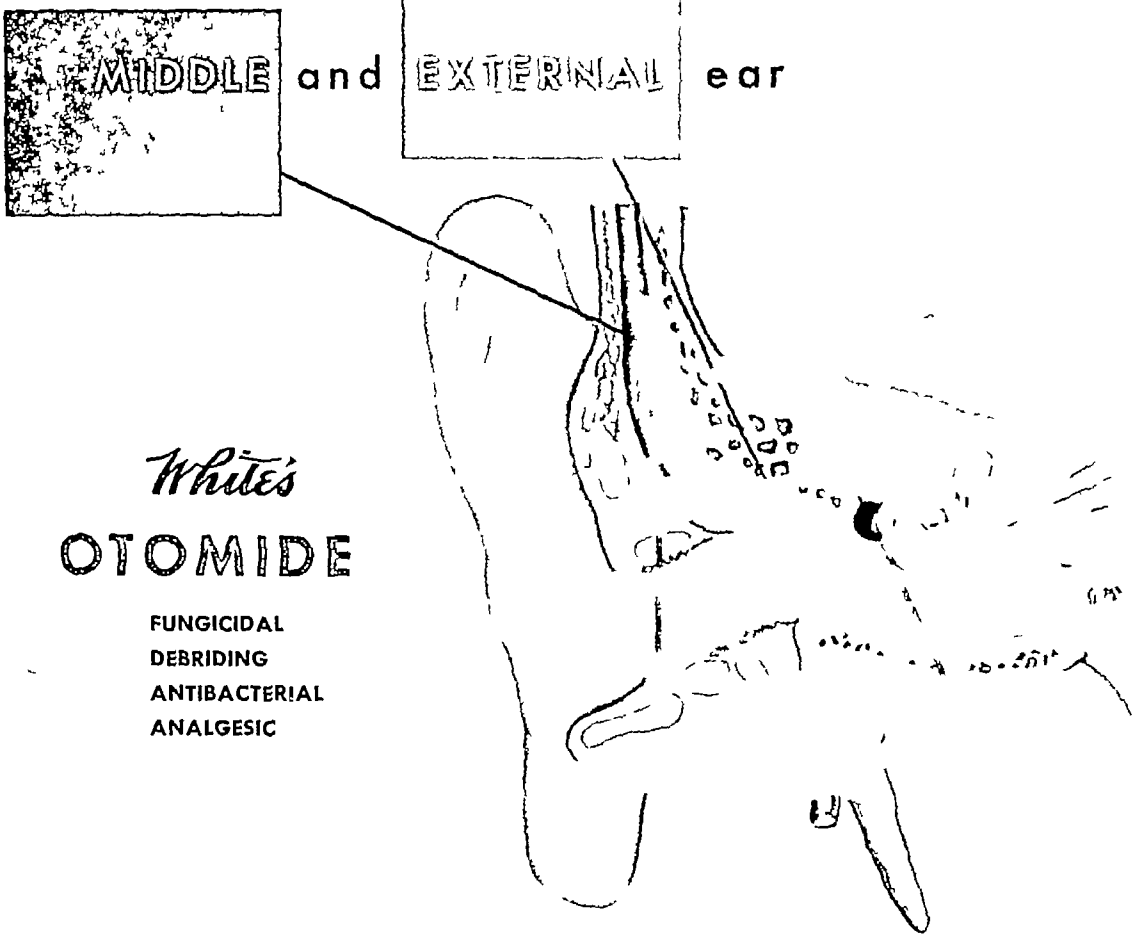
Iberol
TRADE MARK

(IRON • VITAMIN B COMPLEX • FOLIC ACID • LIVER FRACTION ABBOTT)

Effective Topical Chemotherapy

For Both Acute and Chronic Infections of the

MIDDLE and EXTERNAL ear



White's

OTOMIDE

FUNGICIDAL
DEBRIDING
ANTIBACTERIAL
ANALGESIC

Practically all infections of the middle and external ear respond to local therapy with White's Otomide—a logical combination of therapeutic ingredients Its sulfanilamide content actively attacks both gram positive and gram negative bacteria and effectively combats fungi which commonly infect the external ear Added urea (carbamide) increases local tissue diffusion and concentration of the sulfanilamide, cleans and debrides infected areas, reduces objectionable odors Chlorobutanol is included for its analgesic and antipruritic properties

Formula	w/v
Sulfanilamide	5%
Urea (Carbamide)	10%
Chlorobutanol (Anhydrous)	3%
Glycerin of unusually high hygroscopic activity	q.s

Supplied in dropper bottles of ½ fluid ounce (15 cc) White Laboratories, Inc, Pharmaceutical Manufacturers, Newark 7, N J

White's | **OTOMIDE**

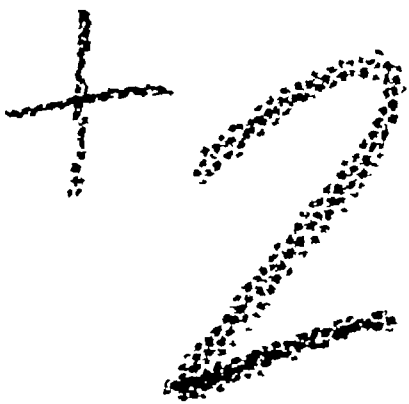
This penicillin-vasoconstrictor combination provides—



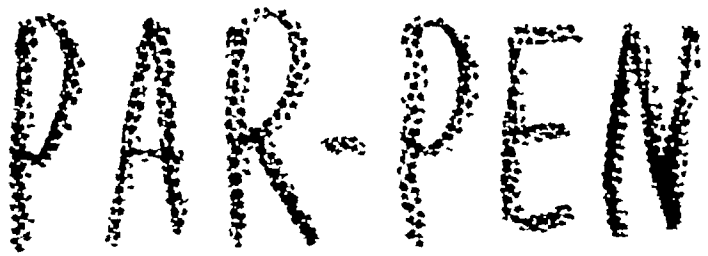
rapid and prolonged shrinkage

Par-Pen contains 'Paredrine Aqueous'—
one of only two proprietary aqueous
vasoconstrictors favorably noted
in a report issued for the information
of the Mayo Clinic Staff

potent antibacterial action



Par-Pen contains sodium crystalline
penicillin, now recognized as the
most desirable form of this potent drug
An important advantage of this new form
of penicillin is its superior stability
Your patient need not refrigerate Par-Pen
Even after a week at room temperature,
Par-Pen will contain 500 units of
penicillin per cc —the accepted
strength for local use For samples and
full information, write Par-Pen on your
prescription blank and mail it to us at
1530 Spring Garden St , Philadelphia 1, Pa



for
intranasal
use

Smith, Kline & French Laboratories, Philadelphia

BURO-SOL POWDER

Readily soluble in water

Buro-sol Solution is therapeutically equivalant to Burows Solution (Liq Al Acet)

The powder is a convenient method of preparing a solution when needed

Compresses saturated in Buro sol Solution prevent a sudden change in the pH value of the skin and will neutralize alkalinity

Applied on inflamed surfaces, weeping eczema, the inflammatory process will be mitigated

DOAK CO., INC.

Cleveland, Ohio

NY 2-49

For Rapid Response

In HYPOCHROMIC ANEMIAS!

FERROLIVRON B

(INJECTABLE)



- Effective therapy for hypochromic anemia usually requires more than iron administration alone The balanced, rational formula of Ferrolivron B, not only provides readily available iron but also generous quantities of essential B complex vitamins, plus fresh liver (as liver concentrate)
- Each 2 cc of Ferrolivron B contains:

Liver Extract	100 mgm (10 USP Units—injectable)
Colloidal Iron Hydroxide	19.1 mgm
Niacinamide	50 mgm.
Pyridoxine Hydrochloride	0.3 mgm.
Riboflavin	0.3 mgm
Phenol	0.5%
Sodium Citrate	1%

For Intramuscular use

Supplied in 30 cc Vials

Write for literature

HARMON CHEMICALS, Inc. BROOKLYN 16, NEW YORK

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Dietary Foods

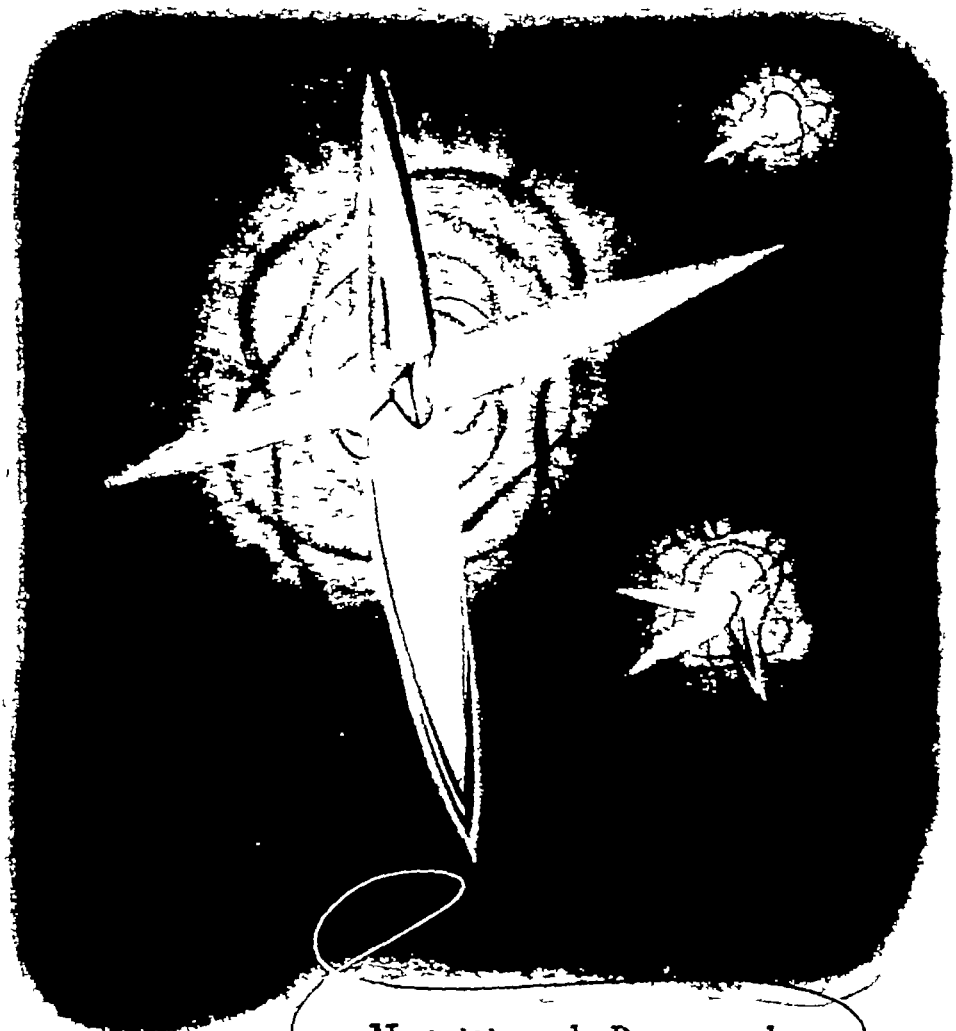
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CRYSTALS OF
FOLIC ACID

Nutritional Research

During the past several years, Lederle has made a very substantial investment in time and money for the investigation of nutritional deficiency states The vast majority of such investigations lead down dead-end streets, but occasionally—and most fortunately for mankind—a brilliant result is achieved One of the fields in which these efforts have proven, and are proving, successful is the field of nutritional macrocytic anemias. The first step in the conquest of this field was the perfection of a practicable intramuscular liver extract by Lederle several decades ago More recently, the Lederle-Cyanamid research team isolated and synthesized folic acid, which has been proven specific for the macrocytic anemias of sprue, infancy and childhood, pregnancy, gastrointestinal dysfunction, and pellagra. We are close to a solution of many other similar nutritional problems FOLVITE* Folic Acid *Lederle*, in various forms, is available for prescription use.

*REG. U. S. PAT. OFF.

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY
30 ROCKEFELLER PLAZA NEW YORK 20 N. Y.

An interesting new development in inunction therapy

Because of the constant demand for an external preparation that can be safely used as a "home remedy," we have developed Antiphlogistine Rub A-535

Rub A-535 is intended for the symptomatic relief of those conditions for which external analgesics and counter-irritants are commonly used Rub A-535 contains a combination of analgesics with a high percentage of methyl-salicylate in a new type of greaseless, stainless, vanishing base, which permits ease of application and almost instant utilization of the medications

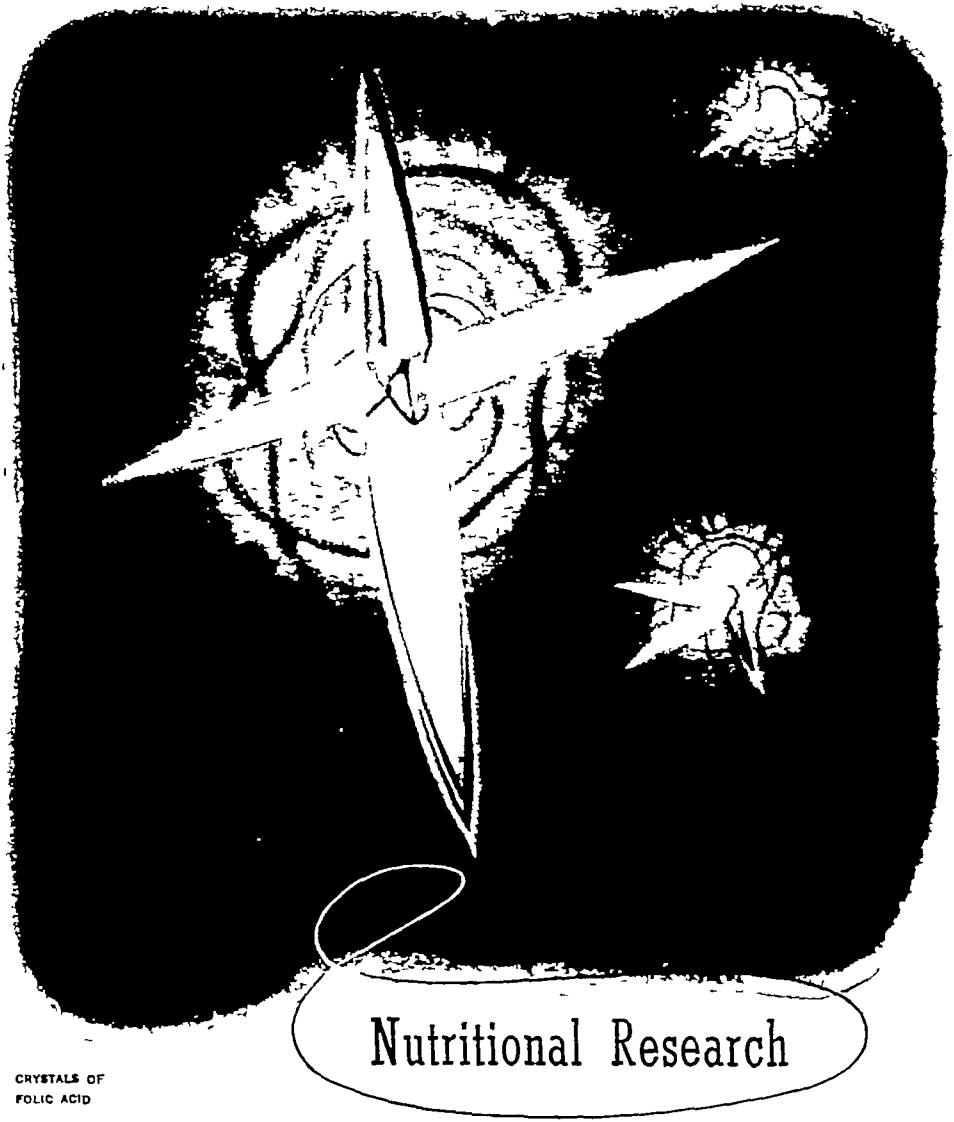
Because home remedies are used generally, we believe the manufacturer has a dual responsibility He must offer only such products which may safely be used in the average household and must inform the medical profession of the products' ingredients and action

The formula of Rub A-535 is

Methyl-Salicylate	12%
Oil of Eucalyptus	½%
Menthol	1%
Camphor	1%
Base (specially prepared)	85½%

Antiphlogistine Rub A-535 has been thoroughly tested both clinically and in over 6,000 homes If you would like a tube of Rub A-535, just drop us a line

THE DENVER CHEMICAL MANUFACTURING COMPANY, Inc
163 Varick Street New York 13, N Y.



Nutritional Research

CRYSTALS OF
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*REG U S PAT OFF

LEDERLE LABORATORIES DIVISION AMERICAN Cyanamid COMPANY 30 ROCKEFELLER PLAZA NEW YORK 20 N Y



when **night cough**

produces *insomnia*

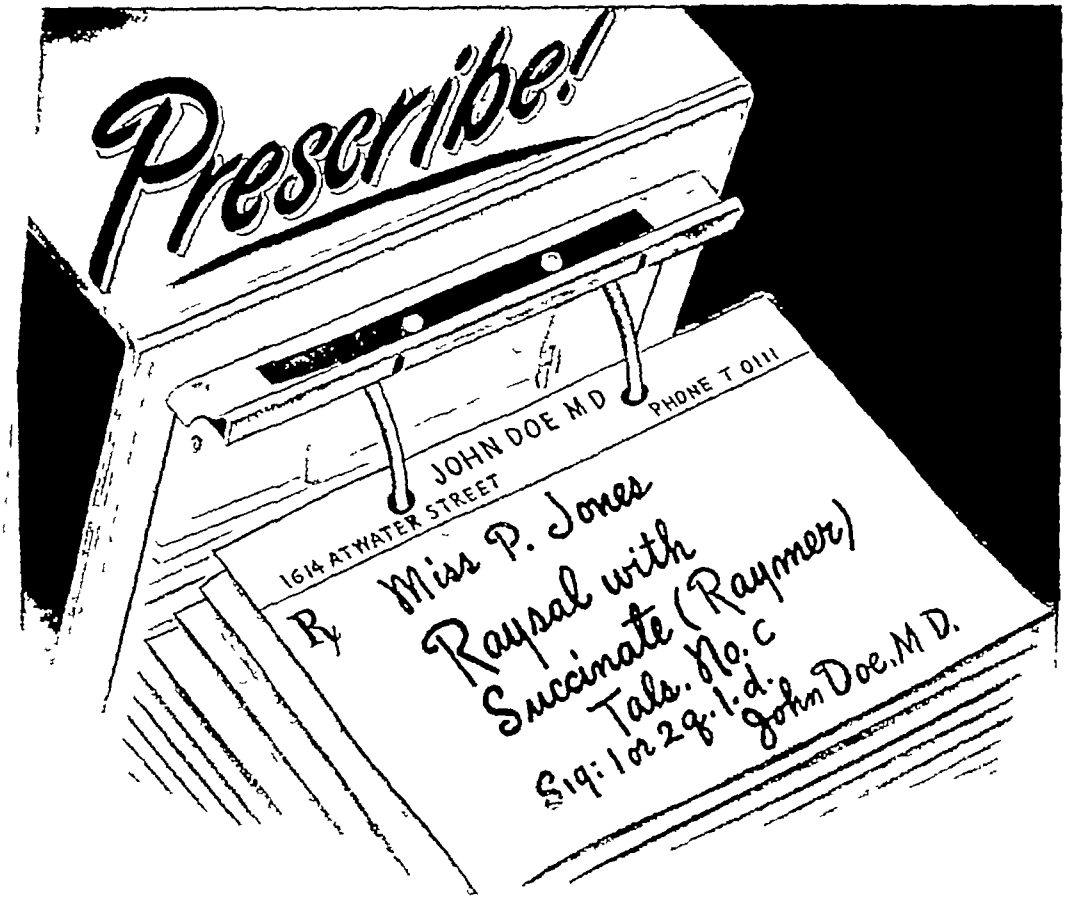
Syrup Sedulon, a new, non narcotic cough preparation, usually controls "night cough" which robs the patient of needed sleep Syrup Sedulon, given in therapeutic doses, seems to act specifically on the cough reflex without interfering with heart rate or respiration Because of its mild sedative effect, the patient sleeps well, and next day experiences no after effects Sedulon, the unique active ingredient, has a wide margin of safety, is well tolerated, and remarkably effective even in persistent "night cough "

HOFFMANN LA ROCHE INC. • NUTLEY 10 • N J.

syrup **Sedulon®**

Each teaspoonful (4cc) contains 60 mg of Sedulon (3,3-diethyl 2 4-dioxo-piperidine)

'Roche'



for the Treatment of

ARTHRITIS and RHEUMATISM

RAYSAL WITH SUCCINATE The *ethical* salicylate-succinate formula Employs three principal ingredients—salicylate, iodine and succinate designed to combine the almost specific antiarthritic and antirheumatic action of the salicylates the stimulating and nutritionally corrective effects of iodine and the salicylate detoxifying action of succinic acid

An ideal companion medication for other therapeutic measures employed in arthritis and rheumatism RAYSAL WITH SUCCINATE will enhance the efficiency of RAYFORMOSIL a safe and effective combination for use in your next case Sample and literature will be sent upon request

The Detoxified Salicylate Medicament

ENTERIC COATED TABLETS (SALOL)

Raysal	5 grains
(Representing 43% Salicylic Acid and 3% Iodine in Calcium Sodium Phosphate Buffer Salt Combination)	
Succinic Acid	2 grains

Available for office use and at your pharmacy on prescription

RAYMER

PHARMACAL COMPANY • PHILADELPHIA 34, PA

PHARMACEUTICAL MANUFACTURERS

Over a Quarter Century Serving Physicians



when **night cough**

produces insomnia

Syrup Sedulon, a new, non narcotic cough preparation, usually controls "night cough" which robs the patient of needed sleep Syrup Sedulon, given in therapeutic doses, seems to act specifically on the cough reflex without interfering with heart rate or respiration Because of its mild sedative effect, the patient sleeps well, and next day experiences no after-effects Sedulon, the unique active ingredient, has a wide margin of safety, is well tolerated, and remarkably effective even in persistent "night cough"

HOFFMANN LA ROCHE INC. NUTLEY 10 • N J

syrup **Sedulon®**

Each teaspoonful (4cc) contains 60 mg of Sedulon (3,3-diethyl-2 4-dioxo-piperidine)

'Roche'



"I like my medicine!"



Now... two delicious S.K.F. sulfonamide preparations:

These pleasant-tasting preparations may be prescribed wherever oral dosage of the sulfonamides is indicated

new!.. Eskadiamer

a *combination* fluid sulfonamide containing equal parts of sulfamerazine and sulfadiazine—the two safest sulfonamides in general use Each 5 cc (one teaspoonful) contains 0 25 Gm (3 86 gr) sulfamerazine and 0 25 Gm (3 86 gr) sulfadiazine

Eskadiazine

the widely prescribed fluid sulfadiazine which provides desired serum levels much more rapidly than sulfadiazine in tablet form Each 5 cc (one teaspoonful) contains 0.5 Gm (7 ¯ gr) sulfadiazine

Smith, Kline & French Laboratories Philadelphia

Eskadiamer & Eskadiazine T.M. Reg. U.S. Pat. Off

"RESULTS HAVE BEEN SO GRATIFYING . . . *that there appears to be little occasion for change.*"[1]

This is the opinion shared by many clinicians who have used INTRADERM* TYROTHRICIN in stubborn cases of acne vulgaris, sycosis vulgaris, furunculosis, impetigo, and other pyogenic skin infections

INTRADERM TYROTHRICIN presents tyrothricin, most powerful antibiotic for local use, in a unique skin penetrant vehicle permitting rapid diffusion of the medication throughout the affected area

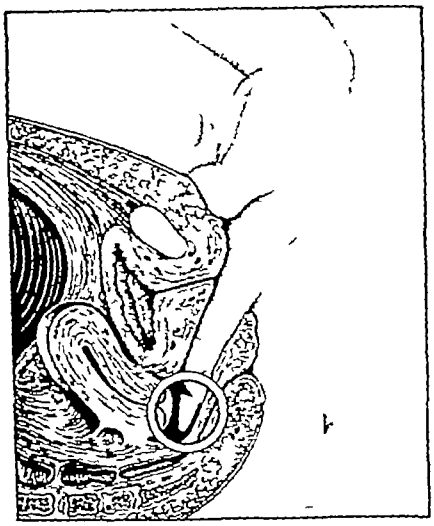
ADVANTAGES Rapid and sustained antibacterial effect Non irritating to skin Active even in presence of pus, serum, and exudates Does not give rise to drug fast strains Leaves no unsightly film, making it most acceptable to patient

1 Grinnell E. Journal Lancet 68 121 (Apr.) 1948.
*The word INTRADERM is a registered trademark of Wallace Laboratories, Inc

INTRADERM TYROTHRICIN
Reg. U. S. Pat. Off.

SUPPLIED: 120-cc. bottles containing 1 mg. of tyrothricin per cc.

WALLACE LABORATORIES, INC.
53 Park Place New York 8, N Y



PELVICINS simplify the problem of introducing high concentrations of penicillin directly at the site of vaginal infection, achieving optimal efficacy of the drug in cervicitis and other gynecologic conditions[1] *PELVICINS* provide 100,000 units of crystalline penicillin G (potassium salt) in each suppository Even where primary pathogens are not penicillin-sensitive, *PELVICINS* are of proved value in the elimination of susceptible secondary invaders, thereby enhancing the effectiveness of such additional medical or surgical measures as may be indicated *PELVICINS* are supplied in boxes of 6 and 12, individually wrapped in aluminum foil

Extra **Protective** *Feature*



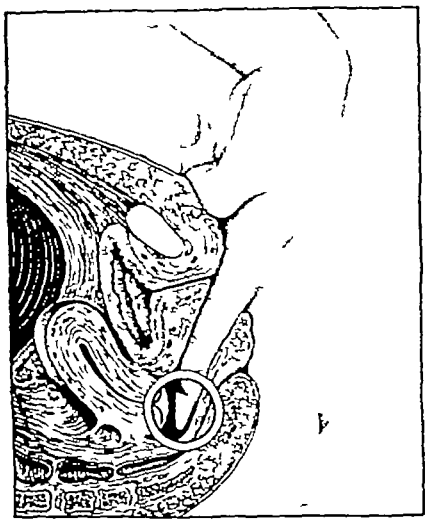
Additional protection against moisture is provided by a special wax coating on the package itself

1 Walter, R I, Goldberger, M A, and Lapid, L S New York State J Med 48 1159 (May 15) 1948

Schenley LABORATORIES, INC

350 FIFTH AVENUE, NEW YORK 1, N Y


HABIT
TIME
ONE PINT
PKG 1896
Wyeth
Petrogalar®
Aqueous Suspension
of Mineral Oil
Plain
Active
Ingredient:
Mineral Oil 65%
DIRECTIONS: Adults, one tablespoonful. Children over six years old, one teaspoonful. May be thinned with water, milk or fruit juice if desired.
CAUTION. To be taken only at bedtime. Do not use at any other time or administer to infants, except upon the advice of a physician.
SHAKE WELL
Wyeth INCORPORATED - PHILADELPHIA - PA
1376374
Wyeth



PELVICINS simplify the problem of introducing high concentrations of penicillin directly at the site of vaginal infection, achieving optimal efficacy of the drug in cervicitis and other gynecologic conditions[1] *PELVICINS* provide 100,000 units of crystalline penicillin G (potassium salt) in each suppository Even where primary pathogens are not penicillin-sensitive, *PELVICINS* are of proved value in the elimination of susceptible secondary invaders, thereby enhancing the effectiveness of such additional medical or surgical measures as may be indicated *PELVICINS* are supplied in boxes of 6 and 12, individually wrapped in aluminum foil

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1 Walter, R I, Goldberger, M A and Lapid, L S New York State J Med 48 1159 (May 15) 1948

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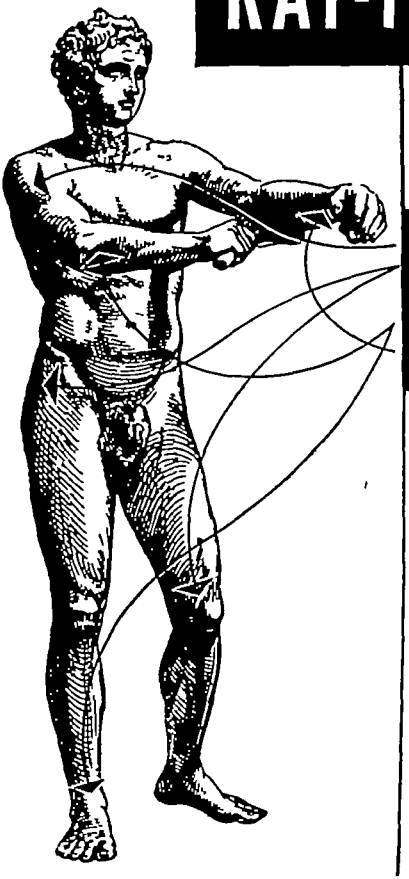
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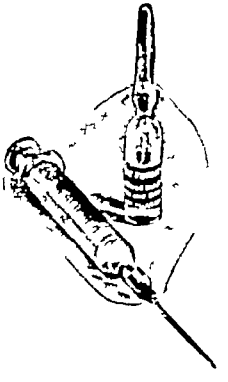
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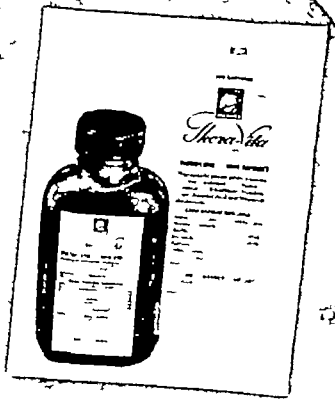
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*Jolliffe, N. The Preventive and Therapeutic Use of Vitamins. *J. A. M. A.*, 129:613, Oct. 17, 1945.

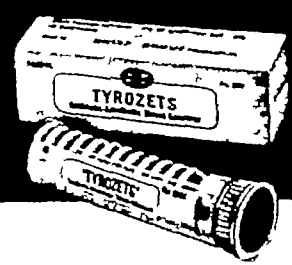
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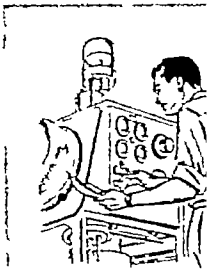
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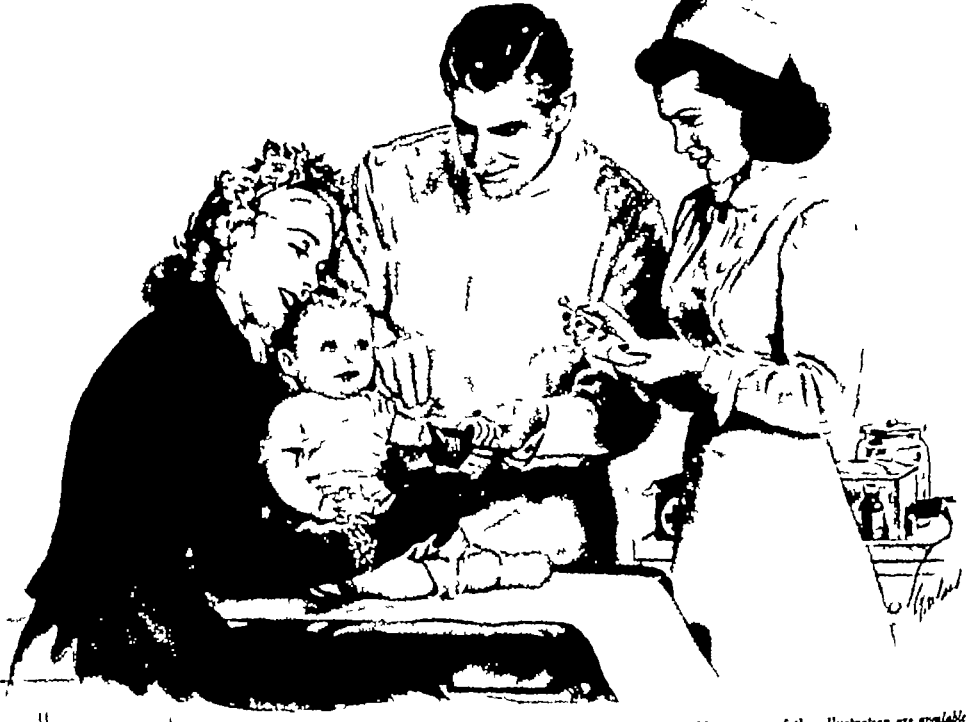


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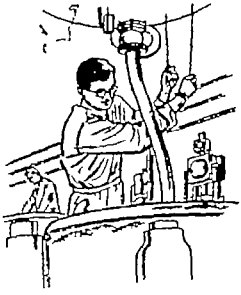




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NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 49 FEBRUARY 1, 1949 NUMBER 3

Editorials

Competition in Publicity

The straightforward aim of the American Medical Association is to tell to the general public the story of progress made in American medicine by a free profession To that purpose the fund raised by the assessment of $25 on each member will be devoted this year The people want and should have facts, they want and should have good medical care.

To disseminate these facts to a people now confused by the efforts of politicians, social planners, and others, including certain small groups of physicians, will demand a supreme effort, an effort to be guided by educational and not pressure tactics in the usual sense People must be told that American medicine has attained its high standards largely by voluntary methods, by the free and unrestricted and unhampered labors of the individual People must be persuaded to believe that voluntary medical care, probably through self insurance, is superior to a politically imposed compulsory system in which bureaucratic control would govern It will not be a simple matter to accomplish this, and the appeal for the necessary funds is justified The source of these funds will be the doctor himself, and the accounting will be an open one, so that all may be aware of the spending program

A press release emanating from a group calling themselves the "Committee for the Nation's Health, Inc," claims to number "among its officers, Russell Davenport, William Green, Bishop Francis J McConnell, Philip Murray, Thomas Addis, M D, Barry Bingham, Morris Llewellyn Cooke, Gerard Swope, David Sarnoff, Mrs Gardner Cowles, Mrs Albert D Lasker, R. M Walls, D.D S, Matthew Woll, Emil Rieve, and Michael M Davis "[1]

The chairman of the group, Dr Channing Frothingham, takes a dim view of the A.M.A 's determination to carry on its own publicity with funds raised by its members He announces in the release that there will be "a grass roots doctors' rebellion" against the American Medical Association plan to raise "a $3,500,000 war chest" He criti-

[1] Release (Dec. 6) 1948

cizes the House of Delegates for "pursuing a course unworthy of the medical profession and repugnant to the ethics of American doctors" One of his arguments is that this body is not representative, that only 5 per cent of its members are under 45 Any one who attends the A M A House of Delegates sessions would be impressed by the activities displayed by these chosen elderly (sic) statesmen

"It is particularly disturbing to note," he says, "that, although many physicians of the A M A 's membership support national health insurance, the proposal to embark on a nation-wide multimillion dollar campaign against it was not made known to the membership in advance of the closed session at which the decision was reached "

We would be grateful to Dr Frothingham for information which we would be glad to pass on to our readers as to the exact methods by which the A M A could tell its members of a decision *before* it had been reached

But now that we know the source of the funds by which the A M A 's educational campaign, unworthy though it be in his opinion, will be carried on, will Dr Channing Frothingham and the "Committee for the Nation's Health" be quite frank and disclose the source of *its* funds, some of which obviously must be used to carry on its Washington office, its New York office, the salaries of its employes and the preparation and mailing of its press releases?

We concede the right to the "Committee for the Nation's Health, Inc ," to set forth its views in any legal manner, as we insist upon the A M A 's right to say its say on the same terms But we do not think that the important question at issue, namely, national compulsory sickness insurance as projected by the new administration vs voluntary health insurance plans as advocated by the A M A in its ten-point program, will be fairly settled in the public interest except on the basis of cold, hard facts Publicity on both sides should adhere to the facts.

Relief Load Rises

Of significance to the medical profession is the news recently reported of the sharp rise in the nation's relief load [1] This information comes from the American Municipal Association and is attributed by that group to inflation, unemployment among unskilled workers displaced by skilled war veterans and movement of many families to other parts of the country, causing temporary emergencies

Says the news report in part

> The number of actual cases has increased 54 per cent in the last three years, from 232,000 to 358,000, while costs have jumped 136 per cent, from $6,600,000 to $15,600,000 a month
>
> Relief cases covered in the survey are general assistance payments to the indigent from the states and localities
>
> However, relief cases and costs still are far behind those in the period just before the war In February, 1940, a total payment of $14,500,000 was made to 1,687,000 families

[1] N Y Times Nov 15 1948 p 28

Why should this increase in relief be of concern to doctors of medicine? Because doctors are also citizen-taxpayers like most everyone else They carry their fair share of the tax load and will naturally be interested in the 136 per cent increase in costs noted above in the last three years

Since the relief cases covered in the survey are "general assistance payments to the indigent from the states and localities," it is logical to assume that the item of medical care would enter little if at all into this picture of general assistance Inflated prices of nearly every item entering into living costs are responsible

During the year, New York showed a 2 2 per cent decrease in case load according to the report, which is not explained However, New York State Labor Department statistics show a net decline since September, 1948, of 1 1 per cent in employment and 4 8 per cent in pay rolls from 2,378 factories in the State This may shortly be reflected

in augmented relief rolls and higher taxes to meet the increased costs

It seems at this writing that substantial increases in the New York State income tax will be necessary, perhaps in addition to a return to the normal 100 per cent tax on incorporated businesses Relief costs, of which the State already pays 80 per cent, are rising, and there may be demand for the State to carry an even larger share of this burden For welfare and education alone, it is estimated an additional 75 million will be required next year, even if the laws covering State aid in such respects remain the same If altered to pay higher percentages, naturally, this figure rises

In a time of inflation such as the present, wage scales or fee schedules mean little as an index of prosperity unless they are realistically related to taxes and living costs, or the costs of doing business Under modern practices of federal and state subsidies to agencies concerned with relief, it becomes difficult to judge the efficiency with which such agencies operate in administering their relief load

This is not to be critical of rising costs of relief to the indigent, but, assuming reasonably efficient management, to use these costs intelligently as an index to forecast the taxpayer's burden in the conduct of big business

For relief to the indigent has become big business Principally it is being administered by government and paid for by the taxpayer Private relief, conducted by nongovernmental agencies but paid for in private contributions by the citizens, is in addition to the tax-supported enterprises, so that anticipated tax increases will not assist but actually diminish citizen-aid

Mass production, be it noted, while it cheapens the cost of *things* if it produces more of them, places at the disposal of citizen-taxpayers and their governments the means to create mass destruction and mass misery This misery, of various kinds, must again be alleviated by relief at the taxpayer's expense so that the costs of this aid should properly be added to production costs in any fair accounting

Doctors who repair the salvageable remnants left behind by the guided or misguided missiles that infest our streets, for example, in increasing numbers, will be in a position to appreciate the prospect for vast increases in the case load of relief to the indigent and the enormous increase in costs of this relief which inflation must necessarily bring in its train

Medicine in the News

As this editorial is being written, nearly every publication daily, weekly, or monthly in the United States is featuring some aspect of medicine This rather overwhelming attention recently and rather suddenly accorded to the profession resembles the blooming of a century plant For the roots of that interest were planted about 1848, in a series of revolutionary movements in Europe

Medicine in its modern science and practice encompasses the growth of all learning in the natural sciences, in sociology, economics, and manufacturing, and is a crossroads of historic movements developing and gathering momentum through the last century

Progress in healing has always been newsworthy because it offered hope for millions of sufferers and was pledged to the conquest of death itself The spirit of liberalism has been and is the guiding genius of the medical profession and has pervaded its science and practice wherever the profession has been unchained and free to develop The comparatively isolated position of the United States, together with its political philosophy, has secured for the medical profession here a longer guarantee of freedom than most other regions of the earth This, too, is newsworthy, the more so as, one after the other, the nations of Europe have succumbed to various forms of state socialism

At this writing the American Medical Association has announced an assessment upon each member of $25 to raise a sum of approximately $3,500,000 This also is newsworthy But the urgent need to raise this sum is even more newsworthy

The revolutionary tide of 1848, having rolled over Europe, is now lapping at the shores of this continent This should be newsworthy and in fact is so recognized [1 2] Called by various names and tagged with assorted political labels, it is the same national socialism that has engulfed and captured the formerly free medical profession in all the countries of Europe In England, national health insurance immediately preceded the nationalization of medicine and the Bank of England That also was newsworthy but remote

Now, national health insurance is proposed for this country, with nationalization of the services of the medical profession here soon to follow through the medium of compulsory sickness insurance The people of the country should be informed of what goes on It is the intention of the A M A to do this Your contribution or assessment is to be devoted to this purpose

[1] Life Magazine (Nov 22) 1948 p 85
[2] J.A M.A 138 1098 (Dec 11) 1948

Current Editorial Comment

Combined Ventral and Lateral Pyramidotomy in the Treatment of Paralysis Agitans It has been suggested by Bucy that tremor is transmitted from the Betz cells of area 4γ through the large fibers of the pyramidal tracts This is based on his own experiences with excision of area 4γ, and those of Putnam in section of the lateral pyramidal tract, in the upper cervical region of the spinal cord, in cases of paralysis agitans However, lateral pyramidotomy does not interrupt all of the fibers arising from the large Betz cells of area 4γ, as the ventral and ventrolateral pyramidal tracts remain intact Because of the peculiarities of pyramidal tract decussation, complete interruption in the upper cervical cord of all pyramidal tract impulses to one side would entail section of the ipsilateral lateral tract and the contralateral ventral and ventrolateral tracts

A technic has been devised by Dr Judah Ebin to perform this through a single cord incision which crosses the midline, a technic which was presented in a paper at a recent meeting of the New York Academy of Medicine This procedure, a combined ventral and lateral pyramidotomy, has been used in 11 cases of paralysis agitans presenting unilateral or bilateral tremor and/or rigidity with almost complete disappearance of tremor and rigidity on the operated side Motor power returns, on the average, to approximately 35 to 40 per cent of normal In one case with bilateral symptoms, the procedure was done bilaterally with an excellent result Reports on further applications of this procedure will be awaited with interest

The Course Outline Book Just previous to the lamented death of the late Dr Oliver Wendell Holmes Mitchell, chairman of the Council Committee on Public Health and Education of the State Society, there was issued from his committee a *Course Outline Book* In this comprehensive pamphlet of almost 100 pages there is presented a program for lectures and demonstrations, including practically all branches of medicine and surgery, available to the county societies of the State The contributors are outstanding clinicians and teachers who have agreed to give these lectures on request, and this represents a noteworthy effort by the State Society to bring the advances in medical knowledge to every community of physicians who may desire to participate The booklet is a monument to the labor of Dr Mitchell and his associates, for which the Society should be most grateful

A Legislative Manual Under the above title, an important communication has been addressed to the chairmen and members of the legislative committees of the constituent county societies The importance of developing and maintaining an active interest in legislative matters should not be limited to these special committees The membership at large should keep itself informed about proposed legislation which affects its interests The work of the county societies' committees will be stimulated by an evidence of such interest

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

The Special Roles of Fat in the Diet

Fats have two and a quarter times the caloric value of carbohydrates and thus provide a condensed source of energy which is particularly needed for hard work They also add palatability and a satiety value to the diet, factors which are of large importance in food acceptance, as wartime and postwar European experience has demonstrated In addition, there are certain specific compounds in the fat molecule which have essential functions in nutrition

The Essential Fatty Acids

The fatty acids which have come to be recognized as dietary essentials are unsaturated acids of high molecular weight—linoleic and arachidonic The recognition of their essentiality dates from 1929 when Burr and Burr demonstrated that rats fed a diet almost devoid of fat developed a scaly condition of the skin, failed to grow normally, and eventually died [1] Certain derangements of kidney function and disturbances of reproduction were also noted in the affected animals The unsaturated acids were established as the responsible deficiencies in the fat-free diet on the basis of their effectiveness in preventing or curing the specific troubles produced in their absence It became recognized that the acids in question were dietary essentials because they could not be synthesized in the body, in contrast to oleic and the many others which make up body fats It also became evident, however, that both acids were not needed together, apparently because one can be synthesized from another Either linoleic or arachidonic acid alone cured the skin symptoms and caused resumption of growth

In extending the studies to other species, puppies reared on low-fat diets were found to develop a scaly skin curable by the ingestion of a fat high in linoleic acid Attempts to produce this condition in pigs, however, have resulted in failure Similarly, no deficiency symptoms were noted by Brown and coworkers in one human subject kept on a nearly fat-free diet for six months [2]

Of special interest to physicians are the studies which have been made of the possible usefulness of fats containing the essential fatty acids in the treatment of eczema Hansen noted that the blood serum of human subjects suffering from eczema was lower than normal in unsaturated fat, corresponding to previous observation with rats [3 4] They reported improvement when eczematous infants were given oils containing the essential acids

Hansen's initial report stimulated a number of others to try oils rich in unsaturated acids for the treatment of eczema, with varying results Cornbleet reported favorable effects with corn oil on chronic eczema which previously had resisted treatment [5] Finnerud and associates reported clinical improvement in the majority of 18 hospitalized patients, none being considered cured, however [6]

On the other hand, Epstein and Glick reported no benefit from the use of linseed oil, except in one case out of 34 [7] While Ginsberg and Bernstein noted improvement in a few of 17 patients from feeding codliver oil or corn oil, they concluded that there was no reason to believe any specific benefit resulted from feeding oils rich in the highly unsaturated acids [8] Taub and Lakon from a study with eight patients concluded that the use of linseed oil as recommended by Hansen was entirely unjustified and not without danger in patients who might be sensitive

to it [9] The most extensive study, however, has recently been published by Hansen and associates [10] In observations on 148 eczematous patients of various ages, addition to the diet of lard and certain vegetable oils rich in the unsaturated fatty acids produced a clinical response judged to be "good to excellent" in 60 cases, "fair to good" in 51, and "slight or nil" in 37

From a consideration of the reports as a whole, it appears that the ingestion of the essential fatty acids may have a beneficial effect on eczema in the case of certain individuals, when used along with good local and general therapy, including the elimination from the diet of all foods to which the patient is known to be sensitive As Hansen and associates stress in their article, the ingestion of fats rich in the specific acids should be considered adjunct to and not a substitute for other measures [10]

It should be noted that, except in the case of rats, the reported benefits have been obtained with fats rich in the unsaturated acids and not with the acids per se Thus, some other constituent besides the acids may possibly be concerned

The normal human diet should not be deficient in these acids If man's need is proportional to that of the rat, an intake of 1 per cent of the total calories should suffice Considering the wide distribution of these acids in animal and vegetable fats which make up our daily diets, a deficiency where absorption is normal seems highly improbable Whether any beneficial effect on eczema results because the patient's intake was previously deficient, or whether failure of normal absorption is involved is unknown

Animal vs Vegetable Fats

Much research has centered around the question as to whether animal fats are nutritionally superior to vegetable fats, as a class This research has been stimulated largely by the butter-oleomargarine controversy, and many papers have been published accordingly This question was very carefully reviewed by a special committee of the Food and Nutrition Board with the following conclusion "The present available scientific evidence indicates that when fortified (vitamin A) margarine is used in place of butter as a source of fat in a mixed diet, no nutritional differences can be observed" [11] Since the above report was issued, further evidence has confirmed the conclusion reached It now seems clear that butter and fortified oleomargarine are nutritionally equal for all practical purposes in the human diet

A special value for butter because of its content of an unusual fatty acid, vaccenic acid, was suggested by a report by Boer *et al*, in 1947 [12] These workers published evidence that summer butter has a special effect on rat growth because of its content of this acid Later studies by others have failed to confirm these findings It is also apparent that vaccenic acid occurs in other fats, both animal and vegetable

Butter is superior to other fats because of its vitamin A value, unless this vitamin is added to the other fats This superiority does not hold for any other animal fat The essential fatty acids are to be found in both animal and vegetable fats Lecithin, which provides the choline essential for fat transport by means of phosphorylation, is present in both Thus, all the evidence indicates that, as a class, the two sources of fat are nutritionally alike

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Scientific Articles

VALUE OF SUPPLEMENTARY PROTEIN FEEDING IN AGED AND CHRONICALLY INFECTED ORTHOPEDIC PATIENTS

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NO ORTHOPEDIC surgeon will find it difficult to recall to his memory a case such as the following

A seventy-three-year-old patient with injured hip is admitted Roentgenographic examination reveals a displaced fracture of the neck of the femur The laboratory reports mild anemia with normal urine analysis and blood chemistry The fractured hip is nailed without difficulty, and the patient is returned to the ward in a satisfactory condition The immediate postoperative course is uneventful In a few days the nurse reports beginning sacral skin necrosis Shortly thereafter, the patient's appetite is noted to be poor Fluid intake is low, and the patient appears apathetic

Within two weeks the patient becomes confused and incontinence of urine and feces is present There is a slight elevation of temperature and the decubital ulcer becomes larger Pressure sores develop at the elbows and elsewhere Despite most careful nursing, a steady downhill course results Wasting becomes evident, daily rises in temperature occur, and loss of bladder and bowel control is complete The pulse rate rises, rales are heard in both lung fields Quietly, slowly, undramatically, the temperature rises to 104 F Respirations are increased, and the pulse becomes weak and thready Death ensues in spite of conservative or heroic measures Autopsy is obtained The pathologist reports a body appearing older than the stated age with a healed operative incision, decubital ulcers at weight-bearing areas, generalized arteriosclerosis and heart disease, bilateral bronchopneumonia, and malnutrition

Fortunately, this sequence of events can be made rare by constant awareness of the effects of malnutrition, avitaminosis, and the altered metabolism of the injured patient Only by the attending surgeon's refusal to accept the inevitability of such indefinite symptoms can the sequence of events be reversed Many lines of investigation have been stimulated to find the plausible explanation of this clinical picture In this, as in so many other problems present in medicine and surgery, an answer may be found by careful analysis of a single thought, or, indeed, a single word

The word protein, derived from the Greek word meaning first (or, freely translated, "of first importance"), has drawn the attention of many investigators Strangely enough, not many investigators of orthopedic problems have been concerned with it Research workers studying protein have been directly interested in wound healing, nitrogen balance, fluid balance, salt balance, nutrition, blood clotting, and its many associated problems Protein investigation has been extensive as related to local edema, generalized edema, pulmonary edema, nephrotic states, the problems of immunity, the hepatorenal syndrome, sepsis, the hormones, the enzymes, liver function, and the protective role of the liver to toxins It has even been extended to the synthesis of prothrombin and the poor response of patients to trauma, operations, and anesthesia The basic physiologic relation of the proteins to all these problems has been presented by many authors With relation to the direct problems or the orthopedic surgeon, in 1919, Clark, working with dogs, showed that the lag phase in wound healing was markedly shortened with high protein diet [1] Howes and McKeown in 1934 pointed out the relationship of high protein intake to bone healing with specific favorable influence of rate and firmness of callus formation in animals on a high protein diet [2] Cuthbertson in 1936 pointed out the remarkable loss of proteins in the urine following fractures [3–5] A decreased formation of callus in hypoproteinemic dogs was reported by Rhoads and Kasinskas in 1942 [6] More recently,

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Barr and his coworkers at Cornell observed and reported a marked negative protein balance present in presumably normal patients confined to bed Best and Taylor in discussing calcium balance state that protein foods tend to increase the absorption of calcium since the latter forms soluble complexes with certain amino acids [7] Albright has postulated that the adrenal gland produces an "N," or protein anabolic hormone, and an "S," or sugar anti-anabolic hormone, and that normally these are balanced [8] After injury, there may be decreased excretion of "N" and an increased excretion of "S" hormone, producing an increased catabolism of protein. More recently, the events of the war have led to the realization of the massive loss of protein associated with fractures of the femur, so much so that many authors refer to this phenomenon as a "toxic" loss of protein

The pressure of these events forced us to consideration of the nutritional state of patients on the orthopedic service at St Luke's Hospital The essential nutrition of an aged patient with a fractured hip, an aseptic necrosis of the head of the femur, a nonunion of a fractured neck of the femur, or a fractured femoral shaft is far beyond treatment with vitamins or the so-called "regular diet" A patient convalescing from a hip fusion or patients with chronic osteomyelitis with draining sinuses in need of massive saucerization, bone-grafting, pedicle skin-grafting, etc , always demand accurate estimation of protein status and specific reinforcement of dietary proteins

A so-called "regular diet," so blandly and casually ordered in routine fashion, when closely scrutinized, reveals many deficiencies, not only in itself but also in the way it is received by the individual patients A *thirty-day survey* of 32 unselected patients revealed that half the patients ate 70 per cent of their diet, a quarter of them ate 50 per cent of this diet, and the remaining quarter ate only 15 to 30 per cent The average patient was receiving 50 per cent of the diet, or only 35 Gm of protein daily Together with this fact was combined the observation that routine initial total protein blood levels were 5 1 to 5 6 mg per cent These facts led us to realize that highly technical tests were unnecessary to establish the presence of low protein intake and the marked deficiency of the so-called "regular diet"

Recognition of protein deficiency is not discernible by clinical observation alone A simple clinical or laboratory test to determine such a deficiency is not available Complete nutrition study at the present time includes a nitrogen balance study (which indicates the metabolism of the whole protein), an amino acid balance study (which follows the fate of single amino acids), plus blood volume determinations, total circulating protein determinations, and determination of the available fluid space, which gives some indication of the amount of *interstitial fluid* in the body More recently, Locallo *et al* have advocated that the estimation of the protein concentration of the patient's fascia be used as a means of ascertaining the state of protein nutrition and protein level of the tissues [9] The very existence of these various tests points out the complexities of the problem of accurately determining the nutritional state of the patient

The above scientific investigation is obviously impossible on a mass of clinical material In our patients the laboratory investigation was limited to total protein blood level, albumin-globulin ratios, and blood hemoglobin levels One must note that a low plasma protein and a low albumin-globulin ratio are strong indicators of protein deficiencies This basic laboratory work was done on our patients and definite observation of the average patient's diet and actual daily protein intake made It was realized from numerous reports that intravenous supplementary protein feeding is unsatisfactory Steps were taken, therefore, to increase the oral protein intake of our patients If one is not aware of the extreme difficulty in accomplishing this, he will shortly realize that cooperation, not only from the patient but also from the nurse in charge, the dietitians, the house officers, and the attending surgeons, is *absolutely necessary* At *first*, increased protein feedings were provided by the use of additional eggs, eggnogs, albumin water, and increased meat portions This was accepted neither quickly nor without difficulty by the patients as a group Some patients did not want an increased number of eggs Others did not take to eggnogs, and still others complained that they could not eat such quantities of meat The appearance of actual indigestion, biliousness, diarrhea, and abdominal cramps, while not generally present at any one time, were noted in isolated cases With constant attention, supervision, variation in diet, and emphasis to the patient of the importance of an adequate diet, much was and can be accomplished Yet, it cannot be stated too vehemently that the clinical impression that patients are on a high protein diet and getting a massive quantity of protein is, in many cases, erroneous Actual eating of the diet must be observed by the nurse or dietitian The food trays must be checked for amount of food consumed, and records must be kept and evaluated by trained dietitians In all our cases, such records were kept on the daily intake in grams of carbohydrates, proteins, fats, and the total calories actually eaten by such patient This routine showed very strikingly that the writing of an order for a high protein diet and the serving of a

high protein diet to the patient did not mean that the patients were actually providing themselves with 100 to 150 Gm of protein daily

In fact, analysis of these records showed that during any one week patients would vary their intake from a low of 35 Gm of protein daily to a high of 160 Gm. The caloric intake in the same patient would vary from a low of 1,215 total calories a day to a high of 3,325 calories The most striking fact, discovered upon close observation of the dietary habits of these patients, was that the majority of them, thought to be on a regular diet, were actually eating only 35 to 50 Gm. of protein daily In most cases the comparison of the resident's impression of the food intake of the patient with the actual amount of food consumed was completely erroneous Moreover, this study revealed that those caring for a group of patients would be cognizant of the patient's diagnosis, roentgenographic findings, number of days in bed, temperature, pulse and respiration, fluid intake and output, and clinical and laboratory facts (commonly accepted as important), yet no one knew exactly the amount of food the individual patients were consuming We cannot emphasize too strongly the need for directing attention to the actual food eaten by the aged and chronically infected orthopedic patient Interest and concern must be directed to more than the mere ordering of a regular diet, a high protein diet, or whatever the so-called routine may be The food actually eaten must be known so that the vicious cycle of loss of strength, lassitude, anorexia, depletion of tissue proteins, loss of weight, and all its consequent hazards will not bring the patient to a low level of asthenia

Following a period in which patients were maintained on high protein feedings as mentioned above, other steps were taken to assure patients of a high protein intake, namely, the use of a supplementary protein The product used was Protinal * The powdered product is palatable and capable of producing the same clinical and laboratory response as was noted with supplementary protein foods

There were 32 patients studied in this series These patients were closely followed as to daily carbohydrate, protein, and fat intake A minimum of 100 Gm. of protein daily (and a maximum of 150 Gm) were provided by diet and supplementary protein feedings Six to eight tablespoons of Protinal were taken daily by the patients in addition to their regular food (70 Gm of protein) One hundred twenty grams of protein a day were therefore provided Blood protein levels and albumin-globulin ratios were done weekly Blood hemoglobin levels were done as indicated The weights of the patients were checked on admission and at time of discharge from the hospital

For the sake of analysis, these patients will be presented in two groups Group I included the aged patients with fractured necks of the femur, intertrochanteric fractures, and nonunion of fracture of the neck of the femur Group II were those with gross infections of nonunited tibiae and femora

There were 15 patients in Group I The average age on admission was sixty-seven years, and their average blood hemoglobin was 84 per cent On discharge the average blood hemoglobin was 93 per cent Average total blood protein on admission was 5 7, and on discharge it was 6 8 These 15 patients are still being seen in follow-up clinic, and, while it is too early to comment on the results of the various orthopedic problems, their postoperative course and convalescent periods were strikingly uneventful It is well to mention at this time that a consideration of the complete response of the patient cannot be attributed to the benefits of adequate diet alone These people had the benefit of excellent anesthesia, together with well worked out surgical procedures, antibiotics when indicated, careful supervision of fluid balance, vitamin therapy, and transfusion at operation when indicated The point is made, however, that protein therapy was considered a most important part of postoperative care Two typical cases of the first group are reported

Case Reports

Case 1—E L, a sixty-one-year-old Russian woman, was admitted following a fall at home twenty-four hours prior to admission. Roentgenograms revealed an intracapsular fracture of the right femur On admission, the total blood protein level was 5 1 mg per 100 cc and the hemoglobin was 81 per cent She also had severe rheumatoid arthritis which had been treated in the arthritic clinic for a period of fourteen months Within twenty-four hours an internal fixation was done, and she was placed on supplementary protein feedings which were accepted poorly at first. With continued efforts her protein intake level was raised In three weeks she was permitted up and about with crutches and brace She complained of pain in the affected hip and roentgenograms revealed that the three-flange nail had displaced in the femoral head (Fig 1) A hexagonal osteotomy was immediately done, and skeletal traction maintained for six weeks The blood protein level rose from 5 1 to 6 1, and the hemoglobin increased from 78 per cent to 87 per cent The patient had gained nine pounds when dis-

* Provided for this study by the National Drug Company Protinal is a whole protein-carbohydrate preparation possessing high nutritive value and containing 70 per cent of an effective intact protein with all of the essential and non essential amino acids and an adequate carbohydrate content. Each 30 Gm. contain 18 4 Gm. of protein derived from milk, with .2 Gm of carbohydrate.

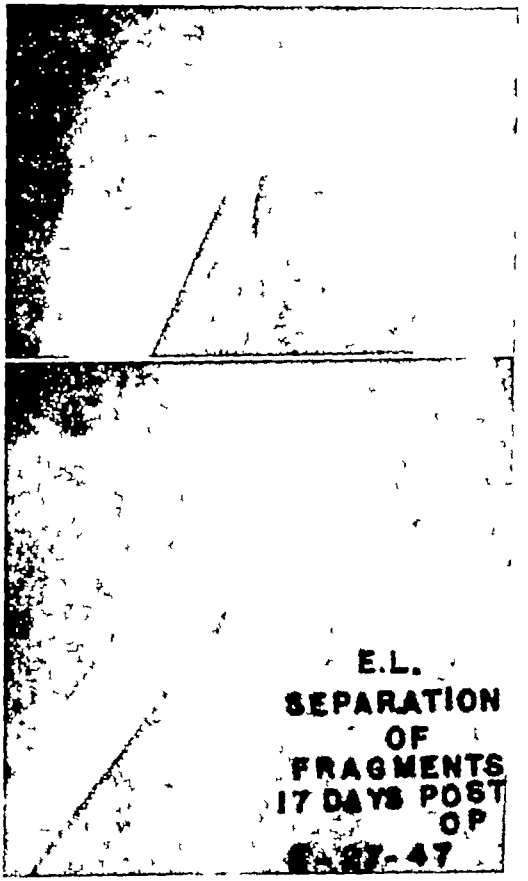


FIG 1 Roentgenograms on February 27, 1947, revealing displaced three-flange nail out of femoral head (Case 1)

charged on July 12, 1947 Rapid healing of the osteotomy site was noted, and when last seen in follow-up clinic, the intracapsular fracture was healed (Fig 2) During all this time, despite her age, fracture, bed confinement, and two operations, the general condition continued to improve

Case 2—E P, a fifty-year-old white woman, was admitted February 16, 1947, with a pathologic subtrochanteric fracture of the right femur Two years prior to admission, the patient had been treated on the medical service for chronic alcoholism, pernicious anemia, and tertiary syphilis Ten days after admission, a Jewett nailing of the right femur was done She was in traction eight weeks, and then a brace was used Three and one-half months after the fracture, while moving in bed, she refractured her femur and broke the nail A second nailing with bone grafts was done, and she was kept in a brace in bed for a full five-month period On December 12, 1947, after being out of the hospital two days, she had recurrence of pain in the right hip Roentgenograms revealed a second refracture of the femur and the nail An osteotomy was done with steel plate and additional bone grafts At present she is still hospitalized and in traction This patient's protein blood level was 5 8 on admission and now ranges between 7 2 and 7 4 Hemoglobin was 90 per cent at first and is now 102 per cent. During her initial stay of approximately ten months in the hospital she gained 28 pounds This patient had a fractured hip, two refractures, three severe hip operations, a year in bed, and yet her general basic condition has been steadily improved

The second group of patients studied represents that group with compound fractures of the femur or tibia complicated by osteomyelitis of long duration The three following cases are representative of this group

Case 3—M P, a forty-three-year-old white woman, was admitted to St Luke's Hospital on May 11, 1946, with a history of falling under a subway train seven months prior to admission She had sustained multiple injuries and a compound fracture of the left femur On admission she had a nonunion of the left femur with draining sinuses Four operative procedures were performed as follows Immediate removal of plate and screws, six months later, decortication and sequestrectomy of the shaft of the femur, seven months postadmission, iliac strip grafting of the still draining femur through fresh incision, and eighteen months postadmission, incision and drainage of an abscess of thigh During most of the hospital stay Staphylococcus aureus hemolyticus was cultured from draining sinuses from the thigh which eventually healed On admission the patient had nonunion infected femur, a hemoglobin of 94 per cent, total protein of 6 9, and weighed 121 pounds. On discharge she had a solid healed femur, a hemoglobin of 96 per cent, total protein averaging 8 1, and had gained 28 pounds

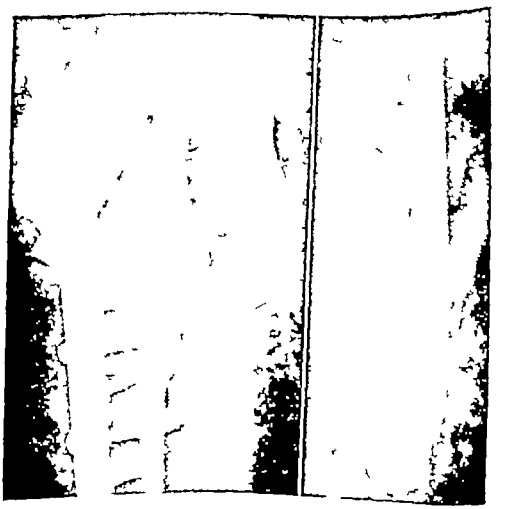


FIG 2 Roentgenograms on January 13, 1948, almost one year after hexagonal osteotomy, showing healed intracapsular fracture (Case 1)

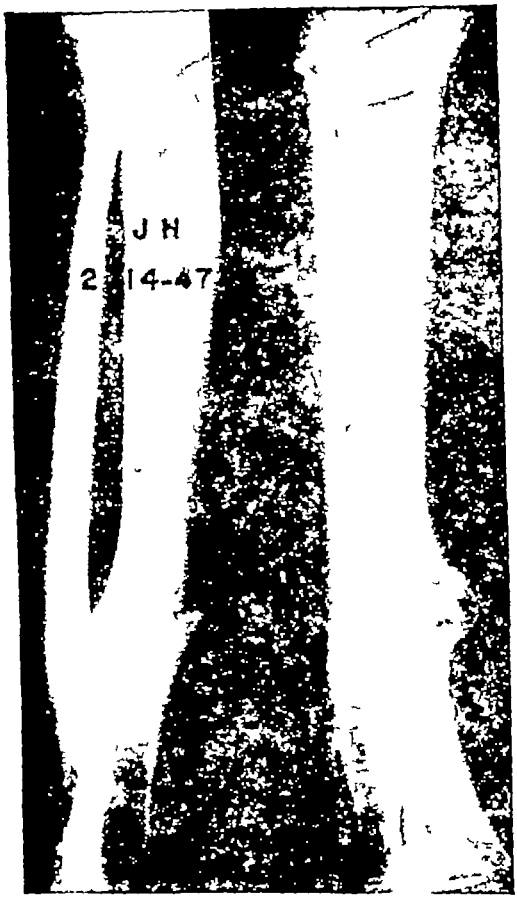


FIG 3 Roentgenograms on February 14, 1947, of an old compounded infected nonunion left tibia (Case 4)

Case 4—J H, a forty-five-year-old white man, was admitted to St Luke's Hospital on February 13, 1947, giving a history of a compound fracture of the left tibia in 1931 (Fig 3) In 1933 there had been grafting of the tibia In 1934 this was followed by sequestrectomy Transplantation of the fibula to the tibia had been done without avail. The lower extremity was asymptomatic (but with nonunion of the tibia) until 1942 when a draining sinus appeared and was untreated for five years Following admission to St Luke's, saucerization of the tibia was done which was followed by a split thickness graft one month later Three months after admission there was implantation of iliac chip grafts and plastic skin closure Union occurred despite incomplete skin healing He was discharged six months after admission with minimal drainage from the tibia He had gained 27 pounds in weight while on the service and on discharge had a hemoglobin of 98 per cent and a total blood protein of 7 4, as compared to an admission hemoglobin of 80 per cent and an initial blood protein of 6 1 Follow-up roentgenogram, taken on February 11, 1948, is shown in Fig 4

Case 5—J L, a fifty-one-year-old white man, was admitted to the orthopedic service on March 10, 1947 On admission this patient had a compounded nonunion of the left femur sustained one year before There was minimal drainage from the thigh Manipulation was done for severe angulation, and four months later, through a posterior approach iliac strip bone grafts were placed about the site of nonunion One month later, incision and drainage of the thigh was necessary Two weeks following his bone-grafting, drainage occurred at the operative site. Staphylococcus aureus hemolyticus was cultured. He was maintained on penicillin throughout, despite marked resistance of the organism cultured, to prevent secondary infection with other organisms This patient went on to complete healing with the actual take of the iliac grafts at the infected site of the femur On admission he had a hemoglobin of 84 per cent, a total blood protein of 6.2 per cent. At time of discharge on April 28, 1948, he had a hemoglobin of 96 per cent, a total blood protein of 7 1 per cent and had gained 6 pounds in weight

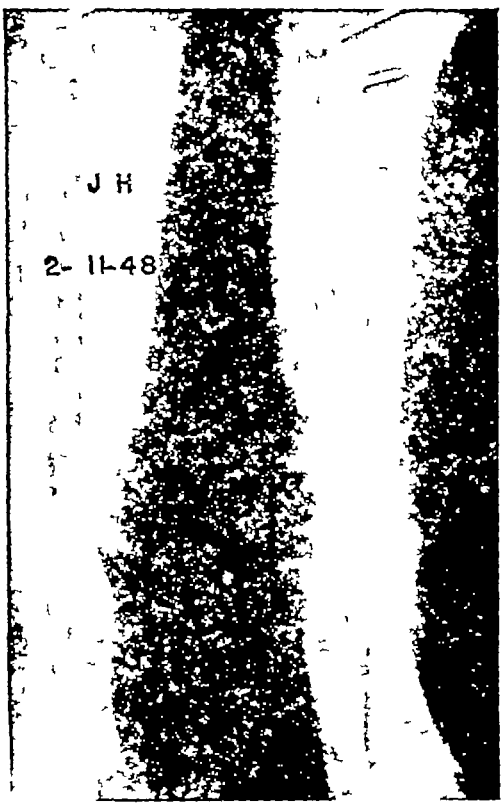


FIG 4 Roentgenograms on February 11, 1948, showing healing with union and absence of infection (Case 4)

The three patients mentioned above are representative of a group of patients which are notorious for poor wound healing and poor bone-grafting results The maintenance of high protein intake is not the sole factor in the care of these patients but is considered of critical importance to their healing All three of these patients at the present time are healed, with no evidence of infection, and the reconstructive procedures were completed in spite of the presence of gross infection

We have, in the past, seen a group of patients with generalized decalcification of the spine, multiple compression fractures of the vertebral bodies, and lassitude and marked asthenia, which have responded poorly to treatment A small number of these patients have been placed on high protein diets, both with and without androgenic and estrogenic therapy It is too early as yet to state any definite opinion, but our impression is that the general well-being and symptoms of these patients are vastly improved by a high protein diet

onclusions

1 Aged, injured, infected, or bedridden orthopedic patients, if left to themselves, tend to assume a negative protein balance, even if offered an adequate diet

2 Positive protein balance can be provided by ingestion of 100 to 150 Gm of food protein or by the less expensive and more positive means of "medication" with a supplementary protein product such as Protinal The regular hospital diet (70 Gm of protein) is too low for adequate maintenance

3 To secure results, a record of definite ingestion of protein provided must be maintained, and difficulty in initiating such ingestion is often encountered

4 Positive protein balance is reflected by rise in blood protein, hemoglobin, and body weight

5 Positive protein balance has shown benefit in maintaining integument integrity, promoting bone healing processes, controlling old osteolytic infections, and reversing debilitating processes of the injured aged

6 Supplementary protein therapy avoids detrimental obesity incident to fat and carbohydrate intake accompanying protein in high caloric diets

742 Park Avenue

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BLOOD DERIVATIVES IMPORTANT FOR MEDICINE, RESEARCH

Writing in the November 20 issue of the *Journal of the American Medical Association*, Charles A Janeway, M D , from the department of pediatrics, Harvard Medical School, and the Children's Medical Center, Boston, reports that breaking up blood into specific components also effects a great economy in using blood donations

Because a function of the blood is concentrated in each fraction, donations which in the form of whole blood could be used to treat only 20 patients can be used as blood derivatives to treat over 200 patients, he points out,

Another important consideration, Dr Janeway says, is that many of the blood components undergo rapid deterioration in whole blood Separated and concentrated, each may be packaged in a state best adapted to the preservation of its functional activity, ready for clinical use when and where it is needed

During the Army-Navy-Red Cross blood program of World War II, slightly more than two million blood donations were subjected to fractionation, yielding products which were used in part by the armed forces Surplus products were returned to the American people

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Conclusions

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order to disclose any possible antecedent episodes of trauma to the genitalia, venereal disease, or childhood illnesses, such as mumps and scarlet fever, which are sometimes provocative of orchitis and epididymitis. An extensive sexual history is carefully checked and investigated, this must, of course, include detailed information about prepubertal sexual experiences, advent of puberty (delayed in hypo-orchidism and eunuchoidism), and premarital relationships The current marital status is then thoroughly explored with specific reference to frequency of intercourse, extramarital associations, and any possible emotional or physical incompatibility with the mate It is not uncommon for a patient to have normal intercourse extramaritally and yet be impotent with his own wife Questions concerning abnormal sexual practices (coitus interruptus, perversions, etc) are imperative The social background of the patient is determined as well as his occupation and economic status with a view to uncovering any relationship to his complaint Drug addiction and alcohol indulgence are important considerations Although alcohol will cause a retardation of spermatogenic elements, only in exceptionally large doses over a long period of time will it have an effect on potency The hereditary history is investigated in order to ascertain any possible hereditary disposition to sexual weakness A routine functional inquiry is made to bring to light any abnormalities in any of the systems which may have a bearing on the patient's complaint

Physical examination must of necessity be thorough and complete. Special note is made of the distribution of fat and hair, as well as genital abnormalities Scrotal contents, perineum, and prostate are accorded special care In every instance microscopic examination of the prostatevesicular secretion is performed. Where indicated, extensive laboratory data are procured to indicate infectious disorder or metabolic or endocrinologic dysfunction. Thus, delayed epiphyseal closure is revealed by x-rays of the long bones when hypogonadism is associated with anterior pituitary disturbance Seminal secretions may be examined as a supplementary test, since, occasionally, hypofunction of the testicles is associated with finding inactive and decreased numbers of sperm. Cystoscopy is frequently performed to discover any pathology in the posterior urethra, such as polyps, cysts, or chronic inflammatory changes In rare instances seminal catheterization and vesiculography are considered important

Treatment

The treatment of impotence depends upon establishing a proper diagnosis as to its cause. Surgical therapy is rarely required and is usually confined to those cases in which there is a congenital abnormality The following defects fall into this category (1) extreme epispadias or hypospadias, (2) trauma of the perineum by accident or operation, (3) inflammatory lesions of the perineum due to excessive scar formation, (4) certain cases of advanced age with loss of tone of perineal muscles (5) conditions preventing erection such as concealed penis, where the copulatory organ has grown into the scrotum, (6) congenital strictures, (7) gangrene of the penis followed by impotence where the slough has been replaced by scar tissue, and (8) injuries to erectile tissue such as fractures of the penis

Various operative procedures have been used in order to control erection One is ligation of the deep dorsal vein of the penis The theory underlying this procedure is to prevent the too rapid egress of the blood from the penis so that a more rigid erection will be obtained Another surgical procedure is that of Steinach where the vasa deferentia are tied off in order to increase the number of interstitial cells with a consequent increase in hormonal secretion. Results with this type of procedure have not been altogether satisfactory according to the majority of reports Another method to obtain a more satisfactory erection is that introduced by Lowsley, who plicates the bulbocavernosus muscle and the ischiocavernosus muscle which allows greater compressibility of the veins leading from the penis and, therefore, a better erection can be obtained The group of cases that can be treated surgically, however, is comparatively small Polyps and other growths of the posterior urethra may be treated surgically by cauterization through the cystoscope

In discussing therapy for impotence due to congestion of the posterior urethra prostate, and seminal vesicles, in which there is a catarrhal inflammation of this area, the treatment consciously or unconsciously has been directed toward relieving irritation of the peripheral nerve endings of this area which are constantly sending impulses to the central nervous system Our theory is that premature ejaculations and final loss of sexual desire are part and parcel of the same process With excess stimulation due to the catarrhal inflammation present, one would expect a hypersensitivity of the nerve endings with consequent premature ejaculation. As this stimulation continues, the nerve centers in the spinal cord either become fatigued due to the continuous stimulation or, because of the constant inflammatory condition about them, become damaged, with the result that impulses

order to disclose any possible antecedent episodes of trauma to the genitalia, venereal disease, or childhood illnesses, such as mumps and scarlet fever, which are sometimes provocative of orchitis and epididymitis. An extensive sexual history is carefully checked and investigated, this must, of course, include detailed information about prepubertal sexual experiences, advent of puberty (delayed in hypo-orchidism and eunuchoidism), and premarital relationships The current marital status is then thoroughly explored with specific reference to frequency of intercourse, extramarital associations, and any possible emotional or physical incompatibility with the mate It is not uncommon for a patient to have normal intercourse extramaritally and yet be impotent with his own wife Questions concerning abnormal sexual practices (coitus interruptus, perversions, etc) are imperative The social background of the patient is determined as well as his occupation and economic status with a view to uncovering any relationship to his complaint Drug addiction and alcohol indulgence are important considerations Although alcohol will cause a retardation of spermatogenic elements, only in exceptionally large doses over a long period of time will it have an effect on potency The hereditary history is investigated in order to ascertain any possible hereditary disposition to sexual weakness A routine functional inquiry is made to bring to light any abnormalities in any of the systems which may have a bearing on the patient's complaint

Physical examination must of necessity be thorough and complete Special note is made of the distribution of fat and hair, as well as genital abnormalities Scrotal contents, perineum, and prostate are accorded special care In every instance microscopic examination of the prostatevesicular secretion is performed Where indicated, extensive laboratory data are procured to indicate infectious disorder or metabolic or endocrinologic dysfunction. Thus, delayed epiphyseal closure is revealed by x-rays of the long bones when hypogonadism is associated with anterior pituitary disturbance Seminal secretions may be examined as a supplementary test, since, occasionally, hypofunction of the testicles is associated with finding inactive and decreased numbers of sperm. Cystoscopy is frequently performed to discover any pathology in the posterior urethra, such as polyps, cysts, or chronic inflammatory changes In rare instances seminal catheterization and vesiculography are considered important

Treatment

The treatment of impotence depends upon establishing a proper diagnosis as to its cause Surgical therapy is rarely required and is usually confined to those cases in which there is a congenital abnormality The following defects fall into this category (1) extreme epispadias or hypospadias, (2) trauma of the perineum by accident or operation, (3) inflammatory lesions of the perineum due to excessive scar formation, (4) certain cases of advanced age with loss of tone of perineal muscles, (5) conditions preventing erection such as concealed penis, where the copulatory organ has grown into the scrotum, (6) congenital strictures, (7) gangrene of the penis followed by impotence where the slough has been replaced by scar tissue, and (8) injuries to erectile tissue such as fractures of the penis

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are not carried through them Treatment then is logically directed toward relieving congestion and irritation in the posterior urethra, prostate, and seminal vesicles in order to put the nerve endings in a more receptive condition This is accomplished by massage of the prostate, weak instillations of silver nitrate with a Bangs' instillator, and stimulation of the nerve endings by cold sounds, physical therapy, such as faradic stimulation of the posterior urethra, as well as rectal diathermy Kovacs believes that physiotherapy plays a most important role in relieving congestion of the posterior urethra [8] He claims that treatment, comprising massage of the prostate, deep instillations, and rectal irrigations, means long treatment with varying results He recommends treatment with faradic current with the rate of discharge of the spark gap not to exceed 30 per minute This increases tone and tends to relieve the congestion of the posterior urethra Rectal diathermy is also recommended in our clinic Hot and cold douches and showers, as well as hip baths, act as stimulants to the central nervous system Further study of the physiology of both stimulation of the nervous centers and of nerve endings will be of great help in the understanding of the problem of impotentia The success of our treatment depends upon the extent of injury already sustained by the nervous system and its recuperative powers

Aphrodisiacs such as yohimbine and cantharadin have not been found of much value in stimulating those cases in which there is lack of desire, premature ejaculation, or lack of normal erection In general, treatment tonics containing arsenic and strychnine are given with fairly satisfactory stimulating results In those cases in which there is hyperirritability of the nervous system, sedatives are employed Full, well-balanced diets are constantly recommended with adequate quantities of alpha-tocopherol

Endocrine therapy has been used extensively, but, as has been pointed out, if the glands are not impaired or deficient, they will not respond to such stimulation.[9] Testosterone is given in doses ranging from 25 mg three and four times a week, depending upon the extent of the endocrine pathology or deficiency An excess of testosterone causes inhibition of the pituitary with consequent failure of the gonadotropic hormones to enter into the blood stream This is a checking mechanism since the decline of pituitary stimulation causes a similar decline in testicular secretion The influence of testosterone propionate on the testes is variously interpreted The general assumption is, however, that the injection of the testicular hormone is the substitution of the gland's own secretion which brings out the secondary sex characteristics and generally stimulates the secondary sex apparatus Severe injury to the seminiferous tubules may result from excess administration of the hormone, as demonstrated by Zuckerman in his work on monkeys [10] Testosterone propionate is of little value in cases that have no endocrine disturbance

In problems in which there is a relative hypogonadism with no congestion of the posterior urethra, dramatic results with testosterone are frequently obtained The drug must be continued, however, for, with cessation of its use, the patient's status regresses In the more nervous type of patient, sedatives are used Anesthetic ointments on the glans penis in premature ejaculation have been recommended by some authors Further investigation regarding the pathology of nerve endings and their response to stimulation may open new vistas as to the proper treatment of obstinate cases

Those cases which are purely psychic should be handled by a physician trained in psychiatry However, all organic disease must be first ruled out before the patient is referred to a psychiatrist Logically, the study of cases of impotence falls to the care of the urologist because of his training in diseases of the genitourinary tract and his consequent ability to rule out any organic lesions which may be causing impotence In all cases, reassurance, sympathetic management, and correction of misconceptions are essential Therapy must be of an all-inclusive nature which requires a high degree of interdepartmental cooperation directed to the correction of the basic defects, whether organically or functionally determined

Summary

The problem of impotentia in the male has been surveyed as a clinical entity with special consideration of the physiologic and pathologic factors involved A method of approach to the problem has been described, and therapeutic aspects have been discussed

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GIANT FOLLICLE LYMPHADENOPATHY

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GIANT follicle lymphadenopathy is to be understood as a pattern of hyperplasia with potentialities for multiple differentiation, the end phase being unrecognizable in the initial morphology This disease is a composite condition of a potentially malignant lymphoma In its earliest form it begins as a lymph node hyperplasia in which undifferentiated cells that possess unrestrained potency for differentiation particularly participate Giant follicle lymphadenopathy is characterized by its ability to change its morphologic form and is capable of direct transformation into one of several structural modifications lymphatic leukemia, lymphosarcoma, polymorphous cell sarcoma, and Hodgkin's disease The disease need not change its histologic pattern but can steadfastly maintain its original pathodiagnostic architecture unaltered until death (giant follicle lymphoblastoma) Recently, the concept of the pluripotentiality inherent in giant follicle lymphadenopathy was expanded to include the transformation into reticulum cell sarcoma of bone [1] The pathoanatomic forms which this disease can assume are now seven in number Each of the various terminal manifestations does not constitute a separate disease but represents an end phase

Originally, the disease was called giant follicular hyperplasia but the name changed to follicular lymphoblastoma to indicate that the prognosis is uncertain and may be poor Regressions, exacerbations, and complete remissions are possible In its early stages, the ailment is still reversible More frequently, the disease progresses slowly, takes the course of a malignant neoplasm, and, according to some, is invariably fatal [2] The totality of phases, the terminal manifestations, and the prognoses can be schematized as follows (Table 1)

The disease has multiple unique features It is the purpose of this presentation to review briefly some of the patho-anatomic forms and indicate the clinical course Secondly, of all the malignant lymphomas, giant follicle lymphadenopathy has a relatively better prognosis than other forms in this category The disease develops and progresses slowly, it is particularly radiosensitive in some phases These features we shall attempt to correlate with the morphology

TABLE 1 —SCHEMATIZATION OF THE COURSE OF GIANT FOLLICULE LYMPHADENOPATHY

Simple inflammatory hyperplasia of lymph node	Follicular inflammatory hyperplasia	Giant follicle lymphadenopathy (Follicular lymphoma) (Giant follicular hyperplasia)	Giant follicle lymphoblastoma Lymphosarcoma Lymphatic leukemia Hodgkin's disease Polymorphous cell sarcoma Reticulum cell sarcoma
Reversible		Reversible Recurrent	Irreversible

Brill-Symmers disease probably dates to Cohnheim (1865) who introduced the term pseudoleukemia when he described a case which seems to have been a follicular lymphadenopathy Lennander (1893) and Pfister (1901) recorded similar cases Becker (1901) retained pseudoleukemia in his presentation of an instance of hyperplastic activity in lymph nodes accompanied by splenomegaly Detailed reports of the entity were then given by Foix and Roemmle (1902) Kettle (1920), and de Long (1921) In 1925, Brill, Baehr and Rosenthal gave impetus to the recent appreciation of the disease when they discussed fully the clinical and histologic features These authors identified giant follicle lymphadenopathy as a variety of lymphosarcoma from which it required differentiation. They interpreted the disease as an intermediate condition between lymphosarcoma and lymphatic leukemia or in the earlier stages as a transition between hyperplasia and lymphosarcoma. Symmers in 1927 and 1938 postulated an inflammatory or toxic origin and demonstrated the ability of giant follicle lymphadenopathy to change its histologic appearance and become polymorphous cell sarcoma or Hodgkin's disease. In 1946 reticulum cell sarcoma was introduced as a terminal outcome of this disease and it was demonstrated that the follicular pattern could be maintained unaltered into death (giant follicular lymphoblastoma)

Case Reports

Apparent Curability

Case 1 —R C , a white man aged fifty-six, was referred in 1943 because of a mass which had developed near the angle of the jaw on the left side The tumor appeared to be part of the parotid gland and was demarcated from the adjacent structures and not tender Other nodes were found in the neck, axillae, and groins The spleen and liver were not enlarged. The region of the parotid tumor was explored and biopsied A giant follicle lymphadenop-

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athy was diagnosed, and the patient received two courses of radiotherapy All palpable tumor masses disappeared, there has been no recurrence It is five years now, and the man is apparently well

Case 2 —E S , a white, thirty-one-year-old housewife, with two children, was first seen in 1942 She complained of a "bunch" in the throat of four weeks duration which was growing and causing a drawing sensation An enlarged lymph node was found along the right side of the neck and was completely excised There was no other lymphadenopathy nor any visceral enlargement The pathologic diagnosis was giant follicle lymphadenopathy proceeding into lymphosarcoma A course of nine x-ray treatments was given to the lateral neck region Six years have passed, and there has been no reappearance of the disease, no further treatment was necessary The woman has in the meantime developed a multiple sclerosis

Protracted Recurrent Course

Case 3 —E H (reported with Dr J H Hunt) was a white, unmarried woman of twenty-two when first seen in November, 1940 She was then admitted to the hospital for the removal of a tumor of the navel She had always known a mass to be present in the umbilicus, but this tumor had enlarged to the size f a plum within two to three months The tumor as excised and found to be a cyst, 1 cm in diameter, filled with yellow sebaceous material Microscopically, a stratified squamous epithelium was seen lining a wall composed of connective tissue, and the diagnosis of an epidermoid cyst was made Recovery was rapid and final. A urinalysis during that time showed numerous pus cells and occasional erythrocytes

The patient consulted the hospital for a second time in March, 1943, as a twenty-four-year-old, married, childless woman with a complaint of pain in the back which radiated down through the legs She was unable to stand erect for any long period of time There was a sense of weight and fullness in the abdomen These symptoms were of three weeks duration There had been a weight loss of 15 pounds and some transitory pruritus

Physical examination disclosed a few, slightly enlarged, cervical lymph nodes on both sides of the neck, being larger on the right side The abdomen was flat and soft, the liver and spleen were not enlarged An uncinate tumor mass was palpable to the right of the navel This tumor was irregular in outline, hard, and somewhat nodular It seemed to arise on the right side, in the midrectus line, descend U-shaped around and below the umbilicus, and extend to the left chondral margin terminating at the left paramedian line Both kidney regions were tender No lymphadenopathy was found in the groins nor in the axillae The examination of the rectum and the gynecologic survey were normal Reflexes and extremities were normal, lungs and heart were also normal

The initial impression was that of a horseshoe kidney but intravenous pyelography revealed good filling of both sides with no particular abnormality in either kidney The gastrointestinal series (fluoroscopy and serial plates) disclosed no evidence of any organic lesion within the bowel The x-ray examination suggested a retroperitoneal mass which was impinging on the pyloric portion of the bowel and on the hilar regions of the kidneys

Laboratory data included a normal urinalysis, adequate red cell count (4,300,000, 14 3 Gm), decreased white cell count (4,000) with a slight increase of the lymphocytes (polymorphonuclears 58, lymphocytes 38, monocytes 4), normal sedimentation rate, normal blood chemistry, and a normal glucose tolerance curve

A laparotomy was performed on the second day of hospitalization A moderate amount of serous exudate was present between the coils of the intestines, no adhesions were seen Inspection and palpation of each of the abdominal viscera disclosed no abnormal findings A thin-walled right ovarian cyst, 4 cm in diameter, found in the pelvis ruptured on mild manipulation In the retroperitoneum, at the level of the transverse colon, the tumor mass was located in the region of the pancreas from the posterior aspect of which the tumor appeared to arise The mass extended craniad into the lesser omental space, and caudad it could be palpated almost to the lumbosacral prominence In its breadth the tumor occupied practically the entire width of the retroperitoneal space It appeared to be a diffuse, homogeneous tumefaction interspersed with multiple discrete nodules The parenchyma was moderately soft in texture and gray-yellow in color The gross appearance and the topography of the tumor suggested multiple adenomata of the pancreas One of the nodules, about the size of an olive, was removed for study This specimen was encapsulated and contained a richly vascularized pedicle The abdomen was closed with the postoperative diagnosis of a retroperitoneal mesoblastic tumor

The specimen received by the pathologist measured 2 5 cm in diameter It was judged to be firm in consistency and gray-yellow in color Cut surfaces were devoid of any defining structural markings The microscopic sections showed that the tissue was a lymph node The follicles were increased numerically and dimensionally, the germinal centers were enlarged The sinuses were indistinct due to overgrowth of lymphocytes The capsule was intact and not involved by any infiltration The pathologic diagnosis was giant follicle lymphadenopathy

X-ray therapy (2,220 r) was given to the abdomen and lumbar regions from April 16 to 23, 1943, in 16 daily doses ranging from 120 to 160 r (200 kilovoltage peak, half value layer, 0 5 mm Cu and 1 0 mm. Al, 25 milliamperes, 50 Cm.) Already on April 17, noticeable diminution of the abdominal mass was recorded The woman was feeling stronger, and her disposition was cheerful, the tired feeling in the legs had disappeared From August 16 to 23, 1,000 r were given to the neck in five equal consecutive treatments because in the interim the cervical lymph nodes had enlarged bilaterally On August 23, no cervical nodes could be found, on the right side one small residual node was still noticeable The patient had gained 10 pounds and was well gen-

erally, the menstruation was regular, the abdomen soft, and no masses were palpable

The woman was seen at intervals thereafter All of her tumors had faded away, she felt strong and ambitious The patient became pregnant and was delivered on August 21, 1945, of a female child, weighing 7 pounds 13½ ounces, which has developed normally and is in good health

In February, 1946, she consulted Dr L F Craver because of malaise, reappearance of lymph nodes in the neck, and loss of weight She was judged as having responded well to previous irradiation and was given 700 r in two doses to the left side of the neck. In April, x-ray films of the pelvis were taken because of pain in the sacroiliac region, these were negative for bone changes In May, she received 350 r to combat a right inguinal node and the same dose to the anterior of the left upper mediastinum for what appeared to be a small signal node When examined in July, 1946, the nodes in the neck and groin had disappeared, and there appeared to be good control of the disease Dr Craver considered the case to be a generalized follicular lymphosarcoma, fairly radiosensitive "The prognosis may be fairly good for a few years more or less with good control of the disease, but one can only expect the usual outcome "[3]

By October, 1946, nodes had reappeared in the groins, in the axillae, along the neck bilaterally, and pre-auricular on the right side An intense course of radiation in 32 divided doses was given during the fall and winter In February, 1947, a check-up showed that the lymph nodes had again receded and were no longer palpable The general condition of the patient was found to be good, she had become amenorrheic When she was seen in 1948, several small nodes were found, and there was a secondary anemia

Change to Hodgkin's Disease

The authors have had no personal cases illustrating this metamorphosis. We would like to inform you of a unique case which has been mentioned twice in medical reports [4,5] It is an excellent example of the conversion of giant follicle lymphadenopathy into Hodgkin's disease The sequence was briefly as follows

Case 4.—A white woman who was born in 1885 had a tumor removed from her right groin in 1926 In May, 1934, an egg-sized mass was removed from the left groin No pathologic diagnosis was made at either occasion In October, 1937, a spindle-shaped tumor was excised from the left epitrochlear region This was diagnosed as giant follicular hyperplasia, and the case was classified as a probable Brill-Symmer's disease In February, 1940, a lymph node was removed from the right groin and reported as Boeck's sarcoid or tuberculosis

The patient returned again in 1941 for complaints which necessitated a partial gastrectomy Boeck's sarcoid was again diagnosed. A simultaneous liver biopsy revealed miliary sarcoid

In June of 1945, she was readmitted for a radical dissection of the right groin. The pathologic report this time was Hodgkin's disease All of the previous tissues were re-examined, and the original diagnoses were verified This case is, indeed, complex. Attention is directed to the initial giant follicular hyperplasia and the present Hodgkin's disease for which the patient is now being treated

This possibility of change into Hodgkin's disease has been adequately substantiated by Jackson and Parker [6] In their series of 39 cases that showed giant follicle lymphoma, seven later developed Hodgkin's granuloma and two developed Hodgkin's sarcoma

Change to Lymphosarcoma

This is apparently the most frequent transformation Soon after Brill *et al* published their observations, several reports appeared, emphasizing the outcome of giant follicular hyperplasia into lymphosarcoma (Baehr, Baehr and Klemperer, Sugarbacker and Craver, and Stout) [7-11] This evolution occurred so often that the disease assumed the name of giant follicular lymphosarcoma This designation indicates a single finality of form and prognosis Actually, giant follicular hyperplasia is an intermediate transitional phase capable of development into one of three directions (1) regression and cure, (2) persistence as giant follicle hyperplasia with intermittant recurrence, or (3) transformation into one of six other histologic forms There are then at least eight possibilities, of which giant follicular lymphosarcoma is only one Brill-Symmers disease as an eponym is applicable to the totality of phases and forms already enumerated While the disease is still in the intermediate stage of its development, giant follicle lymphadenopathy is the recommended nomenclature

Change to Reticulum Cell Sarcoma

Case 5.—D M , a white woman, when twenty-four years of age in 1936 developed a tumor mass in a breast and homolateral axillary lymphadenopathy A biopsy of a node disclosed numerical and dimensional overgrowth of lymph follicles without compression or obliteration of the intervening lymph sinuses The node was classified as giant follicle lymphadenopathy Following the biopsy, the breast lesion and the lymphadenopathy disappeared spontaneously

The patient required medical advice again four years later (in 1940) for "pains in the joints and bones" which she had suffered intermittently during six years preceding the biopsy In 1942 and 1943 she was again treated for complaints referable to the osseoarticular system

After five months of hospitalization, in 1943, a rib biopsy was performed, and her condition was recognized as a disseminated reticulum cell sarcoma of bone The woman died three months after the diagnosis was made and seven years after the biopsy disclosed giant follicle lymphadenopathy She had suffered pains in the bones and joints for twelve years

It might be said that the successive appearance of the two diseases in this individual was merely coincidental The authors prefer, however to interpret the two entities as interrelated The follicular lymphoma in this individual served as a herald node

for the subsequent reticulum cell sarcoma of the bone The giant follicle lymphadenopathy was a signal node indicating a derangement which then became manifest in the osseous system It is not to be interpreted that the affliction changed its anatomic site (lymph node to bone), rather, the disease remained in the same histologic substrate (lymphoreticular tissue) In the case presented, the association of the nodal follicular hyperplasia and the reticulum cell sarcoma was that of related conditions

Change into Giant Follicular Lymphoblastoma

Case 6—M H was a white woman, admitted in August, 1942, at the age of sixty-three, because of edema around the ankles and in both legs This was of three to four weeks standing and was the second such occurrence, the first having taken place a month previously and having receded spontaneously An x-ray examination at that time had disclosed "a large heart and enlarged kidneys" Dyspnea was present, there had always been some shortness of breath since a heart attack four years previous It was never so uncomfortable as at the time of this admission to the hospital In 1938, the patient had suffered an episode of severe precordial pain with radiation to the left shoulder and arm, but this required no medical care There had been no other ailments

Physical examination disclosed edema of both lower limbs and in the abdominal wall and an enlarged spleen extending five finger-breadths below the costal margin Lymph nodes were palpable in the posterior cervical chain, in the supraclavicular and axillary fossae, and in both inguinal regions The blood pressure was 180/90 The admission impression was *Hodgkin's disease or lymphatic leukemia* A lymph node was removed from the neck for diagnosis Microscopically, the typical architecture of giant follicular hyperplasia was noted

Deep roentgen therapy was commenced, and after one month the patient was discharged to the clinic for continuation of irradiation The patient did not fare well and returned in March, in May, and in July of 1943 Bilateral pleural effusion and abdominal ascites had set in, requiring frequent tapping in those months The lymph nodes and the spleen continued to enlarge, generalized anasarca appeared She died on July 9, 1943, at the age of sixty-four after eleven months of illness

The autopsy disclosed a disseminated, malignant lymphoma with the histologic pattern of the giant follicle type intact Splenomegaly with the same microscopic architecture was also present All lymph nodes were involved, the enlargements being preponderant in the mesenteric and retroperitoneal regions Lymph follicles had appeared in the liver, cancellous bone, lungs, and in areas generally deficient in lymphadenoid tissue In the kidneys the lesion was of a diffuse, infiltrative character, as was also the case in the heart, adrenal gland, uterus, and ovary The thyroid, bowel, and pancreas were not involved In this case the pathodiagnostic follicular pattern had remained unchanged from beginning to end

Prognosis and Radiosensitivity

Gall and Mallory in their cytologic classification of malignant lymphomas reviewed 618 cases and were able to include 42 instances of follicular lymphoma [12] These authors encountered five-year survivals which ranged from 3 per cent of the patients with lymphoblastic lymphoma to 53 per cent of those with follicular lymphoma. Four types (stem cell, clasmatocytic and lymphoblastic lymphomas, Hodgkin's sarcoma) offered a relatively poor prognosis with survival medians of six-tenths to one and one-tenth years. The remaining three types (lymphocytic, Hodgkin's and follicular lymphomas) tended to run comparatively slower courses with medians of two and four-tenths, three and two-tenths, and five years, respectively Hellwig studied 202 cases of malignant lymphoma for their cellular constitution [13] His five-year survival rates were almost identical, from less than 5 per cent in lymphoblastoma to about 50 per cent in follicular lymphoma

Gall, Morrison, and Scott surveyed 63 cases of giant follicle lymphadenopathy which were hospitalized during the period from 1917 to 1939 [14] They demonstrated five-year survivals in 47 per cent of the cases and ten-year survivals in 11 per cent For comparison the authors studied 50 instances of malignant lymphoma exclusive of the follicular variety In this control group 19 per cent survived five years and 4 per cent ten years The mortality for follicular lymphoma *of less than two years duration was 20 per cent*, in the comparative group 56 per cent lived less than two years Incidentally, those who succumbed to follicular lymphoma had lived five and two-tenths years on the average, of those alive at the time of their study the average duration of the disease was six and eight-tenths years

Recently, Stout, after reinvestigation of his material, could confirm the conclusion that the giant follicular tumors maintain a statistic advantage in comparison to reticulum cell and lymphocytic cell tumors of lymph nodes 36 8, 15 4, and 20 per cent, respectively, survived five years, while 15 8, 9, and 7 5 per cent, respectively, survived ten years [11]

The multicentricity of the foci and the initial site of the disease are additional determinant factors in the prognosis of the disease Individuals with solitary lymph node involvement do better than when a group or groups of nodes are involved As the disease progressively overtakes various regions and establishes multiple foci, the prognosis becomes graver Multicentricity of foci can overbalance a persistence of the structural pattern so that the disease can terminate fatally *even though the pathodiagnostic follicular*

pattern has been steadfastly maintained A striking feature which Stout demonstrated was the great difference in the ten-year cure rate between those cases which start in lymph nodes and spleen and those which are primary elsewhere "For the lymph nodes only 7 2 per cent were symptom-free at ten years while 25 7 per cent with tumors primary elsewhere were well over ten years after treatment "[11]

Radiotherapeutists are impressed with the conspicuous radiosensitivity of giant follicle lymphadenopathy Small to moderate dosages suffices to yield a therapeutic result Failures to respond favorably are rare [15] Rubenfeld in his follow-up of patients treated for giant follicle lymphadenopathy and for polymorphous cell sarcoma found 66 and 60 per cent, respectively, were well five or more years after start of radiotherapy [16,17] Previously, five-year survival rates were quoted at 47 to 50 per cent Rubenfeld emphasized the difference in the response between giant follicle lymphadenopathy and the polymorphous cell sarcoma derivative His follicular lymphomata receded quickly and required moderate radiation, while the sarcomatous variety regressed only after intense treatment and showed a lag period before response These dual features, the general radiosensitivity of the disease and the differences in the response of allied terminal forms, have a common pathoanatomic background

Brill-Symmers disease is a composite entity consisting of various phases and multiple morphologic manifestations. The disease has all the potentialities of a malignant condition, but the degree of malignancy, both pathologic and clinically, varies in the different subdivisions Of all the malignant lymphomas, giant follicle lymphadenopathy has a better prognosis than other forms in the group This disease develops and progresses slowly, its response to irradiation is gratifying This comparatively favorable course of giant follicle lymphadenopathy is determined by its morphology The prognosis of Brill-Symmers disease is an attribute of its structure. In its earliest form the disease begins as a lymph node hyperplasia histologically resembling the inflammatory-toxic type Fundamentally, the disease is characterized by a morphologic pattern that is a differentiated form of structural arrangement It is this degree of differentiation that determines the development and the radiosensitivity outcome In its early phases the disease is reversible or curable. When it has become transformed into a dedifferentiated structural modification, the course is irreversible, and the outcome is fatal. The development and prognoses of giant follicle lymphadenopathy are conditioned by its morphologic differentiation The prognosis deteriorates as the pattern of differentiation originally inherent in the disease disintegrates

Radiosensitivity does not always indicate curability While the disease responds in the beginning, it progressively becomes radioresistant Of those patients surviving five years, about one half to two thirds will not reach the ten-year mark, and the impression exists that even ten years is not a sufficient length of time to be sure that a malignant lymphoma may not reappear Although usually highly responsive to radiotherapy, most frequently the disease progresses slowly, taking the full course of a malignant neoplasm, and, in the experience of many, is invariably fatal under the methods of treatment now routinely available Life can be maintained, however, and in ever-increasing survival rates

Summary

1 Giant follicle lymphadenopathy is a composite condition of a potentially malignant and fatal disease. The multiplicity of phases and forms are enumerated

2 Cases are cited to illustrate some of these forms and to indicate the variation in the clinical course

3 Of the malignant lymphomas, giant follicle lymphadenopathy has a relatively favorable prognosis It is also strikingly radiosensitive

4 These features are attributes of its particular morphology differentiated forms of structural arrangement

5 The prognosis and the therapeutic response deteriorate as the pattern of differentiation originally inherent in the disease disintegrates

Discussion

Joseph C Ehrlich, M.D *New York City*—The practical aspects of follicular lymphoblastoma, as concerned with problems of therapy and prognosis, have been well worked out by studies in the past twenty years It appears that, as time goes on, fewer and fewer cases remain of which it may be said that complete regression without recurrence took place It is known that the disease may remain comparatively quiescent under therapy for as long as twenty years and still threaten to go into an invasive and malignant phase. While one cannot dogmatically assert that every instance of follicular lymphoblastoma must, of necessity, eventually terminate in a variety of malignant lymphoma, the consensus of experience makes this a safe prediction once the diagnosis is established

There is much less uniformity of opinion about the precise terminology, classification, and interrelationship with other varieties of lymphoma. The viewpoints expressed by Drs Cohen and Bergstrom, regarding the manifold developmental potentialities of follicular lymphoblastoma, have many supporters In addition to those referred to by the au-

thors, I might mention a survey of the material at the Army Institute of Pathology recently completed by Dr Philip Custer, who has kindly provided me with some statistics of a rather large series Of 1,190 malignant lymphomas received at the Institute between Pearl Harbor and VJ Day, 110 were classified as follicular lymphoblastoma, an incidence of a little over 10 per cent In all cases where follow-up data are available, the disease has either persisted or undergone transformation to lymphosarcoma of the round cell or reticulum cell varieties A few instances of transformation to lymphoid leukemia and Hodgkin's granuloma were also recorded These changes took place after some unpredictable interval of persistence as lymphoblastoma, and the conclusion was reached that total regression in this disease does not occur but that it may be expected either to persist as follicular lymphoblastoma or to undergo transformation, predominantly to lymphosarcoma The experience at Lebanon Hospital and Mt Sinai Hospital has been that all transformations take place in the direction of lymphosarcomatosis, and follicular lymphoblastoma is looked upon as a special category of lymphoma belonging to the group of lymphosarcoma Two cases developed a lymphoid leukemic blood picture

The discrepancy of experience may be the result of different viewpoints regarding the significance of the finding of follicular architecture in lymphomas It is a fact that early lesions of Hodgkin's granuloma, Hodgkin's sarcoma, malignant reticulosis, and certain leukemias may, at times, present a conspicuous follicular arrangement These cannot always be differentiated from follicular lymphoblastoma in which one expects to find not only a pronounced increase in the number and size of follicles but also rather characteristic small, compact, hyperchromatic, round and polygonal cells of the lymphoblastic series constituting the bulk of the cytologic elements in the swollen follicles In a recent experience, a patient with lymphadenopathy was subjected to a biopsy of a lymph node This gland condition was interpreted as follicular lymphoblastoma Some months later, a second node was excised and reported as Hodgkin's granuloma It is tempting to cite this as an instance of transformation However, another pathologist who examined the first lymph node interpreted it as Hodgkin's disease

It appears doubtful whether especially fine histopathologic criteria can settle this controversy Perhaps further developments in biologic technics like the leuko-agglutination of Steinberg and Martin, who reported that rabbit antisera to lymphosarcoma cells do not agglutinate cells of lymphatic leukemia, or other methods such as tissue culture and anterior chamber transplants may prove useful in promoting a more objective classification of the varieties of lymphoma

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INTERNATIONAL HEALTH PROGRAMS

The World Health Organization, now firmly established as a member agency of the United Nations, held its first World Health Assembly in Geneva in June and July, 1948 As a major part of the constructive work of the Assembly, provisional agenda for various international programs were drawn up and approved

The Committee on Programme placed malaria control first on the list of recommended activities in view of the high prevalence of the disease, then maternal and child health, tuberculosis and venereal diseases For further activities it was recommended that particular attention should be given to alcoholism, drug addiction and habit-forming drugs, hygiene of seafarers, influenza, nursing, nutrition, rural hygiene, and schistosomiasis

DEXEDRINE AND WEIGHT REDUCTION

E PHILIP GELVIN, M D , AND THOMAS H MCGAVACK, M D , New York City

(From the Endocrine Service, New York Medical College Welfare Island Dispensary Unit)

A LOSS of weight associated with a decrease of voluntary food intake has been noticed since the earliest experiments on the pharmacology of amphetamine sulfate Ulrich, who used amphetamine sulfate for the treatment of narcolepsy, and Davidoff and Reifenstein, who employed it for the treatment of depressed states, observed a loss of weight in most of their patients [1 2] Since then, many reports have appeared, most of them enthusiastic, describing the value of this drug as an adjunct to weight reducing regimes [3–10]

In most of these studies, the drug was administered in conjunction with a low calorie diet, Pilner going so far as to insist that it was of little use unless coupled with a dietary regime [3 4 6 8 10] Albrecht, however, was able to accomplish satisfactory weight reduction by use of amphetamine sulfate alone, the loss of weight being ascribed to a diminution of appetite with consequent lessening of caloric intake [5] Rosenthal and Solomon found that patients lost weight seven times as fast when diet was combined with amphetamine sulfate as they did when diet alone was used [8]

More recently, the dextrorotatory form of amphetamine sulfate has become available and is said to be more effective and less toxic than the racemic type [9] Colton concluded that the latter contains more of the cerebral stimulating factor, while the former exhibits more appetite depressing qualities However, this fine distinction has not been definitely established Harris and Ivey have found d-amphetamine sulfate approximately twice as potent as r-amphetamine sulfate [11]

The mechanism of appetite depression by amphetamine sulfate is still obscure It has been found that these drugs cause an increase in the emptying time of the stomach by decreasing the tonus of the stomach and by increasing that of the pylorus [12 13] However, the dry weight of the stool is not diminished, so there is apparently no decrease in absorption or assimilation [7] Anorexia and weight loss were unchanged after surgical ablation of the sensory nerves (vagi and thoracolumbar visceral afferents) of the gastrointestinal tract, a fact which suggests that the drug produces its effects through some central nervous system action.[11] This concept was tentatively confirmed when amphetamine sulfate failed to reduce the voluntary food intake of patients on whom a surgical frontal lobotomy had been performed [11]

Materials and Methods

Subjects—Thirty obese men and women regularly attending the Welfare Island Dispensary were selected for this study The period of observation varied from four to forty weeks, with an average of nineteen and six-tenths weeks Their ages ranged from fourteen to sixty-eight years Three were men, and 27 were women Twelve were white, and 18 were Negroes

Since all of the patients had been attending some other branch of the clinic before they were referred to us, their weights had been recorded for considerable periods of time No patient was accepted for this study if it was felt that a spontaneous loss of weight was occurring

Many were suffering from other conditions besides the obesity There was hypertension (systolic above 145, and/or diastolic above 90) in 14, diabetes mellitus in one, asthma in two, an inactive duodenal ulcer in one, and chronic nephritis in one

Procedure—On admission to the clinic, a complete history and physical examination were performed on each patient This examination always included the recording of height, weight, upper and lower measurements, span, circumferences at the neck, chest, waist, hips, and thighs, pulse rate, and blood pressure

Among the routinely performed laboratory determinations were a complete blood count, urinalysis, six-hour glucose tolerance test, blood cholesterol and esters, total serum proteins, basal metabolism, electrocardiogram, and x-ray of the skull for bony changes

Each patient was then given amphetamine sulfate by mouth in its dextrorotatory form (Dexedrine) * Every subject was given 5 mg , twenty to thirty minutes before each meal (15 mg daily) as an initial dose This was rapidly increased, if tolerated, to 10 mg before breakfast and lunch, and 5 mg before dinner (25 mg daily), then to 10 mg before each meal (30 mg daily) This latter dosage was not exceeded At each visit the patient was questioned about nervousness, insomnia, palpitation, or dizziness The blood pressure and pulse were checked frequently Patients were first seen weekly, then biweekly and, finally, after being stabilized at the maximum dosages of Dexedrine, every three or four weeks Patients were permitted to eat as they pleased, and fluids were not limited

* Generous supplies of Dexedrine were made available for this study through the courtesy of Mr Swain of Smith Kline and French Laboratories, Philadelphia.

TABLE 1 —AMOUNT AND RATE OF WEIGHT LOSS IN 30 OBESE INDIVIDUALS

Patient	Period of Observation Weeks	Weight (lbs.) Initial	Final	Total Lost	Average Loss per Week	Average Rate of Loss Maintained Weeks
C Ro	6	264	258	6	1 0	6
J Co	11	221	212	9	0 8	6
V M	16	194½	198½	Gain		
Q F	8	207	201	6	0 75	4
A P	18	157	146	11	0 6	5
B L	40	208	180	28	0 7	13
M C	40	189	168	21	0 5	12
L A	40	264	252	12	0 3	4
A T	24	163	150	13	0 5	10
I D	32	260	228	32	1 0	32
C R.	40	208	191	17	0 4	3
E G	6	175	169	6	1 0	3
L T	7	189	175	14	2 0	7
I S	7	197	183	14	2 0	7
L F	10	228	193	25	2 5	10
L C	8	230	226	14	1 7	8
M M	8	185	174	11	1 4	8
H T	9	219	204	15	1 7	9
S P	5	187	178	9	1 8	5
L S	4	222	218	4	1 0	4
F C	25	177	168	9	0 35	0
J R.	24	204	211½	Gain		
F R.	40	170	162	8	0 2	4
E M	30	196	178	18	0 6	8
W J	22	218	217	1		
J C	25	233	218	15	0 6	8
E F	28	155	138	17	0 6	11
J M	42	196	181	15	0 3	2
H J	8	267	253	14	1 7	8
C G	5	236	230	6	1 2	5

Results

Twenty-seven of the 30 subjects lost weight on the regime described above (Table 1) However, the total loss and rate of loss varied considerably Our standard for a satisfactory decrease in weight was set at a minimum of 1 pound a week From Table 1, it can be seen that only 13 subjects lost this minimum average amount throughout the entire period of observation, of whom ten were under observation for a period of eight weeks or less The suggestion that a satisfactory loss of weight during Dexedrine medication occurred only during the early phase of treatment led to a further analysis of the data for each individual After eight weeks of treatment 14 patients (47 per cent) had an average weight loss of at least 1 pound a week After ten weeks, eight patients (27 per cent), and after twelve weeks, seven patients (23 per cent) fell into this category Beyond this time, the number of patients averaging a loss of 1 pound a week decreased rapidly, until, after twenty weeks, only one patient was able to maintain this average (Fig 1) Figure 2 demonstrates the average loss of weight per person per week plotted against time From this graph, it can be seen that an average loss of weight of a minimum of 1 pound per week for the entire group was maintained for only eight weeks

Untoward effects of Dexedrine medication were observed in eight subjects and were mild in degree and exceedingly few These included insomnia in five instances, nervousness in four, and palpitation, dizziness, and tingling of the hands in one each A moderate increase in blood pressure was noted in five patients One individual had a rise in blood pressure from 164/78 to 230/104 while taking 30 mg of Dexdrine daily The dose of the drug was reduced to 15 mg daily, after which the blood pressure returned to its original

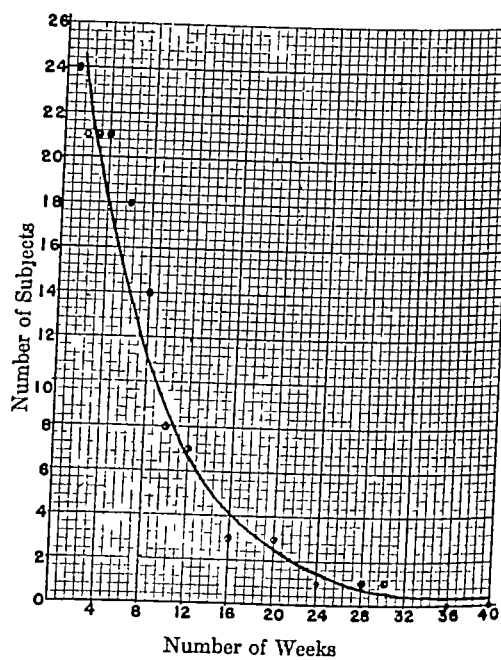
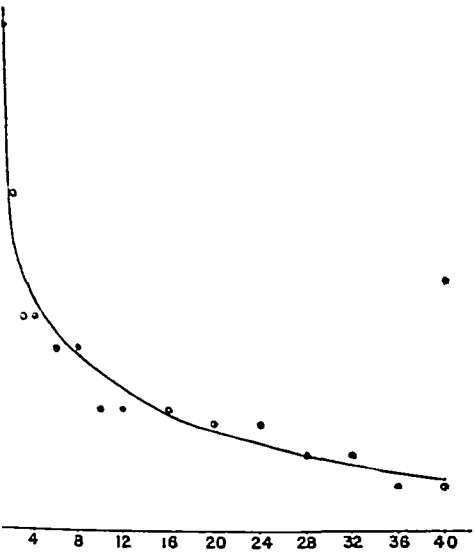


FIG 1 Number of subjects maintaining a loss of 1 pound or more weekly



The average weekly weight loss per subject in 30 subjects treated with Dexedrine.

within one week. The dosage of 15 mg was maintained for three weeks, and then increased to 30 mg daily without any ier significant change in blood pressure This the only patient in whom a decrease in the of Dexedrine was necessary All other manifestations were easily controlled with l doses of phenobarbital

should be noted that the subjects of this re- were clinic patients, all in the lower economic kets, for the most part intellectually under- leged and without exception tremendously weight Our private patients, most of whom business people, and not nearly so obese as e described above, have not tolerated large s of Dexedrine nearly so well They have plained mostly of "increased tension," eriness," and "insomnia" However, all tolerated 15 mg of Dexedrine daily, and more if small doses of phenobarbital were omitantly administered The appetite of ents in private practice has been depressed factorily by Dexedrine, and results have been dramatic than with the clinic group since ary instructions were simultaneously ob- ed

o significant changes in pulse rate were noted ty of the subjects

he laboratory and special diagnostic tests nerated above (Materials and Methods) were ated in nine of the subjects In no case was e any significant variation from the original ngs

All of the patients stated on direct questioning that their appetite was decreased while taking Dexedrine Moreover, several who did not keep appointments and consequently ran out of the drug volunteered the information that their appetite increased when the medication was not available

During the early phase of this study, it was necessary to substitute r-amphetamine sulfate for Dexedrine on several occasions It was found that there was no appreciable difference between the two in equal dosage, either subjectively or objectively Occasionally, a patient preferred the dextro form, while an equivalent small number preferred the racemic form. These findings are at variance with the conclusions of others who have found the dextro variety of amphetamine sulfate more potent [9 11]

Conclusions

In its simplest form, it may be stated that the weight of an individual is dependent upon the relationship between food intake and energy output Consequently, any regime which has as its object the reduction of weight should either decrease the former, increase the latter, or both In this series of experiments, the effect of Dexedrine upon decreasing food intake by reducing appetite was studied The effectiveness of this method was measured by the amount and rate of weight loss From the data obtained, it can be concluded that Dexedrine is effective in causing a loss of weight In this group of patients toxic manifestations were infrequent, usually mild, and never serious It was the subjective impression of most patients that the appetite was definitely decreased However, since most obese patients are, a priori, victims of faulty eating habits, this medication alone was not completely effective in restoring weight to ideal levels It would appear that a properly regulated dietary regime is also necessary, if a satisfactory rate of weight loss is to be maintained

Diets low in calories (1,000 to 1,200 calories) were given to several of these patients following the period of observation covered in this study However, since it was impossible for most of them to adhere to a diet, either for intellectual or economic reasons, no additional conclusions can be drawn

Summary

The effect of Dexedrine on weight reduction was studied in 30 obese individuals It was found that satisfactory weight reduction (a minimum of 1 pound a week) could be maintained for an average of approximately eight weeks After that, the weight soon became stabilized at a lower level, and a satisfactory rate of weight reduction

could not be maintained on the dosage of Dexedrine used (a maximum of 30 mg daily) Toxic symptoms were infrequent and mild No significant change in the blood count, urinalysis, basal metabolic rate, electrocardiogram, glucose tolerance, blood cholesterol, and blood proteins was discernible in nine patients on whom these tests were performed before, during, and after medication

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VISCERAL INVOLVEMENT IN MULTIPLE MYELOMA

ALVIN J GORDON, M D , and JACOB CHURG, M D , New York City
(From the Department of Pathology Laboratories of Mount Sinai Hospital)

VISCERAL involvement in multiple myeloma, other than by direct extension from a bone lesion, was considered a rarity until recent years A number of isolated cases can be found in the literature, but systematic studies have been lacking [1-3] Lowenhaupt in 1945 reported finding "plasma cell infiltration" of the spleen and lymph nodes in every one of 12 cases of multiple myeloma, without, however, specifying the exact nature of these plasma cells [4] On the other hand, Lichtenstein and Jaffe could find only two instances of visceral lesions among their 18 autopsied cases [3]

For the purpose of studying the incidence of visceral involvement, we reviewed 30 consecutive cases of multiple myeloma coming to autopsy at the Mount Sinai Hospital between the years 1933 and 1947, and found, contrary to expectation, that such involvement could be established in nearly three fourths of all cases

Tabulation of reports in the literature shows that the viscera most commonly involved are the spleen, lymph nodes, and liver [1] In our series, 22 cases showed lesions of the latter organs Usually, all three were involved In nine of these 22, myeloma cells were found also in other viscera

The presence of lesions could be established in ten cases on the basis of gross examination alone Such lesions were often not striking and could easily have been overlooked In half of this group there were, particularly in the liver, single or multiple, scattered, grayish-white nodules, 0 1 to 1 cm in diameter In the remaining five cases involvement was much more pronounced, consisting of streaks or solid, poorly circumscribed areas of tumor tissue, obliterating the normal architecture of the liver or spleen, or converting the involved lymph nodes into huge fused masses The largest spleen weighed 2,000 Gm , and the largest liver weighed 3,300 Gm

In seven of the 30 cases myelomatous infiltration of the spleen or lymph nodes could have been suspected on gross examination because of moderate enlargement and increased consistency of the organ, loss of normal markings, and disappearance of the follicles The significance of these changes was not realized until the present study was far advanced The presence of lesions in this group, as well as in five other cases showing no obvious gross changes, was established only by microscopic examination

The nature of suspicious looking cells in sections of viscera could be readily recognized in some of the cases All that was necessary was to compare them carefully with the cells of the bone tumor In other instances, however, the appearance of the myeloma cells was modified by postmortem changes, poor fixation, action of acid in the process of decalcification, and other similar artificial factors, so that many of the

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identifying features were obscured Unless such myeloma cells occurred in true nodules, even if these were of microscopic size, their identity could be definitely established only by the presence of special features, such as unusually prominent nucleoli, multinucleated forms, or characteristic nuclear and cytoplasmic inclusions Among the latter were eosinophilic globules in the cytoplasm, basophilic granules following stilbamidine treatment, and rod-shaped bodies in the nucleus [5]

On microscopic examination of the liver, myeloma cells were found in the sinusoids and, considerably less frequently, in the periportal fields When sufficiently numerous, they compressed the liver cords, producing atrophy of the cells and forming grossly visible nodules and gray streaks

In the lymph nodes individual myeloma cells could be seen within the medullary cords and interfollicular areas as if replacing individual lymphocytes As the number of myeloma cells increased, the lymphocytes decreased, germinal centers disappeared, and the architecture became obscured Small nodules of tumor cells occurred within the pulp and particularly in the sinusoids Eventually, the entire lymph node was replaced by the tumor cells in leukemic fashion Infiltration of the capsule was noted on occasion

Changes in the spleen were similar to those seen in the lymph nodes Myeloma cells lay in the sinusoids, either in close approximation to the lining endothelium or filling the lumen They also appeared in the pulp cords, often congregating around the small arterioles and the trabeculae The architecture of the red pulp became obscured, while the follicles decreased in size and number and finally disappeared Distribution of the myeloma cells was often uneven, producing the previously mentioned gray areas or even true, sharply defined nodules However, when infiltration was diffuse and even, the appearance of the organ was very similar to that seen in leukemia

In nine cases, myeloma cells were observed in organs other than those of the hematopoetic system As mentioned before, in all of these cases the hematopoetic organs were also involved In four instances tumor cells merely lay free in the capillaries of the renal medulla or the lung The fifth case presented a small focus in the tonsil. This may indicate the need for more thorough investigation of the tonsils in all cases of multiple myeloma In the sixth case, there was infiltration of the renal parenchyma and a polypoid nodule in the colon In the seventh, small, sharply circumscribed nodules appeared in the renal cortex, renal capsule, pleura, and periaortic fat The eighth and ninth cases were examples of widespread invasion of various organs (lung, diaphragm, epicardium, subcutaneous tissue, and voluntary muscles in one and peritoneum, pleura, lung, kidney, testis, and periadrenal fat in the other), in addition to massive splenomegaly, hepatomegaly, and generalized lymphadenopathy

Among our 30 cases, eight, or 27 per cent, were classified as showing no visceral involvement In some of them suspicious-looking cells were present, particularly in the spleen, but all our criteria were insufficient to prove their myelomatous nature A few cases showed rare scattered myeloma cells in larger vascular spaces of the spleen These cells, as well as the cells found in the renal and pulmonary capillaries (see above), were undoubtedly brought by the blood stream It is known that myeloma cells very frequently occur in the blood [6] Blood smears were available to us in eleven of our cases, and five of them showed myeloma cells varying in amount from less than 1 to over 70 per cent of all white cells Finally, there were cases in which no myeloma cells could be found in the viscera, despite the fact that autopsies were performed very soon after death, tissues were well fixed, and the sections were of excellent quality Obviously, visceral involvement is not as constant, nor, generally, as massive as involvement of the bone marrow Perhaps the former represents an extension of the latter in the sense that the stimulus causing proliferation of the myeloma cells in the marrow eventually acts upon the reserve hematopoetic tissue If this is true, the occurrence of visceral lesions would be conditioned by the intensity of the stimulus on one hand and by individual responsiveness of the reserve tissue on the other hand

Summary

1 In addition to the bone marrow, other organs of the hematopoetic system (spleen, liver, and lymph nodes) are involved in a majority of cases of multiple myeloma

2 Infiltration of other viscera occurs but more rarely

3 Careful cytologic study is often necessary to establish the presence of visceral lesions

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Changes in the spleen were similar to those seen in the lymph nodes Myeloma cells lay in the sinusoids, either in close approximation to the lining endothelium or filling the lumen They also appeared in the pulp cords, often congregating around the small arterioles and the trabeculae The architecture of the red pulp became obscured, while the follicles decreased in size and number and finally disappeared Distribution of the myeloma cells was often uneven, producing the previously mentioned gray areas or even true, sharply defined nodules However, when infiltration was diffuse and even, the appearance of the organ was very similar to that seen in leukemia

In nine cases, myeloma cells were observed in organs other than those of the hematopoetic system As mentioned before, in all of these cases the hematopoetic organs were also involved In four instances tumor cells merely lay free in the capillaries of the renal medulla or the lung The fifth case presented a small focus in the tonsil This may indicate the need for more thorough investigation of the tonsils in all cases of multiple myeloma In the sixth case, there was infiltration of the renal parenchyma and a polypoid nodule in the colon In the seventh, small, sharply circumscribed nodules appeared in the renal cortex, renal capsule, pleura, and periaortic fat The eighth and ninth cases were examples of widespread invasion of various organs (lung, diaphragm, epicardium, subcutaneous tissue, and voluntary muscles in one and peritoneum, pleura, lung, kidney, testis, and periadrenal fat in the other), in addition to massive splenomegaly, hepatomegaly, and generalized lymphadenopathy

Among our 30 cases, eight, or 27 per cent, were classified as showing no visceral involvement In some of them suspicious-looking cells were present, particularly in the spleen, but all our criteria were insufficient to prove their myelomatous nature A few cases showed rare scattered myeloma cells in larger vascular spaces of the spleen These cells, as well as the cells found in the renal and pulmonary capillaries (see above), were undoubtedly brought by the blood stream It is known that myeloma cells very frequently occur in the blood [6] Blood smears were available to us in eleven of our cases, and five of them showed myeloma cells varying in amount from less than 1 to over 70 per cent of all white cells Finally, there were cases in which no myeloma cells could be found in the viscera, despite the fact that autopsies were performed very soon after death, tissues were well fixed, and the sections were of excellent quality Obviously, visceral involvement is not as constant, nor, generally, as massive as involvement of the bone marrow Perhaps the former represents an extension of the latter in the sense that the stimulus causing proliferation of the myeloma cells in the marrow eventually acts upon the reserve hematopoetic tissue If this is true, the occurrence of visceral lesions would be conditioned by the intensity of the stimulus on one hand and by individual responsiveness of the reserve tissue on the other hand

Summary

1 In addition to the bone marrow, other organs of the hematopoetic system (spleen, liver, and lymph nodes) are involved in a majority of cases of multiple myeloma

2 Infiltration of other viscera occurs but more rarely

3 Careful cytologic study is often necessary to establish the presence of visceral lesions

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TESTICULAR TUMORS

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IT IS the purpose of this paper to consider the tumors of the testis seriatim in the order of their probable origin from various elements of the gonad and its adnexa. In this way there is an automatic classification which is based on the sound principles of anatomic structure and not merely on the less satisfactory foundation of morphologic appearance under the microscope Such a classification has already been promulgated by Friedman and Moore, but there is some room within its frame for expansion and addition.[1] They, too, have apparently recognized the value of considering anatomic units of an organ as potential sources of its various tumors, a method of thought which not only simplifies classification but clarifies understanding The malignant group of tumors, which will be called "dysgerminoma" in this paper, has all too long gone under a variety of names that have successfully confused clinicians, if not pathologists

Testicular Parenchymal Tumors

The group of tumors arising from the testicular parenchyma has been named "gonocytoma" by ' ı of Copenhagen, it is not peculiar to ..ɔ women have analogous growths, aderived from the same primordium (the ·¬ body) [2] These have long been known 'dysgerminomas," and, for that reason, it ٩ well to retain that terminology and to ·ply it to the similar growths in the testis

Seminoma —The simplest and most frequently observed of this group (occurring in about the same percentage of cases as the teratocarcinoma) is the seminoma Its origin has been disputed for a long time, and it is still questionable whether it arises from spermatogonia of the testis or from primitive germ cells which (naturally enough) precede these and resemble them quite closely At all events, its appearance strikingly resembles that of testicular tissue gone awry, it is also one of the better differentiated members of this group Grossly, it is usually about the size of the testis or considerably larger before it is noticed by the patient It is a very firm, fairly well-outlined growth and, on section, light brown and more fibrous on gross inspection than it proves to be under the microscope

Microscopically, it comprises tubular or alveolar spaces in which ovoid or spherical cells are packed fairly closely or, less often, somewhat loosely They resemble spermatogonia or germ cells according to the bias of the observer Situated in the stroma of the compartments are numerous lymphocytes that are seldom absent, Ewing's "lymphoid stroma." More rarely, foreign body giant cells may be noted among those of the tumor, a phenomenon observed in dysgerminomas in women as well. The size of the cells vary from large to relatively small, according to the tumor, a fact which has led some observers to correlate them with different orders of spermatogonia Occasionally very small cells with dense, pyknotic nuclei suggest spermatids

While the growth is indubitably malignant, it is not so much so as are the other members of this group

Embryonal Carcinoma —The second member of this category of dysgerminomas is a tumor which is apt to show a good deal of whitish necrotic material on gross inspection and is also apt to grow more rapidly than the seminoma. On microscopic examination it is found to consist of meandering cords of more or less columnar cells with pale cytoplasm and vesicular nuclei that weave about through a loose, connective tissue stroma The growth has the potentiality of metastasizing to distant parts of the body relatively early, and the metastases may surprise the pathologist by proving to be morphologically more similar to the next tumor in this group, the choriocarcinoma, rather than to the embryonal carcinoma whence they presumably came We had one such example in New York Hospital where the choriocarcinomatous metastasis was found on necropsy at another hospital The veins about the suprarenal were effectually plugged with it As this tumor is one step down the scale of differentiation from the seminoma, it is correspondingly more malignant Friedman and Moore found it to constitute 19 per cent of the tumors in their series of 922 cases It thus ranks second in frequency to seminoma and teratocarcinoma, each of which represented 35 per cent

Choriocarcinoma —This tumor represented only about 0 4 per cent of the series just quoted, although tumors showing choriocdrcinomatous elements mixed with others were not uncommon It is histologically identical with choriocarcinoma in women, whether it originates in the uterus and vagina as a truly chorionic tumor or in the ovary as a dysgerminoma It grows very

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rapidly and is apt to be very hemorrhagic Microscopically, it is found to comprise spherical masses of moderately large, often very bizarre replicas of the Langhans cells of the chorionic villi In well fixed specimens these are seen to be enclosed in a syncytial layer of cells which exhibit less metaplasia and closely resemble chorionic syncytia of the placental villi This is the most malignant variety of dysgerminoma

Teratocarcinoma—This tumor, one of the two better differentiated members of the group, occurs in a younger age group than does the dysgerminoma, but it has an equal incidence It grows to considerable size and is usually larger than the usual dysgerminoma when operated on Its gross appearance is rather heterogeneous and nodular, and the growth may contain bits of bone or cartilage visible to the naked eye Under the microscope it is seen to comprise well differentiated areas of bone, cartilage, skin, nervous tissue, and other recognizable histologic elements, and, in scattered foci, masses of totally undifferentiated cells most closely comparable to those of embryonal carcinoma The tumor is often called "malignant teratoma" It is as malignant as its most malignant group of elements, and the fact that much of it shows good differentiation and appears to be a simple teratoma makes no difference in the poor prognosis

Teratoma.—This uniformly well differentiated neoplasm of the testicular parenchymal group of tumors is the teratoma, or "monstrous tumor" It comprises 7 per cent of Friedman and Moore's series and is seldom seen in our hospital. It may attain considerable size but grows much more slowly than any of the tumors we have thus far considered. It is distinctly heterogeneous in its gross make-up, and under the microscope it is essentially similar to any other teratoma or "dermoid cyst" Lacking any groups of malignant, undifferentiated cells, it is nonmalignant

It has been the custom in New York to call almost any testicular tumor "teratoma", this should be strongly decried From the standpoint of the writer there is only one teratoma, and that is the well differentiated, nonmalignant neoplasm just described The term "embryoma" is also sometimes applied to these tumors, and since this means one of the dysgerminomas in one city and denotes an extraordinarily well differentiated and fetus-like growth in another, it should be jettisoned as ambiguous!

It will be evident to one familiar with pathology that this group of tumors merits Theilum's designation of "gonocytoma" as its members are found in the testis and ovary alike and presumably stem from elements in the Wolffian body that would ordinarily produce male gonads The fact that they may be followed from more or less chaotic structures through a course of increasingly good differentiation to something a little less than an embryo might argue that they represent phases in the development of germinal cells from the genital ridge The older theory, to the effect that the better differentiated members of the group, such as teratoma, represent a sort of parthenogenesis, might also appear to be strengthened by the fact that gonadotropic hormones are increased in the blood and urine of patients suffering from such tumors Such a parthenogenesis, however, has yet to produce an intratesticular fetus!

Tumors of Rete Testis

Ordinary adenomas of the rete testis would appear to be a possibility, but they are rarely, if ever, seen, carcinomas arising, presumably, from a malignant transformation of epithelium in this body are rare, but a few have been recorded

Androblastoma—Theilum recently described a unique case of a tumor developing from the primitive rete which he calls "androblastoma"[2] In an orchiectomized testis, removed in connection with prostatic carcinoma, we discovered a tiny example of such a tumor which had given rise to no symptoms In Theilum's case, however, the growth was large, the patient showed feminizing changes, with gynecomastia, lack of hair on the face, and a mildly feminine habitus, libido and potency were lost That tumor was the size of a goose egg and rather meaty, yellowish in color, and not homogeneous Parts of it, later found to be filled with lipidized cells, were bright yellow Under microscopic examination it was found to be identical in its histology with the arrhenoblastoma of the female, it also contained the heavily lipidized areas similar to the "folliculome lipidique" or "adrenal cell tumor" of gynecologic literature The growth was composed of long tubules comprising cells with small nuclei, some of them having the appearance of neural rosettes on cross section, thus resembling mesonephric tubules or the structures so often noted in Wilms' tumors Here again we are faced with a growth common to both sexes The fact that it is feminizing in the one and masculinizing in the other does not disturb Theilum, who points out that it may be noted in connection with other gonadial tumors Androblastoma is a newcomer to the literature, but it is a most interesting and instructive one

Before leaving this part of the discussion, it might be well to point out the similarity between the testicular tumors thus far considered and certain ovarian tumors and also some of the embryonal group of renal growths As they are

all closely connected with the developmental and involutional phases of the mesonephros, this is not particularly strange

Tumors of Epididymis and Vas Deferens

Here again, adenomas are potentially possible but practically nonexistent, carcinoma of the epididymis has been noted occasionally In this case we are probably dealing with a more orthodox development of carcinoma from the epithelium of adult ducts, paralleling that which is seen in tumors of the breast or stomach, for example

Tumors of Interstitial Gland

These are rare and are mentioned only for the sake of completeness Ewing cites instances of Leydig cell tumors in the literature, but they are seldom seen in practice [3] They are dark brown and, under the microscope, consist of cells that are pigmented, granular, and much like those of the glands from which the tumors originate

Tumors of the Tunica Vaginalis

Mesothelioma—For a long time tumors have been encountered at the junction of the epididymis and vas, springing from the tissue over these and producing conical and stony masses that lie with their apices directed upward along the cord Grossly they resemble malignant growths on account of their adamantine consistence and their intimate infiltration of the cord Microscopically, they are found to be chiefly fibrous with numerous widened sinuses, often lined by flat, endothelioid cells and containing what appears to be coagulated lymph They were first known as lymphangiomas and then, because of their tendency to recur, as "lymphangiosarcomas" This is very lax classification, clinical features, in the absence of morphologic confirmation, should not influence the pathologist toward calling a tumor by a name not justified by histologic criteria such as metaplasia and mitotic figures Infiltration, too, is small justification, since it is also shown by certain fibrous and nonmalignant growths, such as the desmoid fibromas

The fact that some of the channels in the growth are lined by plumper cells caused many of us to hesitate—were they endothelial or epithelial? Masson has apparently solved the riddle by attributing them to mesothelial overgrowth and distortion [4] He found the tumors in both sexes, in the female they lie over the uterus and tubes and apparently take their origin from peritoneal mesothelium

Malignant Mesothelioma—One instance of this has been seen by the writer, and the case has not been published, except for mention in a textbook. The patient was an old man who had a tumor, 10 to 15 cm in diameter, arising from his epididymis and overlying a tiny and atrophic testis which seemed to be entirely uninvolved and measured about 3 cm in long diameter The growth exhibited extensive necrosis and great proliferative activity and brought about the death of the patient through multiple metastases Microscopically speaking, it was composed of solid masses of undifferentiated cells growing in alveolar spaces and fulfilling in their appearance the hypothesis that they might represent malignant transformation in the mesothelial elements of a mesothelioma Mitoses were abundant The diagnosis was made in consultation with an observant and quick-witted pathologist from a neighboring hospital, otherwise the tumor might have passed as a carcinoma of the epididymis.

Conclusions

This, then, carries us out of the anatomic boundaries of the testis and its conductive apparatus In covering the growths that occur between the seminal tubules and the vas deferens, it is believed that nothing has been omitted, if we except metastatic tumors such as leukosarcoma in leukemia Such growths must be kept in mind, but they are not intrinsic to the testis and are usually very rarely encountered The classification thus arrived at is, at least, orderly and descriptive, it correlates several of the gonadial tumors common to both sexes, and it relies relatively little upon unimportant morphologic differences

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MIDDLE AGE

Middle age brings its annoying four b's
Baldness, bifocals, and bulges,
With bridgework, by gum!

Most annoying to some—
Or so our respondent divulges.

—*Anonymous*

CORONARY DISEASE IN WOMEN

Sol Glotzer, M D , and Henry Wolfer, M D , F A C P , Brooklyn, New York

(From the Medical Services of Kings County Hospital)

THE present study was made in the hope that the causative factors related to myocardial infarction in women would be given prominence Of particular interest was the role played by metabolic diseases and hypertension.

During a period of six and one-half years, from January, 1940, to June, 1946, the records from all services at the Kings County Hospital included a large number of women in whom a diagnosis of coronary occlusion and/or myocardial infarction were recorded at death Of these, 37 were necropsied and constitute the basis for this phase of the report Before continuing with the analysis we should like to clarify the terminology to be used Diagnostic names are still used rather loosely in this group of cardiac diseases Our charts contained clinical diagnoses of coronary occlusion, coronary thrombosis, and myocardial infarction, and it was obvious that no distinction was being made We, therefore, included all such cases in one large group which we call coronary occlusion and/or myocardial infarction

Thirty-five of our cases showed such lesions One of the remaining two was admitted with a history of precordial pain radiating to the left elbow of two week's duration and an acute attack of precordial pain accompanied by cyanosis and pulmonary edema three days before admission. Death occurred twenty-four hours after admission. The electrocardiogram was interpreted as posterior wall myocardial infarction. Marked myocardial fibrosis was found with no infarction or occlusion The second case complained of dyspnea and epigastric pain of two weeks duration and died of pulmonary edema The electrocardiogram showed anterior wall infarction The coronary arteries were patent but sclerotic, and no occlusion or infarction were found We have felt it reasonable to include these cases in our analysis, since such occurrences are occasionally reported

Only one woman in the entire group was Negro She was fifty-one years old and had severe hypertension for many years Hemiplegia had occurred at twenty-seven and at fifty years of age, and her history included several episodes of cardiac failure during the year preceding admission Retinal examination revealed choked disks with fresh and old hemorrhages, spastic arteries, and dilated veins Electrocardiogram showed a left ventricular strain pattern, and the heart weighed 410 Gm at necropsy The only clinical attack of precordial pain occurred two hours before death Necrosis was found at the apex of the left ventricle with incomplete occlusion by sclerosis of its feeder branch of the anterior descending branch of the left coronary artery No thrombus was found On work Houlobeck did in the South, he found 44 of 117 necropsied infarctions in his series to be Negroes [1] It is difficult to correlate the paucity of Negro women in our series with the large number of Negro patients admitted to the hospital in recent years

The age distribution showed a peak between fifty and eighty years, with 32 of the 37 cases being almost equally divided among those three decades The youngest was forty-seven, four were in the eighty-one to ninety-year group, and the oldest was eighty-seven years Among the nine diabetics in the series, the age ranged between fifty-seven and seventy-six years with only two patients below sixty In the known hypertensive group, numbering 18, fifteen were in the sixth, seventh, and eighth decades The average age for the entire group was sixty-seven and seven-tenths years, for the diabetics sixty-six and seven-tenths years, and for the known hypertensives sixty-five and two-tenths years, indicating slight differences These averages are somewhat higher than those reported by Masters who reviewed the literature and found the average age for women dying of coronary occlusion to be fifty-six years as compared with the over-all average age in both sexes of fifty-four years [2] He found the peak decades in 112 women to be the sixth and seventh with six cases under forty Coronary disease has generally been found to occur ten years later in women than in men [3] While Master's group does not bear this out, our average age of sixty-seven and seven-tenths years is significantly higher than his over-all average of fifty-four years Mintz found an average age of sixty-two and four-tenths years in 180 females with recent infarction [4]

Dublin's statistics for the period of four years from 1931 to 1934 shows a lower mortality for women, 3 5 per 100,000 as compared to 16 per 100,000 for men [5] He points out that the relative mortalities of men and women approach each other as the higher age groups are reached At the age period forty-five to fifty-four, the ratio of men to women is 4 1, at fifty-five to sixty-four, 2 5 1, and at sixty-five to seventy-four, 1 84 1 White and Negro women have the same mortality curves

The reason for this age difference is not certain

but may be related to the comparative incidence of atherosclerosis Willius found an increase in blood lipoids in women with coronary disease [3] He suggested that, since the storage of lipoids is increased during pregnancy, the mechanism of lipoid metabolism might be more efficient and so account for the lowered tendency to vascular sclerosis He also found coronary sclerosis in 33 6 per cent of men and in only 18 8 per cent of women in consecutive necropsies, while De Porte in a study of heart disease found coronary sclerosis in 23 7 per cent of 893 men and in only 16 per cent 933 women.[7]

Diabetes mellitus was present in nine of the 37 cases (24 3 per cent), with ages ranging from fifty-seven to seventy-six years, averaging sixty-six and seven-tenths years as compared with the total average of sixty-seven and seven-tenths years Old occlusions were found in two recent infarction in seven of these patients Four of the nine had an associated previously known hypertension Of these, three showed recent infarction The other case showed only myocardial fibrosis along the course of coronary vessels which were markedly narrowed by atherosclerosis At one point sclerosis completely occluded the vessel The heart weighed 460 Gm and was heavier than the other three (300, 300, and 400 Gm , respectively) This high incidence of diabetes is in accord with the statistics of many other observers Coronary sclerosis is found with greater frequency in diabetics than in non-diabetics Root studied the coronary vessels of 316 diabetics over forty years of age and found occlusion in 38 2 per cent of men and in 32 per cent of women as compared with the figures 9 9 per cent for men and 4 9 per cent for women in 152 nondiabetics [8] Enklewitz found coronary occlusion in 31 8 per cent of 261 diabetics [9] Stearns found coronary sclerosis in all of 50 diabetics, of whom 31 were women, and in only 37 per cent of nondiabetic controls [10] He also noted occlusions in 19 of 31 diabetic women and in only 11 of 145 nondiabetic women In Master's series of 112 women with coronary occlusion, 26 8 per cent has diabetes [2] It is apparent that the occurrence of diabetes in women has a statistical significance in susceptibility to coronary occlusion

In a hospital serving an economically poor section of the city, such as that under consideration, many patients are admitted in extremis, and complete accurate histories are often difficult to obtain Without a history of hypertension it is frequently impossible to determine whether the blood pressure of a patient in shock was previously elevated The incidence of hypertension in our series is, therefore, a conjectural rather than an absolute value Eighteen of the 37 patients (48 6 per cent) were definitely hypertensive at some time prior to admission, considering a systolic level over 145 mm and a diastolic over 95 as abnormal The remaining 19 cases were carefully studied for such evidences which could be considered as pointing to previous hypertension. For the purpose of simplicity, this group will be referred to as "unknowns," while those with definite hypertension will be called "knowns." The average heart weight of the "known" groups was 464 Gm with a range of 300 to 690 Gm., while the "unknowns" ranged from 300 to 600 Gm. with an average of 441 Gm. Little difference existed in the age groupings, except that three of the "unknowns" and only one of the "knowns" fell in the eighty-one to ninety group

Several factors were analyzed Cardiac hypertrophy can safely be assumed only when the heart weight greatly exceeds normal, since normal values in themselves are difficult to evaluate. Body height and weight have been correlated with cardiac weight, and a wide range of normals has been reported in various series The only accurate method is to measure individual muscle fibers, and, since this was not done, heart weight must be relied upon for our survey Zeek studied the weight of the normal heart in 224 women and found a variation from 150 to 374 Gm [11] He cites figures from other analyses in which the combined variations are from 110 to 367 Gm with a combined average of 263 Gm. It would then seem reasonable to consider any heart weighing more than 400 Gm as definitely hypertrophied, although Peery used 500 Gm. as the upper limit of normal in his study [12] Five of our unknowns had hearts weighing 500 Gm. or more, ten others weighed between 400 and 500 Gm which placed 15 of the 19 in the category of hypertrophied hearts Using Zeek's tables, in which he correlated body length with heart weight in normal individuals, we obtained for the remaining four cases the figures shown in Table 1 Accordingly, we can consider all 19 of our unknowns as having cardiac hypertrophy

TABLE 1 —CORRELATION OF BODY LENGTH WITH HEART WEIGHT IN FOUR CASES ACCORDING TO ZEEK'S TABLES

Case Number	Body Length (Cm.)	Estimated Heart Weight (±30 Gm.)	Actual Weight
6	152	249	300
25	162	267	350
29	145	236	350
9	166	274	390

Many factors other than hypertension can increase cardiac weight No evidences of significant amounts of edema fluid or inflammatory exudate was found in these hearts In the four borderline cases mentioned above, one showed myocardial fibrosis with several areas of necrosis of muscle bundles, chronic passive congestion,

and mild pulmonary edema Another had a flabby fibrotic myocardium with bronchopneumonia and 200 cc of fluid in the left pleural sac The third had a large infarct with bloody pericardial fluid, and the fourth had an infarct with myocardial fibrosis, mild pulmonary edema, and cardiac failure

The effect of calcific disease of the aortic valve on heart weight was studied by Karsner and Koletsky and in 200 cases the average heart weight was 512 Gm [13] Where calcific valvular lesions existed without deformity, the average weight was 453 55 Gm and rose to 529 Gm if deformity or stenosis were present Simple calcification of the aortic valve, therefore, is not to be considered a significant cause of more than slight hypertrophy unless associated with deformity In our 19 unknowns the description of the valves included the presence of thickening, calcification, and fusion of the commissures Whether sufficient fusion existed to cause actual stenosis could not be ascertained in most of the reports Only three were labeled "fusion," and their weights were 550, 430, and 500 Gm each They were excluded as having a sufficient causative factor for hypertrophy other than hypertension, even though it is not likely that the extent of deformity is adequate to account completely for the amount of hypertrophy Two other cases had normal valves and weighed 390 and 400 Gm. each

Whether coronary sclerosis alone can cause cardiac hypertrophy is open to final decision Blood flow through the coronary vessels may conceivably be reduced sufficiently to cause ischemic weakness and increased stretching of the muscle in diastole, an effective stimulus to hypertrophy Kahn and Ingraham found increased heart weight in cases with moderate or marked coronary sclerosis [14] Shohet *et al* also found cardiac hypertrophy in 122 necropsies in which all other factors responsible for hypertrophy except coronary disease had been eliminated [15] While it may be causative, the extent of hypertrophy is certainly not very great Nathanson reports 45 of 113 cases with marked sclerosis and/or obstruction of the coronary arteries weighing 400 Gm or less [16] Since five of our 19 unknowns with heart weights of 400 Gm. or less showed coronary sclerosis of moderate or marked degree, these were also excluded Thus, 11 of 19 cases can be considered as having probably had a previous hypertension, giving a corrected figure of 78 per cent of the total series with hypertensive hearts Of the remaining eight, three were diabetic, so that of the 37 cases 32 were either hypertensive, diabetic, or both, constituting 86 5 per cent of the total

Acute clinical attacks of myocardial infarction were noted in 23 patients Twenty-two occurred within two weeks before admission and the other within one month In only four were previous attacks reported, these were at two, six, sixteen, and thirty-six months, respectively, before the final attack Most significant is the high mortality rate in this group with the first attack about 50 per cent of the total A history of angina was present in only six cases In three no acute attacks had ever been noted, but in two the electrocardiogram showed myocardial infarction

Electrocardiograms were obtained in 18 cases and in ten were diagnostic of infarction Correlation with pathologic findings was positive in eight of these ten In the other two no evidence of either infarction or occlusion could be found In one case the tracing was made two weeks after the acute clinical attack, while in the other no muscle damage was noted, but 100 cc of pericardial fluid were found, together with signs of cardiac failure In three cases where acute clinical attacks occurred and in which electrocardiograms were not diagnostic, the tracings were made less than one week after the acute episode The possibility that the tracing was made too early to show damage to the myocardium seems logical in some of our cases and is not the prime reason for the inconsistencies It is often difficult to account for such electrocardiographic changes which occur in the absence of pathology unless it is borne in mind that chemical changes in the muscle may be reflected as changes in conduction and are not visible microscopically

Old infarctions were found in nine cases with added recent infarcts in four, causing death Of the other five, two died of pulmonary infarction due to embolism or thrombosis, one of diffuse peritonitis resulting from rupture of a diverticulum of the colon, one of a cerebral vascular accident, probably originating from a thrombus in an old ventricular aneurysm (cardiac), and the fifth case died of acute cardiac failure

In general, the distribution of lesions has been similar to that found by many other investigators The distribution in 24 cases in which fresh occlusions were found is indicated in Table 2

TABLE 2.—DISTRIBUTION OF LESIONS IN 24 CASES WITH FRESH OCCLUSIONS

	Number of Cases
Left coronary artery	18
Anterior descending branch	13
Descending branch of circumflex	2
Posterior descending branch	2
Branch not specified	1
Right coronary artery	5
Not specified	1

In four other cases in which old healed occlu-

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Several factors were analyzed Cardiac hypertrophy can safely be assumed only when the heart weight greatly exceeds normal, since normal values in themselves are difficult to evaluate Body height and weight have been correlated with cardiac weight, and a wide range of normals has been reported in various series The only accurate method is to measure individual muscle fibers, and, since this was not done, heart weight must be relied upon for our survey Zeek studied the weight of the normal heart in 224 women and found a variation from 150 to 374 Gm.[11] He cites figures from other analyses in which the combined variations are from 110 to 367 Gm. with a combined average of 263 Gm. It would then seem reasonable to consider any heart weighing more than 400 Gm as definitely hypertrophied, *although Peery used 500 Gm as the* upper limit of normal in his study [12] Five of our unknowns had hearts weighing 500 Gm or more, ten others weighed between 400 and 500 Gm which placed 15 of the 19 in the category of hypertrophied hearts Using Zeek's tables, in which he correlated body length with heart weight in normal individuals, we obtained for the remaining four cases the figures shown in Table 1 Accordingly, we can consider all 19 of our unknowns as having cardiac hypertrophy

TABLE 1 —CORRELATION OF BODY LENGTH WITH HEART WEIGHT IN FOUR CASES ACCORDING TO ZEEK'S TABLES

Case Number	Body Length (Cm.)	Estimated Heart Weight (±30 Gm.)	Actual Weight
6	152	249	300
25	162	267	350
29	145	236	350
9	166	274	390

Many factors other than hypertension can increase cardiac weight No evidences of significant amounts of edema fluid or inflammatory exudate was found in these hearts In the four borderline cases mentioned above, one showed myocardial fibrosis with several areas of necrosis of muscle bundles, chronic passive congestion,

and mild pulmonary edema Another had a flabby fibrotic myocardium with bronchopneumonia and 200 cc of fluid in the left pleural sac The third had a large infarct with bloody pericardial fluid, and the fourth had an infarct with myocardial fibrosis, mild pulmonary edema, and cardiac failure

The effect of calcific disease of the aortic valve on heart weight was studied by Karsner and Koletsky and in 200 cases the average heart weight was 512 Gm.[13] Where calcific valvular lesions existed without deformity, the average weight was 453 55 Gm and rose to 529 Gm if deformity or stenosis were present Simple calcification of the aortic valve, therefore, is not to be considered a significant cause of more than slight hypertrophy unless associated with deformity In our 19 unknowns the description of the valves included the presence of thickening, calcification, and fusion of the commissures Whether sufficient fusion existed to cause actual stenosis could not be ascertained in most of the reports Only three were labeled "fusion," and their weights were 550, 430, and 500 Gm each They were excluded as having a sufficient causative factor for hypertrophy other than hypertension, even though it is not likely that the extent of deformity is adequate to account completely for the amount of hypertrophy Two other cases had normal valves and weighed 390 and 400 Gm. each.

Whether coronary sclerosis alone can cause cardiac hypertrophy is open to final decision Blood flow through the coronary vessels may conceivably be reduced sufficiently to cause ischemic weakness and increased stretching of the muscle in diastole, an effective stimulus to hypertrophy Kahn and Ingraham found increased heart weight in cases with moderate or marked coronary sclerosis [14] Shohet *et al* also found cardiac hypertrophy in 122 necropsies in which all other factors responsible for hypertrophy except coronary disease had been eliminated.[15] While it may be causative, the extent of hypertrophy is certainly not very great Nathanson reports 45 of 113 cases with marked sclerosis and/or obstruction of the coronary arteries weighing 400 Gm. or less [16] Since five of our 19 unknowns with heart weights of 400 Gm. or less showed coronary sclerosis of moderate or marked degree, these were also excluded Thus, 11 of 19 cases can be considered as having probably had a previous hypertension, giving a corrected figure of 78 per cent of the total series with hypertensive hearts Of the remaining eight, three were diabetic, so that of the 37 cases 32 were either hypertensive, diabetic, or both, constituting 86 5 per cent of the total

Acute clinical attacks of myocardial infarction were noted in 23 patients Twenty-two occurred within two weeks before admission and the other within one month In only four were previous attacks reported, these were at two, six, sixteen, and thirty-six months, respectively, before the final attack Most significant is the high mortality rate in this group with the first attack about 50 per cent of the total A history of angina was present in only six cases In three no acute attacks had ever been noted, but in two the electrocardiogram showed myocardial infarction.

Electrocardiograms were obtained in 18 cases and in ten were diagnostic of infarction. Correlation with pathologic findings was positive in eight of these ten In the other two no evidence of either infarction or occlusion could be found In one case the tracing was made two weeks after the acute clinical attack, while in the other no muscle damage was noted, but 100 cc of pericardial fluid were found, together with signs of cardiac failure In three cases where acute clinical attacks occurred and in which electrocardiograms were not diagnostic, the tracings were made less than one week after the acute episode The possibility that the tracing was made too early to show damage to the myocardium seems logical in some of our cases and is not the prime reason for the inconsistencies It is often difficult to account for such electrocardiographic changes which occur in the absence of pathology unless it is borne in mind that chemical changes in the muscle may be reflected as changes in conduction and are not visible microscopically

Old infarctions were found in nine cases with added recent infarcts in four, causing death. Of the other five, two died of pulmonary infarction due to embolism or thrombosis, one of diffuse peritonitis resulting from rupture of a diverticulum of the colon, one of a cerebral vascular accident, probably originating from a thrombus in an old ventricular aneurysm (cardiac), and the fifth case died of acute cardiac failure

In general, the distribution of lesions has been similar to that found by many other investigators The distribution in 24 cases in which fresh occlusions were found is indicated in Table 2

TABLE 2.—DISTRIBUTION OF LESIONS IN 24 CASES WITH FRESH OCCLUSIONS

	Number of Cases
Left coronary artery	18
Anterior descending branch	13
Descending branch of circumflex	2
Posterior descending branch	2
Branch not specified	1
Right coronary artery	5
Not specified	1

In four other cases in which old healed occlu-

sions were noted, two were in the left, one in the right coronary artery, and in one the location was not specified In four cases occlusion was by calcification alone without thrombosis In eight cases, of which six were recent and two old, infarction was present without occlusion In one other case an old occlusion was found without any area of infarction, recent or old

Thrombi were found attached to the endocardial surface 11 times in the ventricle alone in eight cases, in the right auricular appendage in two, and in both ventricle and auricle in one In six of these cases no embolization occurred Infarction was noted in organs other than the heart in 13 cases In four of these ventricular thrombus was present, and three were in auricular fibrillation before death Infarcts were found in the lungs and kidney in the case containing both ventricular and auricular thrombi with regular cardiac rhythm Both cases with auricular thrombi only, one of which was in auricular fibrillation, showed distant embolizations In the remaining six cases no origin for the distant infarcts could be found in the heart, although two of these also showed auricular fibrillation Therefore, auricular fibrillation and/or mural thrombus accounted for nine of the 13 cases with distant infarction In the remaining four, pulmonary infarcts were found in three cases and cerebral thrombosis in one Both lesions could have resulted from local stasis Mural thrombus or infarcts in distant organs were found in 17 of the 37 cases (46 per cent) In the series reported by Nay and Barnes, 37 per cent of 100 cases of coronary occlusion and/or myocardial infarction showed thrombotic or embolic manifestations [17] The distribution of such lesions in our cases is seen in Table 3 The high frequency of this complication seems to favor the routine early use of anticoagulant therapy in myocardial infarction

TABLE 3.—Distribution of Thrombotic or Embolic Manifestations in this Series

Location	Number of Cases
Pulmonary	9
Abdominal aorta	1
Superior mesenteric artery	1
Cerebral	3
Spleen	2
Kidneys	3
Thrombophlebitis	1

Large amounts of pericardial fluid are infrequent in myocardial infarction unless hemorrhage occurs Some effusion probably occurs since the friction rub so commonly heard disappears fairly rapidly Normally, up to 50 cc of free fluid may be found in the pericardial sac In the 26 cases in which mention of fluid was made, less than 50 cc was present in 14, between 50 and 200 cc was found in 11, and more than 200 cc in one Six of these effusions were bloody, two as a result of rupture of the ventricular wall, and in the other four due to oozing from fresh hemorrhagic infarction It is likely that cardiac failure in the other five might have contributed to the effusion The infrequent presence of pericardial effusion in this series is in keeping with other reports

The association of biliary tract disease with coronary disease has been the object of much research since 1878 Various views have been held cholecystitis predisposes to coronary sclerosis, cardiac lesions increase the incidence of cholelithiasis, cholecystectomy for cholelithiasis can result in improvement of angina and reversal of electrocardiographic changes in some cases The more conservative viewpoint is that cholelithiasis will cause anginal manifestations only where some coronary sclerosis with insufficiency already exists Breyfogle found gallbladder disease in 363 of 1,493 consecutive autopsies (24.3 per cent) and in 79 of 162 cases of coronary disease (42 4 per cent), demonstrating the increased incidence in association between gallbladder and coronary disease [18]

In our series, the presence of biliary calculi was noted in 12 instances (32 4 per cent) Diabetes was present in four (33 3 per cent), which is a greater incidence than was noted for the entire group (24 3 per cent) Whether the same disturbance in fat metabolism is responsible for coronary sclerosis and for the formation of calculi in these women is a subject for further investigation One fact appears evident The presence of biliary calculi must not be relied upon entirely to explain manifestations of coronary heart disease We have been unable to ascertain whether clinical symptoms related to biliary colic were present in our patients during life It seems unlikely that cholecystectomy would have affected the course of the cardiac disease in this group

Discussion

We have presented an analysis of the necropsy findings in 37 women in whom the cause of death included a diagnosis of myocardial infarction and/or coronary occlusions The age distribution coincided with that reported by many others, with the average age being approximately ten years more than that found in men. The reason for this difference is still not determined, although the theory of a better metabolic utilization of lipoids in women is the most widely quoted Dock's theory seems more likely [19] He studied the coronary vessels in 12 male and 12 female infants less than one day old and found the intima in the male about three times thicker than in the female, with an intima-

media ratio of 26 per cent in the male and 8 per cent in the female He believes the predilection of atherosclerosis for the male coronary vessels depends on this congenital difference Minkowsky repeated this study in infants more than one day old and corroborated Dock's findings [20] In addition, he reported areas of intimal thickening with a distribution similar to that found in the adult arteriosclerotic lesion in the coronary vessels These findings point to an anatomic difference in the vessels of the sexes which may in part explain the clinical difference noted in later life When, in addition, the metabolism is disturbed by diabetes with its tendency to produce early atherosclerosis, or if hypertension occurs with its production of vascular thickening, the incidence of coronary artery disease increases at a more rapid rate than would occur under normal aging processes in the female

The relatively rare incidence of angina was surprising Further studies are in progress in a larger series of nonautopsied cases of women with coronary occlusion which may not bear out these figures It is difficult at this time to give any fully satisfactory explanation. Since most of these women were in the higher age groups and probably confined their activities to housework, their coronary insufficiency may not have been induced as frequently as it might in a man required to perform more arduous physical tasks in earning a livelihood We are also inclined to question the accuracy of certain histories where more time and skill in questioning would have differentiated digestive from coronary complaints more accurately Finally, the high mortality with the *first attack of myocardial* infarction may have lowered the incidence of longstanding relative ischemia which usually causes angina.

We wish to emphasize again the high incidence of cholelithiasis in these cases of acute myocardial infarction because of the tendency in recent years to minimize the signs pointing to coronary disease in women in whom x-rays reveal calculi Although a number of patients have had relief of anginal symptoms following cholecystectomy, great diagnostic skill is frequently required to assign the proper significance to the symptoms observed. The higher incidence of association of these two conditions suggests a common denominator in the cause It would be more prudent to consider a woman with cholelithiasis and symptoms of coronary disease as a more likely candidate for infarction than to take the reverse, more optimistic stand. However, we do not object to cholecystectomy in very carefully selected cases

Our figures relating to the occurrence of thrombi both in the heart and in other organs and embolization resulting therefrom show a high incidence In a large number of our cases death was probably hastened, if not entirely caused, by embolization, and the prevention of such accidents by anticoagulants could be a valuable aid in reducing at least the immediate mortality Recent trends in the wider use of anticoagulants in routine treatment of myocardial infarction have produced large series of cases with results which favor such therapy

Summary

1 An analysis is presented of the findings in 37 women in whom necropsy revealed coronary occlusion and/or myocardial infarction.

2 Their ages ranged from forty-seven to eighty-seven years, with an average of sixty-seven and seven-tenths years This coincides with the findings in other surveys which indicate that coronary artery disease in women occurs a decade later than in men.

3 Diabetes mellitus was found in 24 3 per cent, hypertension in 78 per cent, and either or both in a total of 86 5 per cent The significance of this finding is discussed

4 Death followed the first attack in more than 50 per cent A history of anginal pain was rarely obtained, occurring in only six patients

5 The site and age of infarction were tabulated In general, the distribution of lesions in the coronary vessels follows the usual pattern of predominantly left coronary artery involvement The frequency of thrombus formation in the endocardium with embolic manifestations has been emphasized, having been noted in 46 per cent of this series

6 The occurrence of cholelithiasis in 12 cases points to a disturbance in fat metabolism as a possible common denominator in its association with diabetes mellitus, hypertension, and atherosclerosis

7 Coronary artery disease in women differs from that in men in many respects, as indicated above A further study of these factors may point the way to clarification of the etiology of a process which has taken increasing death toll in recent years

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two days. Examination revealed a semicomatose woman whose face was flushed and whose skin was moist. Temperature was 97.8 F. by rectum, pulse 140 per minute, respirations 36 per minute, shallow and rapid, and blood pressure was 100/80. Pupils were normal, neck was stiff, Kernig and Brudzinski signs were positive, deep reflexes were active and equal, Babinski signs were negative, and sensory status was intact. There was no evidence of motor impairment. Adrenalin by hypodermic injection, ephedrine sulfate by mouth, and calcium gluconate intravenously relieved the symptoms within one-half hour. On the next day she developed generalized urticaria which cleared up two days later without any other untoward symptoms.

This patient represents the usual type of reaction to tetanus antitoxin accompanied, however, by a form of meningismus, undoubtedly on an allergic basis. The syndrome of fever, chills, adenopathy, arthralgia, and urticaria usually manifests itself about five to seven days after the injection of serum. Lyall and Murdick in an analysis of 1,000 cases receiving New York State tetanus antitoxin showed that general reactions were much greater in those persons with a history of previous injection of serum than in those with no such history.[1] The incidence was 36.6 per cent in the former as compared to 18.2 per cent in the latter. This case belongs to the series of patients who had not received any previous serum and is classified as serum disease.

Case 2.—F. M., age forty-five, a white man, stepped on a nail on May 27, 1942, inflicting a puncture wound on the left foot. The wound was taken care of in the usual manner, and because the skin test with New York State tetanus antitoxin was markedly positive no serum was given. The following day the right forearm, at the site of the skin test, became very swollen, red, hot, indurated, and did not pit on pressure. This swelling increased tremendously so that on May 29 it extended from his shoulder down to the tips of his fingers. He also began to complain of marked local pruritus. Temperature, pulse, and respiration remained normal. Bed rest, elevation of the arm, Burow solution wet dressings, and 7 minims of adrenalin hypodermically every four hours finally brought the swelling down to normal three days later.

This case represents the most marked local reaction to a skin test with tetanus antitoxin that I have ever seen or, probably, that has ever been reported in the literature. Although he had never received any previous injections of serum or antitoxin, he had formerly been a dealer of horses and had had to give up his trade because of so-called "eczema" resulting from the handling of the horses.

Case 3.—L. T., age thirty-eight, a white man, cut the dorsum of his right index finger with a machine tool on May 12, 1943. The wound was cleansed and, after a negative skin test, 1,500 units of New York State tetanus antitoxin were given subcutaneously. Five days later he developed axillary adenitis and urticaria. This was relieved within three days, following several injections of adrenalin. On May 20, the patient complained of severe sharp pain in the right arm which was not relieved by sedation. The pain became worse and involved the entire right shoulder girdle radiating to the side of the neck and to the occiput. This was accompanied by an inability to use the arm. Temperature, pulse, and respiration remained normal. The pathology was limited to the right shoulder girdle. The arm hung limply at the side and could not be abducted or rotated outward. There was loss of pinprick sensation on the outer side of the arm. The biceps, brachioradialis and brachialis anticus muscles were flaccid and showed occasional fibrillary twitchings. Biceps jerks were absent on the right side. Flexion at the elbow was absent, but movement of the hand and fingers was normal. Spinal tap was normal, but a mild blood eosinophilia of 8 per cent was present. The marked pain disappeared after six hours, leaving a mild ache for about two days. Full power in the right shoulder girdle returned to normal two weeks after the onset.

This case represents an Erb Duchenne type of involvement of the brachial plexus, namely, the fifth and sixth cervical roots. This is the most frequent type of polyneuritis following an injection of tetanus antitoxin. Most of these cases of radiculitis have been reported from the continent, chiefly France.[2-6] To date a little over a hundred cases have been reported in the literature. Peculiarly enough, the right shoulder girdle is involved more often than the left. It is more apt to occur in individuals who had serum injections previously and in adults rather than children. According to Chavany and Askenazy, the amount of serum injected plays no part in the ensuing reaction.[2] The prognosis is usually good, but the more severe cases may persist for one to two years.

Every physician has had cases which have developed some form of reaction to tetanus antitoxin. As a rule, these after-effects are mild and annoying, but at times the reactions are more severe as in cases 2 and 3. There have even been deaths reported on an anaphylactic basis but, fortunately, these cases are rare.

Although the physician should be aware of the different types of reactions to serum, these undesirable side-effects should not deter him from administering the antitoxin to the required cases. With proper desensitization in the sensitive cases and with the use of adrenalin, ephedrine sulfate and like derivatives, and the newer antihistamine drugs, most of these cases can be treated adequately and rapidly.

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UNUSUAL REACTIONS TO TETANUS ANTITOXIN

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(From the Mercy Hospital)

ALTHOUGH tetanus toxoid has come to the fore as a prophylactic and therapeutic agent against tetanus, tetanus antitoxin is still more widely used throughout the world for that same purpose Unfortunately, because of the small number of marked reactions to the antitoxin, much too large a number of medical men have become overcourageous and have administered the antitoxin without a previous test for sensitivity or have not paid adequate attention to the skin test This paper is presented, therefore, as a warning against the further practice of giving tetanus antitoxin without proper delineation of a previously performed skin test

Briefly, it is well known that the antitoxin is derived from the serum of a horse which has previously received a nonlethal dose of tetanus toxin The undue reactions which occasionally appear after inoculation of tetanus antitoxin are due not to the tetanus toxin but to the serum of the horse A large percentage of the population is allergic to horse serum, some individuals more than others and particularly those who have been in contact with horses—farmers, horse dealers, tanners, etc

Allergic reactions to serum may be immediate or delayed, local or general Serum disease which may be expected in about 15 per cent of cases is characterized by the fact that it occurs in normal persons without a history of previous serum injection and that an incubation period is necessary before the development of symptoms Artificial serum allergy is seen in those normal persons who have become sensitized because of a previous injection of serum and may be expected in about 50 per cent of such cases Natural serum allergy occurs in those individuals who give a family history of allergy and is extremely rare, occurring only once in 70,000 serum injections

It is necessary to determine whether or not the patient is sensitive to horse serum, or to bovine serum if the latter is to be employed The history, physical examination, and sensitivity tests assist in diagnosing a state of serum hypersensitivity

Sensitivity tests must be carried out each time serum is to be given. The information supplied by sensitivity tests is valuable but by no means infallible, and the various tests differ in their degree of sensitivity and, therefore, in their practical significance The ophthalmic test, although not so sensitive as the skin test, is a more reliable means of predicting the occurrence of acute reactions On the other hand, the skin tests frequently detect states of sensitivity which are not of clinical significance Obviously, the results of the various tests must be correlated with the history and physical examination

In performing the intracutaneous test, 0 1 ml. of a 1 100 dilution of serum in sterile physiologic salt solution is injected intradermally A positive local reaction consists of an area of edema about 1/2 inch in diameter with a surrounding erythema, frequently with pseudopodia extending from the wheal It is said that the sooner the local reaction appears the greater the sensitivity The size of the reaction does not indicate the degree of sensitivity, merely that sensitivity exists

The ophthalmic test is made by placing a drop of serum diluted 1 10 in the conjunctival sac If redness, burning, and itching occur in ten minutes, a marked state of sensitivity is said to be present

Case Reports

Case 1 —E B , age twenty-seven, a white woman, ran a nail into the lateral aspect of her left foot on November 14 1942 The puncture wound was opened and cauterized After a negative skin test, 1,500 units of tetanus antitoxin were given subcutaneously On November 18 she suddenly developed pain in the back of her neck, enlargement of the axillary glands, chills, and fever She had complained of lethargy and malaise during the preceding

two days. Examination revealed a semicomatose woman whose face was flushed and whose skin was moist. Temperature was 97.8 F. by rectum, pulse 140 per minute, respirations 36 per minute shallow and rapid, and blood pressure was 100/80. Pupils were normal, neck was stiff, Kernig and Brudzinski signs were positive, deep reflexes were active and equal, Babinski signs were negative, and sensory status was intact. There was no evidence of motor impairment. Adrenalin by hypodermic injection, ephedrine sulfate by mouth, and calcium gluconate intravenously relieved the symptoms within one-half hour. On the next day she developed generalized urticaria which cleared up two days later without any other untoward symptoms.

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This case represents the most marked local reaction to a skin test with tetanus antitoxin that I have ever seen or, probably, that has ever been reported in the literature. Although he had never received any previous injections of serum or antitoxin, he had formerly been a dealer of horses and had had to give up his trade because of so-called "eczema" resulting from the handling of the horses.

Case 3.—L. T., age thirty-eight, a white man, cut the dorsum of his right index finger with a machine tool on May 12, 1943. The wound was cleansed and, after a negative skin test 1,500 units of New York State tetanus antitoxin were given subcutaneously. Five days later he developed axillary adenitis and urticaria. This was relieved within three hours, following several injections of adrenalin. On May 20, the patient complained of severe sharp pain in the right arm which was not relieved by sedation. The pain became worse and involved the entire right shoulder girdle radiating to the side of the neck and to the occiput. This was accompanied by an inability to use the arm. Temperature, pulse, and respiration remained normal. The pathology was limited to the right shoulder girdle. The arm hung limply at the side and could not be abducted or rotated outward. There was loss of pinprick sensation on the outer side of the arm. The biceps, brachioradialis and brachialis anticus muscles were flaccid and showed occasional fibrillary twitchings. Biceps jerks were absent on the right side. Flexion at the elbow was absent, but movement of the hand and fingers was normal. Spinal tap was normal, but a mild blood eosinophilia of 8 per cent was present. The marked pain disappeared after six hours leaving a mild ache for about two days. Full power in the right shoulder girdle returned to normal two weeks after the onset.

This case represents an Erb Duchenne type of involvement of the brachial plexus, namely, the fifth and sixth cervical roots. This is the most frequent type of polyneuritis following an injection of tetanus antitoxin. Most of these cases of radiculitis have been reported from the continent, chiefly France.[2-6] To date a little over a hundred cases have been reported in the literature. Peculiarly enough, the right shoulder girdle is involved more often than the left. It is more apt to occur in individuals who had serum injections previously and in adults rather than children. According to Chavany and Askenazy, the amount of serum injected plays no part in the ensuing reaction.[2] The prognosis is usually good, but the more severe cases may persist for one to two years.

Every physician has had cases which have developed some form of reaction to tetanus antitoxin. As a rule, these after-effects are mild and annoying, but at times the reactions are more severe as in cases 2 and 3. There have even been deaths reported on an anaphylactic basis but, fortunately, these cases are rare.

Although the physician should be aware of the different types of reactions to serum, these undesirable side-effects should not deter him from administering the antitoxin to the required cases. With proper desensitization in the sensitive cases and with the use of adrenalin, ephedrine sulfate and like derivatives, and the newer antihistamine drugs, most of these cases can be treated adequately and rapidly.

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CLINICAL PATHOPHYSIOLOGY OF THERAPEUTIC EXERCISES

HANS KRAUS, M D , New York City

(From the Department of Physical Therapy, Vanderbilt Clinic, Columbia-Presbyterian Medical Center)

EXERCISES have gradually become one of the most important modalities of physical medicine This is mainly due to the fact that they can help to restore or improve function. There are two main groups of therapeutic exercises general therapeutic exercises, the aim of which is to improve metabolism, general muscle status, circulation, breathing, etc , and exercises to improve more or less localized conditions, i e , exercises whose main aim is to affect the muscle status of more or less localized body regions It is this latter group which is to be discussed here This group includes exercises for poliomyelitis, cerebral palsy, posture, traumatic conditions, and local arthritic conditions In other words it includes numerous orthopedic and neurologic and certain medical indications

Therapeutic exercises were introduced to this country by Dr G H Taylor with the publication of his book, *Exposition of the Swedish Movement Cure* While this book presents an over-all view of the various fields in which exercises are used, we are presently in a period of superspecialization The trend toward singling out special systems of exercise therapy for special conditions is very definite It is deplorable that exercise therapy, which can be a valuable part of the therapeutic armamentarium, has been divided into a number of individual therapeutic fields (posture work, cerebral palsy work, infantile paralysis work, traumatic work) This branching off into different fields of exercise therapy has real drawbacks

Physical therapists trained in only one of these fields will be less capable in others They are prone to apply the principles of their own field to whatever problem they may encounter They lose contact with the general problem of muscle development, and the individual "systems" freeze, sacrificing the chance to improve and absorb new progress Furthermore, individual systems tend to develop "followers" who demonstrate an emotional, and almost religious, fervor in the support of their adopted technics

Far-reaching specialization is not possible in small communities A handful of persons or perhaps only a single individual may have to cope with all the problems of therapeutic exercises, and for this reason we need therapists and doctors in physical medicine with good general backgrounds It has, therefore, been our aim to establish common denominators for exercise treatment and its prescription—common denominators which may serve as indications in the various fields of application of therapeutic exercise

We feel that an exercise prescription should be written and filled as accurately as any prescription for a highly potent drug It should be based on proper analysis of the motor deficiency requiring treatment This analysis should not only include a defining of the groups of muscles requiring treatment but the type of muscle deficiency It should include quality and quantity of exercise desired

In an attempt to establish common denominators for an exercise treatment we will carry our analysis of muscle function only to a point where the elements defined can be used directly as a basis for exercise prescription. Anything more complicated would be valueless for such a purpose

For a rough working analysis it will be sufficient to differentiate three functional basic qualities of a muscle (1) muscle power, the ability of the muscle to overcome resistance and to lift or hold weights, according to its ability to contract, (2) elasticity, the ability of the muscle to relax the state of contraction and actively adapt itself to varying lengths without straining its fibers, and (3) coordination, the correct play of muscle power (1) and elasticity (2) relative to a time unit We realize that these basic qualities are a gross oversimplification, but they constitute the three main aspects of muscle action which can be translated directly into an exercise

The leading principle for all exercise work is the fact that the muscle will develop exactly the quality which is demanded by the performance of the particular exercise Thus, if a muscle is called on to lift weights, to increase its contraction, its ability to contract and its power will be increased, if a muscle is made to relax, to give up tenseness, to increase its length, its elasticity will be increased, if a muscle is called upon to function properly in relation to other muscles, its coordination will be improved

Another principle in prescribing therapeutic exercises is the fact that only sufficient repetition of a sufficiently difficult task will cause the muscle to increase whatever property is demanded of it Let us call this requirement "exercise value" Since only a certain number of minutes every day will be available for exercise, it is vital to use all

Presented at a meeting of the New York Society of Physical Medicine, February 4, 1948.

this time for necessary movements and to standardize these movements in order to concentrate on the muscles requiring treatment In most cases it is also important to avoid fatigue and pain

The form of an exercise is the sum total of the following elements muscles involved in the movement, the qualities of muscle function necessary for the movement, the speed of performance, rest periods between performances, range of movement and intensity, and effort employed

Individual Types of Exercise

Power—The maximum weight which can be lifted by a muscle indicates its absolute muscle power The length of time during which this weight can be lifted a consecutive number of times indicates the endurance This period will obviously be longer for a weight that is less than the maximum capacity

Exercises leading to muscle power are those which require the lifting of a weight or the overcoming of resistance which may be represented by the weight, or partial weight, of the body region moved by the muscle Whenever the muscle is too weak to manage the full weight of the body region or when the synergists of a muscle are not able to give it adequate help, outward assistance must be given. This may take the form of support by the hands of a second person, the buoyant effect of water in which the part is immersed, or support by the hands of the patient himself Resistance to the muscle contraction may be provided by some other person or by mechanical device

The quantity of weight to be lifted, the resistance to the movement, and the time of application of the exercise must be increased gradually Experiments registering the maximum weight-lifting capacity of normal persons have shown that the maximum weight that could be lifted was less on the second and third days than on the first The fourth and fifth days brought a gradual increase. It took the subjects of the experiment approximately six days to a week to regain the weight-lifting capacity of the first day of training from then on a gradual gain over the initial capacity was observed

Power-building exercises should, therefore, be on a gradually increasing scale so that the tive phase can be avoided. They should be performed regularly, since exercising once or twice week will barely maintain the status quo As as the patient can return to his daily work, normal use will keep the muscle at the required level of efficiency It must be emphasized, however, that, unless the limb which has been treated quite ready for normal use, there will always be tendency on the part of the patient to favor it, in ich case he will not find the necessary amount of exercise in his daily occupation and will lapse into a lower level of muscle power

Overtaxing muscle power, especially in the initial stage of treatment, will result in discomfort and pain, not only in the affected muscles but often in affiliated muscle groups Muscle spasm will set in or will be increased, and limitation of motion will result

As previously stated, muscle power is based on the ability of a muscle to contract The word contraction is a misnomer, since the main criterion of contraction is not, as the word implies, shortening, but increase of tension of the muscle Contraction can, as a matter of fact, be associated with shortening of the muscle (concentric contraction), or it can be associated with lengthening of the muscle (eccentric contraction), or again no change in length may occur at all (isometric contraction) In isometric contraction no movement results, but the increase of muscle tension may be effective as holding power It is important to be aware of these different types of muscle power-building movements in order to prescribe the right type of therapeutic exercise The following examples will serve to illustrate concentric, eccentric, and isometric forms of contraction.

(*a*) The flexors of the elbow may increase in tension and decrease in length when the elbow is actively flexed This is "concentric" contraction

(*b*) The flexors of the elbow may increase in tension to the maximum of their capacity against an overpowering pull by an outside force in the opposite direction. The elbow will be forced from a flexed to a stretched position in spite of increased muscle tension in the flexors This will result in increased tension and increased length in the elbow flexors This is "eccentric" contraction

(*c*) The flexors of the elbow may be consciously made to increase in tension, as in a muscle setting exercise, without any movement resulting at the elbow and without change in muscle length This is "isometric" contraction

Elasticity—Total elasticity is the ability to give up contraction and to decrease tension, plus the mechanical ability to yield to passive stretching The first, physiologic elasticity—the giving up of contraction (relaxation)—may be observed in three forms, depending on the relation between the length and tension of a muscle These are counterparts to the three forms of muscle contraction described under muscle power Concentric relaxation, in which decrease of tension is associated with decrease of length, is a condition present in a relaxed passive movement in which insertion and origin of the muscle are approxi-

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SURFACE-ACTIVE SOLVENTS IN TOPICAL ANTIBIOTIC THERAPY

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WE HAVE shown in a series of previous publications that improved clinical results may often be obtained if therapeutic measures are directed toward increasing topical contact between bacterial pathogens and an appropriate antibiotic.[1-4] To this end the use of 100 ml of 0 1 per cent dioctyl ester of sodium sulfosuccinate (aerosol O T) as a solvent for 1,000,000 units of penicillin was designed to further the penetration of the antibiotic into osteomyelitis lesions The arrest of drainage in cases of chronic osteomyelitis, previously treated unsuccessfully by almost all conventional methods led to a more extended investigation of this simple and conservative method of treatment It was observed that the activity of penicillin was greatly enhanced in the presence of aerosol O T or zephiran chloride, aqueous solution, surface-active synergists.**

Particularly important in multiple chemotherapy is the probable lack of opportunity for the development of resistant bacterial strains as observed in correlated laboratory studies and as found by other investigators[4] Since the great problem of resistant bacterial strains is assuming increased clinical significance, attention must be directed toward the manner of origin and the control of resistant organisms All patients treated with a single antibiotic will not necessarily develop resistant strains, but the opportunity for such an occurrence becomes increasingly great as patients with chronic, protracted, suppurative disease continue from day to day on inadequate regimes of penicillin or streptomycin

Failure to understand the few elementary concepts concerning the origin and control of resistant forms of bacteria may, in fact, seriously diminish the efficiency of therapy These simple concepts may be summarized as follows Resistant bacteria originate spontaneously by a process of mutation, or genetic change, and a few of them may be found in any large collection of so-called sensitive cells Their origin does not depend on the presence of a drug against which resistance is acquired Resistant strains are found after prolonged programs of therapy merely because the therapeutic drug may act as a selective agent, eliminating the sensitive cells but incapable of eradicating the more resistant variants The chance that resistant bacteria will arise is greatly reduced if more than one antibacterial agent is used By the simultaneous use of several antibiotic or germicidal substances any cell which becomes resistant to one component will remain vulnerable to another component, providing the modes of action of different components are sufficiently specific so that no overlapping protection is afforded by a genetic change The activity of penicillin in vitro is synergistically enhanced by the presence of some detergents. We have observed a definite synergism of penicillin with 9-amino acridine hydrochloride and streptomycin using Staphylococcus aureus among other test organisms

With these principles of the control of resistance in mind, together with the obvious advantages of synergism and reduced surface tension apparent in antibiotic detergent solutions, we have used surface-active antibiotic solutions by inhalation or local application in a variety of clinical problems with the results to be reported

In presenting the following cases, we would like to emphasize that each of these patients has previously had the benefit of all modern forms of therapy with unsatisfactory results The present cures now obtained must, therefore, be entirely credited to the above-mentioned plan of therapy The potential magnitude of this relatively simple method for coping immediately with the numerous problems of pulmonary tuberculosis is clearly obvious, and all forms of collapse therapy should be re-evaluated in the light of these data

Chronic Osteomyelitis

It would seem at least possible to assume that we would obtain enhanced penetration of osteomyelitic lesions by using a detergent solvent with penicillin in infected bone in humans Nevertheless, a fundamental of this entire problem of topical therapy for all suppurative disease was predicated on our experimental work on the freshly excised femur of rabbits in which was observed the enhanced penetration of 0 1 per cent methyl green in surface-active solution Therefore, we felt that curing hopeless cases of chronic osteomyelitis in humans would represent a very firm

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* By invitation

** Zephiran chloride is a mixture of high molecular alkyldimethylbenzyl ammonium chlorides.

mated Eccentric relaxation is release of tension combined with increase in length, the common procedure in normal active movement Isometric relaxation is the release of tension without a corresponding increase in length No movement results, but the tension of the muscle is decreased The following are examples of the three forms of muscle relaxation

(*a*) The flexors of the elbow may be consciously fully relaxed or decontracted while the elbow is passively carried from a position of extension This is "concentric decontraction" (concentric relaxation)

(*b*) The flexors of the elbow may be relaxed (decontracted) and lengthened when the elbow is being stretched from a flexed position to full extension This is "eccentric decontraction" (eccentric relaxation)

(*c*) The flexors of the elbow may be consciously fully relaxed without any movement at the elbow joint and without change in muscle length This is "isometric decontraction" (isometric relaxation)

Physiologic elasticity may be diminished by impairment of a muscle's ability actively to release tension This is the case in spasticity caused by lesion of the upper motor neuron The muscle reacts to an excess of stimuli reaching it via the spinal cord by contracting It does not relax when its antagonists contract but responds to contractions of its antagonists with contraction Normally, a muscle should give up contraction, even before the antagonist contracts, and thereby release motion In a case of spasticity such as found in hemiplegia, spinal cord lesions, and in the spastic types of cerebral palsy, relaxation is the first aim

An entirely different approach is necessary in a case of painful muscle spasm such as is seen in acute trauma or infantile paralysis Here, relief of pain is the first step toward normal Only after local relief of pain has been obtained is the second step taken In other words, the first step consists of an attempt to release contraction through low-grade local relaxation exercises

If the elasticity of a muscle is diminished in a physical sense, that is, if the muscle is physically foreshortened, this state must be treated with active or passive stretching of the muscle contracture

When giving power-building exercises as well as exercises to increase elasticity and coordination, the need for a warm-up must be considered Recently, it has been shown that a muscle does not function with maximal efficiency unless warmed up by work or deep heat to a slightly lesser extent This has been shown by measuring the muscle temperature and at the same time comparing the efficiency in a series of normal persons

Coordination —Coordination is the well-timed and well-balanced aggregate functioning of several muscles in a given movement The function of a group of muscles is well balanced if the necessary degree of contraction is matched by an adequate degree of decontraction in the antagonists

Normal movements of joints are produced by the concerted action of several muscles The actions of these muscles consist of contractions of one group and decontractions of another Changes of muscle length and tone occur in varying degrees The simplest movement, therefore, is a combination of many different muscle actions by several muscles and groups of muscles. This combination of muscle actions constitutes a movement pattern.

In all the previously described disturbances of muscle power and/or elasticity, the affected muscle will not be able to cooperate in a well-timed and well-balanced way with its synergists and antagonists If its dysfunction is of minor degree, this disability may be hidden by other compensating muscles When it is severe enough to be apparent, it results in poor or lacking coordination—incoordination This incoordination will be more obvious as the movement patterns become more complicated

With power and elasticity perfect, coordination can still be impaired if timing and quantitative cooperation of some muscles are not functioning correctly Lesions of the central nervous system and of the organs of equilibration are possible causes for this malfunction If motor patterns cannot be established or have been forgotten, the symptoms of "incoordination" may be apparent This is true physiologically when learning new skills

Conclusion

It is difficult at this time to establish a satisfactory scientific approach for therapeutic exercises It is, however, entirely possible to establish a few common denominators for the whole field of therapeutic exercises on the basis of known physiologic and pathologic facts While these common denominators cannot be considered final, they may have a temporary value as a clinical approach for the prescription of therapeutic exercise They constitute an attempt to give a rational approach to exercise therapy and to avoid overspecialization in the various subdivisions

aqueous solution, 1 1,000 Five milliliters of Sulmefrin or Neosynephrine are inhaled first to aid in the opening of the bronchioles, thus facilitating the deposition of the antibiotic mist into the periphery of the lung Patients are instructed to exhale very forcibly so that they may inhale deeply the aerosolized mist into the terminal bronchi and bronchioles The mist is then deeply inhaled through the mouth every six hours for the first twenty-four hours and then every eight hours night and day for two to four weeks If the patient complains, we may stop inhalation entirely for a few days and then start again. The final steps consist of washing the aerosolizer with 1 ml of physiologic saline and inhalation of this solution As a motivating agent we have used oxygen running at the rate of 5 to 7 L. per minute, although simpler and less expensive methods can easily be devised

The patient is also injected daily with 1 Gm of streptomycin and 300,000 units of penicillin, the latter dissolved in an appropriate solvent to maintain an adequate therapeutic blood level We feel that the combination of the two antibiotics mildly supplements systemically the synergistic therapy in the lung Experimental evidence exists showing that a synergism occurs when streptomycin and penicillin are combined, and the clinical value is obvious The amount of streptomycin administered never exceeded 60 Gm. We have not encountered permanent eighth nerve damage or any other severe complications Some apparently mild allergic reactions were satisfactorily controlled by histamine drugs

We believe that the most valuable element in this plan of therapy is noted above, but, nevertheless, we have augmented therapy systemically with the following liver and vitamin B parenterally, three times a week, vitamins B and C, liver and iron preparation, protein hydrolysates, vitamin K—Menadione—2 mg daily, and Staticin, 4 Gm every quarter hour, night and day for the first forty-eight hours

Vitamin K is given in the hope that it may aid in the production of fibrosis Although the exact nature of the action whereby Vitamin K will increase the prothrombin time is not known, nevertheless, we feel it may be therapeutically helpful With the administration of Staticin, 4 Gm, we may obtain, at the very onset, a higher penicillin level which will aid in the destruction of bacteriologic invaders secondary to the Mycobacterium tuberculosis The importance of liver damage in pulmonary tuberculosis has too often been overlooked We consequently have a well-balanced routine diet to keep protein and carbohydrate intake high and fats moderately low Our first considera therapy is the lung and, following this, th

Case 6—This patient had tuberculosis years duration Routine therapy was ineff The patient was first seen in December, 194 massive hemorrhage and evidence of disea gressing Routine therapy to control hemo was started In January, 1947, when hem was under control, inhalation therapy s Within one month, cavity had diminished co ably At the end of three months, the cav disappeared, sputum was negative, and al laboratory data were within normal limits cultures every two months have been consi negative

Case 7—The first positive tuberculosis s from this patient was seen in October, 1946 gen examination showed bilateral tuber Right pneumothorax was begun in Nov 1946 Aerosol inhalation therapy started in 1947 After cessation of therapy, tempora ralysis of right diaphragm by crushing nerve was done. By the end of April, 194 tums were negative To date, there have b negative sputums and four negative gastric c

Case 8—A twenty-one-year-old woman good health until December, 1946, when she c up blood. She was immediately hospitalize no diagnosis made. In June, 1947, there second episode of coughing up blood The sis was pulmonary tuberculosis of right side was no therapy until the patient was seen by the first time in September, 1947, with a diag advanced tuberculosis with cavitation of th lung The patient was hospitalized imme Inhalation therapy was carried out for three and stopped because of complaint of pain in midportion of chest. There was a satisfact covery After cessation of therapy, tem paralysis of right diaphragm by crushing the nerve was done Cough promptly subsided tums became negative and have remained so gastric analyses were negative

Case 9—This was a patient with a hist pulmonary tuberculosis for one year with em following pneumothorax associated with bi pleural fistula Inhalation therapy was ins in November, 1946, along with permanent pa of right diaphragm by excision of about 2 to 3 phrenic nerve. The patient has been follow twenty months and is progressing satisfa Sputums and gastric analyses are consistentl tive

Case 10—This patient first coughed up b the summer of 1941 and had an acute resp attack in February, 1942 Sputum was p In the same month the patient suffered large rhage Right pneumothorax was begun and factory collapse was obtained Sputum was tive in May, 1942 and remained negative fo years, the patient being entirely symptom-f two years with a weight gain of 30 pounds. lung was permitted to re-expand gradually film in January, 1946, showed slight shadow

foundation to launch this newer concept of antibiotic therapy

In preliminary reports we have shown that osteomyelitis can be cured by this method [1-3] We will briefly report five of the most difficult cases sent to us, involving different anatomic types of chronically infected bones—long bones, skull, spine, and knee joint

Case Reports

Case 1 —This patient had a chronic osteomyelitis of the right tibia of fifty years duration with two chronic sinuses, now closed after topical germicidal detergent antibiotic therapy of aerosol O T with penicillin, administered every four hours night and day for ten days Infecting organism was Staphylococcus aureus

Case 2 —A twenty-six-year-old western rancher had chronic osteomyelitis of twenty-five years duration involving the distal portion of the left tibia The frequent trauma to this leg associated with herding cattle would often be associated with a fracture of the tibia in its midportion, probably due to the chronic osteomyelitis at the distal portion Osteomyelitis was closed by topically applied detergent germicidal aerosol O T therapy, administered every four hours night and day for ten days Infecting organism was hemolytic Staphylococcus aureus

Case 3 —This patient had bad left-sided facial deformity secondary to chronic osteomyelitis of the frontal bone nasal, maxillary, and ethmoid with numerous (probably five) purulent fistulas closed The detergent zephiran chloride, aqueous solution, 1 1,000, with penicillin was used in this patient because of the proximity to the eyes Administered every four hours night and day for ten days Infecting organism was Staphylococcus aureus

Case 4 —Patient has osteomyelitis of the spine, ileum, sacrum, and sacroiliac joint of fifteen years duration. Aerosol O T was administered with penicillin in August, 1946 The discharge did not entirely disappear When seen again on July, 1947, the patient showed improvement about 95 per cent better than prior to treatment. A second course of therapy with aerosol wash containing 500,000 units penicillin plus 500,000 units of streptomycin was started in August, 1947 * The patient was instructed to instill 1 ml. every three hours night and day for five days through a ureteral catheter The sinus closed promptly after a cessation of therapy and has remained so Infecting organism was Staphylococcus aureus

Case 5 —This patient, a veteran injured by shrapnel going through the upper end of the right tibia and fibula, was under treatment for three years and discharged from the veteran's hospital with war injury still draining, and increased evidence of joint involvement of bones and limitation of motion of joint The lesion is now closed with function of knee joint 90 per cent normal. Aerosol O T with penicillin administered every four hours night and day for ten days Infecting organism was hemolytic Staphylococcus aureus

Our series of cases comprised 35 patients treated with germicidal detergent solvents with penicillin The five cases noted above are typical for 22 patients of the entire series Of the remaining 13 cases in the series, seven are improved and want no further therapy but still have some discharge, and six are unimproved These six cases were among some of the earliest cases treated It is conceivable that a combination of factors—inexperience, inadequate supply of detergent, and insufficient knowledge of such solvents—was responsible for the lack of improvement in these patients

We have very deliberately laid great emphasis on this aspect of our work on osteomyelitis If such solutions in diseased bone can destroy bacterial pathogens, the potential effectiveness of detergent antibiotics in soft tissue becomes apparent

Pulmonary Tuberculosis

Advanced cases of pulmonary tuberculosis that had previously received all forms of therapy without results have responded satisfactorily to the same principle of topical therapy when penicillin and streptomycin are used in a germicidal detergent zephiran chloride, aqueous solution, 1 1,000 The solution is inhaled directly into the lungs as an aerosol or mist It is of prime importance to realize that for this type of topical treatment an expandable lung is necessary, and we believe that all collapse therapy should not be used until this infinitely more conservative method is first tried The irreversible tissue damage that reflects itself in high mortality and morbidity rate for pulmonary tuberculosis might, therefore, be arrested This simple and relatively inexpensive plan can very easily be expanded beyond the limited facilities now available It would probably lead to better clinical results, especially when used in early cases

If pulmonary tuberculosis with its complicating and crippling deformities is to be controlled and cured, we feel that this new, nonmutilating method should be considered the first method of choice The topical use of streptomycin and penicillin in a germicidal detergent solvent and inhaled as an aerosol would seem to be an ideal vehicle

The detergent solution is prepared by dissolving 300,000 units of streptomycin and 100,000 units of penicillin in 4 ml of zephiran chloride,

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* Aerosol wash Aerosol O T —0 68 per cent dioctyl ester of sodium sulfosuccinate Aerosol No 22— 0 08 per cent N-octadecyl N(1 2 dicarboxyethyl) tetrasodium sulfosuccinate with preservatives distilled water q.s ad 100 per cent V

became toxic with elevation of temperature, and it was necessary to reinsert the tube Five local surgeons have attempted its removal during the last seven years but always with the same results He was treated recently with penicillin detergent aerosol wash, and the tube was replaced by a large mushroom catheter so that instilled detergent antibiotic solution would diffuse through the old abscess cavity and not go through to the bronchus Four milliliters of the following solution were inhaled every eight hours, night and day 1 Gm. streptomycin and 1 Gm. penicillin dissolved in 100 ml. of zephiran chloride, aqueous solution, 1 1,000 These detergents were used alternately so that there was a constant introduction of the detergent antibiotic therapy every four hours The patient was instructed to lie on his good side so that the antibiotic detergent solution would have the aid of gravity He had considerable dyspnea on the seventh day, and inhalation was therefore stopped. The tube was removed on the tenth day with no clinical symptoms The dental sepsis which is usually present in putrid lung abscess or empyema was cleared up before therapy was started At present, roentgenographic studies show that suppurative process in the lung has markedly disappeared with aeration and expansion of the diseased area.

The therapy for the various types of cases described in this paper is a radical departure from the usual surgical intervention The philosophic concept of surgeons must also be radically altered to meet present conditions as provided by antibiotics Research workers have provided us with new tools which we, as surgeons, have been slow in utilizing The medical clinician has readily accepted and made use of these antibiotic tools Surgeons have accepted them only as an adjunct to surgery It is now time for us to scrutinize more closely all possibilities of utilization of antibiotics, not only as an aid to surgery, but, wherever possible, as a substitute for surgery

We wish to express our appreciation for the aid given to us by Dr Donald O Hamblin of the American Cyanamid Company and Dr Stanton M Hardy Dr Benjamin Carey and Dr Rutledge W Howard of the Lederle Laboratory Division.

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PRIZE ESSAYS

The Merrit H. Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 2, 1949, in Buffalo

The Lucien Howe Prize of $100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology The author need not be a member of the Medical Society of the State of New York.

The Merrit H. Cash Prize of $100 will be given to the author of the best original essay on some medical or surgical subject Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State

The following conditions must be observed

Essays shall be typewritten or printed with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device The essay shall be accompanied by a sealed envelope having on the outside the same motto or device, and containing the name and address of the writer

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded.

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than February 1, 1949, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York.

Armitage Whitman, M.D , *Chairman*
Committee on Prize Essays

second interspace which was somewhat larger when re-examined in June, 1946 Absolute bed rest was advised In July, the lesion appeared better, and there were no abnormal lung signs or clinical symptoms

The patient was first seen by us in October, 1946, with reactivation of tuberculosis and questionable symptoms of tracheobronchial tuberculosis No pathology was seen on bronchoscopy In January, 1947, inhalation therapy was given with temporary paralysis of right diaphragm by crushing phrenic nerve Patient has been followed for eighteen months, and condition is satisfactory Sputums and gastric analyses are consistently negative

All forms of modern collapse therapy for pulmonary tuberculosis predate the antibiotic era During the last quarter of a century, and especially during the last decade, sufficient evidence has become available to show that, in spite of countless technical and mechanical devices, collapse therapy has lamentably fallen far short of the desired goal Of more recent date, streptomycin in adequate quantities has been made available However, associated with the usual mode of administration of streptomycin, some patients may become worse since they develop resistant strains with the resulting clinical danger

We believe, therefore, that the method of choice for therapy of pulmonary tuberculosis may be the use of aerosolized antibiotic therapy, using a germicidal detergent as the solvent No form of collapse therapy or lobectomy should be attempted until this simple, nonmutilating method has been thoroughly investigated

Tuberculous Sinus

The fundamental studies by Schatz, Bugie, and Waksman in isolating streptomycin and the experimental studies by Feldman and Hinshaw led to the clinical use of this antibiotic in the treatment of pulmonary tuberculosis [5,6] We feel that the results might be improved if the basic concept previously noted is followed We believe, also, that cases of chronic draining tuberculous sinuses are an ideal group for topical therapy with streptomycin without concurrent parenteral therapy This almost hopeless complication of tuberculosis might easily be cured

Case 11 —This patient, known to have pulmonary tuberculosis since 1934, had had all accepted forms of therapy until October, 1946 There has been chronic draining since 1939 of a tuberculous sinus secondary to tuberculous empyema for which a complete thoracoplasty was done in 1939 In October of 1946, the patient was hospitalized and treated with a detergent solvent with streptomycin The sinus promptly closed and remained so for seventeen months until February, 1948, when it reopened. At this time, treatment consisted of installation every four hours, night and day, of 4 ml. of the following solution 1 Gm. of penicillin and 1 Gm of streptomycin dissolved in the detergent zephiran chloride, aqueous solution, 1 1,000 The treatment lasted for ten days The sinus closed and shows no signs of recurring four months after cessation of therapy

This case report of a draining tuberculous fistula in which biopsy and bacteriologic studies confirmed the diagnosis supports our theoretic contention that topical detergent antibiotic therapy is the method of choice We have noted none of the toxic effects—dizziness, deafness, or other commonly described complications

If confronted with a similar case, we would unhesitatingly follow the penicillin-streptomycin detergent therapy Originally, we concentrated on Mycobacterium tuberculosis and used only streptomycin detergent therapy ignoring the significant problem of secondary invaders In our second attempt with the use of the penicillin-streptomycin detergent therapy, we were guided by accumulated clinical and experimental experience This simple method of therapy for tuberculous sinuses is strongly indicated as the one of choice in view of the clinical benefits and the small amount of streptomycin used—2 Gm as opposed to 200 to 250 Gm currently used in other technics Before final conclusions can be drawn, it would be desirable to study a larger series of cases

Lung Abscess

The putrid lung abscess is one of the most acute fulminating forms of pulmonary suppuration The accepted treatment has been immediate surgical drainage to remove the suppurative material from the lung and to allow oxygen to enter the abscess cavity to alter the anoxic environment in which the anaerobes thrive It has been felt that without surgical intervention the outlook is almost always fatal

Case 12 —This patient presented a severe infection of the right lung Roentgen diagnosis of large lung abscess and a clinical diagnosis of putrid lung abscess was made There were no results with all accepted medications including sulfa and penicillin Penicillin detergent aerosol therapy was administered, following the technic as described for pulmonary tuberculosis Therapy lasted ten days, and the patient made an uneventful recovery A two-year follow-up recently found the patient in good health without pulmonary symptoms

Case 13 —According to a local physician, this patient had a putrid empyema seven years ago In an emergency, a large rubber tube was inserted into the lung abscess The tube was removed after the acute phase However, the patient immediately

many others if the blocks for histologic sectioning had been more judiciously chosen. In over 83 per cent of the cases possessing a capsule it was possible to demonstrate capsule invasion, although it is realized that there are varying opinions of what constitutes this feature Rigorous criteria must be satisfied before some pathologists accept the fact that the capsule has been penetrated Stout has pointed out the difficulty of determining the presence or absence of invasion by thyroid tumors because of the frequency of hemorrhages and cicatrices in the thyroid gland and that in the resulting scar tissue the inclusion of deformed and otherwise altered thyroid gland cells and acini is frequent and gives the appearance of invasive growth [5]

Graham called attention to the importance of invasion as an aid in determining ot a thyroid neoplasm is benign or He stated that in his series he had blood vessel invasion in "papillifmomata" Graham stated that plied only to a particular form growth, and he called od vessel invasion er types of papilof malignant or nder discussion, dence of blood of blood vessel bably accounts low degree of ors" which in papillary ere found to le to decide essels gether with formation nto epithethyroid may sses, as t an inodular n of hese disurs ss fic ss he n e n

some papillae the fibrous element is reduced to a delicate membrane acting as a support for vascular endothelium on one hand and epithelial elements on the other This sort of papillation is found in non-neoplastic conditions such as Graves disease and in the papillary infoldings sometimes encountered in nodular goiter

In neoplastic disease, however, the papillae contain relatively large amounts of fibrous tissue Since the presence of large amounts of fibrous tissue is the most obvious difference between neoplastic and non-neoplastic papillation it was thought that further investigation might reveal interesting facts The fibrous core of the papillae seems to determine the general pattern, or variations thereof, in a given tumor Thus, the papillae may be simple or branched, slender or thick. The fibrous core of a papilla is subject to all the ills to which fibrous tissue elsewhere is heir Specific changes such as cellular infiltrations and retrogressive alterations will be discussed later

Because of a deplorable lack of follow-up data, it was impossible to determine the malignancy or innocence of a tumor by its effect on the patient's life As an expedient, admittedly poor and questionable, it was decided to study the lesions in the light of opinions rendered by persons who have had more than ordinary experience in the histologic diagnosis of thyroid neoplasms It was hoped that this method would discover some trend in the thinking of such persons that might be of value to others who are required to make diagnoses on thyroid tumors The 87 tumors were accordingly divided into three groups

A lesion was classed as "malignant" if it had been so designated by at least two members of the committee and the submitting pathologist and had not been considered benign or questionably benign by any of the consultants or other members of the committee There were 60 tumors in this group

A lesion was classed as "doubtful" if it was regarded as benign by any of the consultants or by the committee chairman regardless of the number who thought it malignant There were 25 tumors in this group

Since only two tumors were regarded as "benign" by all observers who studied them, this small number was thought to be of no statistical value Accordingly, various attributes of 60 uncontestedly malignant tumors and of 25 doubtfully malignant tumors were tabulated

An attempt was made (Table 1) to estimate the proportion of papillary to nonpapillary tissue by grouping according to the amount of papillation present

Since 36 per cent of the tumors composed almost entirely of papillae fall in the doubtful

PAPILLARY TUMORS OF THE THYROID GLAND

G H Klinck, Jr , M D , Troy, New York

(From the Department of Pathology, Samaritan Hospital)

MALIGNANT disease of the thyroid gland constitutes a confusing chapter in oncology This statement is attested by the perplexing terminology employed and by the difficulty experienced in forecasting the life history of some of the growths Certain forms of malignant disease of the thyroid gland are not a real problem since the behavior of these tumors follows that of similar tumors arising in other organs Thus, patients with giant cell, spindle cell, squamous cell, or small cell tumors and anaplastic adenocarcinomas usually die within relatively short periods of time

There is much confusion regarding the benign or malignant nature of the papillary tumors Willis writes, "Papillary adenomas cannot be distinguished from papillary carcinomas," and he continues, "The discovery that an enucleated tumor has a papillary structure, however highly organized and quiescent in appearance, calls for at least partial thyroidectomy of the tumor-bearing part of the organ and a guarded prognosis "[1] Dunhill saw only two tumors which he regarded as "benign papillomas," and one of these recurred [2] Crile feels that it is not possible, on histologic criteria alone, to classify a tumor as to whether it is a nonpapillary carcinoma with a few papillary foci or whether it is a papillary carcinoma with nonpapillary foci [3] He feels that distinguishing between the two is necessary since the clinical course of each type is different, the papillary tumors being relatively benign. Thus it is evident that differences of opinion exist regarding tumors containing papillae

In the hope of discovering further criteria for the appraisal of such neoplasms and of finding out, if possible, what factors influenced experienced observers in designating a tumor as benign or malignant, this preliminary study of an unselected group of thyroid tumors showing papillation has been undertaken Particular attention has been directed to the papillae—their form, cellular content, and retrogressive changes The material consists of 87 thyroid neoplasms containing papillary formations These represent 27 3 per cent of the 318 thyroid neoplasms, malignant or suspected of being malignant, in the hands of the Committee on Thyroid Cancer of the American Goiter Association Of the 87 lesions only two have been accepted by all examiners as benign The remaining 85 tumors have been classed as malignant or doubtfully malignant There is a strong indication that some observers regard the presence of papillae as a bad sign and are reluctant to designate a lesion as innocent if papillation is present

Of the 87 tumors, the submitting pathologists designated 70 as malignant, 11 as doubtfully malignant, and six as benign Not all of the tumors have been studied by each member of the committee and by each of the consultants, but the results to date show that one consultant, in examining 47 tumors, found 14 (30 per cent) benign and one doubtfully malignant, another consultant studied 22 tumors and designated one (4 per cent) as benign, another reviewed 20 lesions and found one (5 per cent) benign, and two members of the Committee studying all 87 tumors regarded seven (8 per cent) as benign It is apparent that the interpretation of the criteria denoting the presence or absence of malignant disease in the thyroid gland varies widely

Of the 87 lesions, 80 were in women and seven in men, indicating a ratio of about 11 to one In women most of the tumors occurred in the fifth decade The smaller number of men having papillary tumors makes any figures concerning age incidence unreliable It is generally agreed that in all forms of thyroid cancer there is an excess of women afflicted, usually in the ratio of approximately four women to one man Our finding of 11 women to one man makes it appear that neoplasms having papillary formations are particularly prone to occur in women This ratio is even greater than the five to one frequency of Graves disease among women and men Although the majority of the tumors containing papillae were regarded as malignant, it is important to note that, of the 87 cases in this series, 74 had but one operation, 8 had two operations, and 5 had three operations These data might indicate that recurrences are not very frequent and bear out Crile's contention that it is possible to remove all of the neoplastic tissue even after relatively widespread cervical lymph node involvement [4]

The opinion that papillary tumors usually arise in pre-existing adenomas is sustained by finding histologic evidence of a capsule in 75 per cent of the cases in this series It is probable that a capsule would have been demonstrated in

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York New York City Section on Pathology and Clinical Pathology May 19 1948.

many others if the blocks for histologic sectioning had been more judiciously chosen. In over 83 per cent of the cases possessing a capsule it was possible to demonstrate capsule invasion, although it is realized that there are varying opinions of what constitutes this feature Rigorous criteria must be satisfied before some pathologists accept the fact that the capsule has been penetrated Stout has pointed out the difficulty of determining the presence or absence of invasion by thyroid tumors because of the frequency of hemorrhages and cicatrices in the thyroid gland and that in the resulting scar tissue the inclusion of deformed and otherwise altered thyroid gland cells and acini is frequent and gives the appearance of invasive growth.[5]

Graham called attention to the importance of blood vessel invasion as an aid in determining whether or not a thyroid neoplasm is benign or malignant [6] He stated that in his series he had not observed blood vessel invasion in "papilliferous adenocarcinomata" Graham stated that this comment applied only to a particular form of intracystic papillary growth, and he called attention to the fact that blood vessel invasion occurs regularly in certain other types of papillary growths [7] In the 85 cases of malignant or doubtfully malignant disease under discussion, 12 (14.1 per cent) showed evidence of blood vessel invasion. The incidence of blood vessel invasion in papillary tumors probably accounts for Crile's opinion regarding the low degree of malignancy of "lateral aberrant tumors" which generally, but not always, abound in papillary formations [4] In four cases vessels were found to be invaded, but it was not possible to decide whether they were blood or lymph vessels

The thyroid gland epithelium, together with stroma, exhibits a propensity for the formation of finger-like or polypoid projections into epithelial-lined spaces Papillation in the thyroid may be the result of non-neoplastic processes, as occurs in hyperthyroidism, it may reflect an increased secretory activity occurring in a nodular goiter, or it may follow the administration of thiourea derivatives The responses of these stimuli follow a more or less uniform and distinctive pattern. Neoplastic papillation occurs as a result of some other unrecognized process This change is not characterized by a specific histologic pattern but by an almost endless variety of patterns Papillary projections in the thyroid consist of a fibrovascular core with an epithelial covering As a rule, the epithelial investment is only one cell layer deep, but in some instances the cells may be piled upon one another The fibrovascular core contains varying proportions of fibrous tissue and blood vessels In some papillae the fibrous element is reduced to a delicate membrane acting as a support for vascular endothelium on one hand and epithelial elements on the other This sort of papillation is found in non-neoplastic conditions such as Graves disease and in the papillary infoldings sometimes encountered in nodular goiter

In neoplastic disease, however, the papillae contain relatively large amounts of fibrous tissue Since the presence of large amounts of fibrous tissue is the most obvious difference between neoplastic and non-neoplastic papillation it was thought that further investigation might reveal interesting facts The fibrous core of the papillae seems to determine the general pattern, or variations thereof, in a given tumor Thus, the papillae may be simple or branched, slender or thick The fibrous core of a papilla is subject to all the ills to which fibrous tissue elsewhere is heir Specific changes such as cellular infiltrations and retrogressive alterations will be discussed later

Because of a deplorable lack of follow-up data, it was impossible to determine the malignancy or innocence of a tumor by its effect on the patient's life As an expedient, admittedly poor and questionable, it was decided to study the lesions in the light of opinions rendered by persons who have had more than ordinary experience in the histologic diagnosis of thyroid neoplasms It was hoped that this method would discover some trend in the thinking of such persons that might be of value to others who are required to make diagnoses on thyroid tumors The 87 tumors were accordingly divided into three groups

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Since only two tumors were regarded as "benign" by all observers who studied them, this small number was thought to be of no statistical value Accordingly, various attributes of 60 uncontestedly malignant tumors and of 25 doubtfully malignant tumors were tabulated

An attempt was made (Table 1) to estimate the proportion of papillary to nonpapillary tissue by grouping according to the amount of papillation present

Since 36 per cent of the tumors composed almost entirely of papillae fall in the doubtful

TABLE 1 —PAPILLATION IN TUMORS

Approximate % of Papillae	All 85 Tumors	60 Malignant Tumors	25 Doubtful Tumors
± 5	18 (21%)	15 (25%)	3 (12%)
±25	13 (15%)	10 (17%)	3 (12%)
±50	15 (17%)	12 (20%)	3 (12%)
±75	11 (13%)	9 (15%)	2 (8%)
Up to 100	20 (24%)	11 (18%)	9 (36%)

group, it is possible that the presence of almost complete papillation might be regarded as a token of innocency It must be emphasized, however, that certain students regard the presence of papillae, in large or small numbers, as an omen of evil

It was noted that some tumors had papillae consisting of a fibrovascular core alone, while others contained neoplastic acini as well It was further noted that in some instances acini, containing colloid and resembling those found in adjacent nontumorous thyroid tissue, were present (Table 2)

TABLE 2 —ACINAR CONTENT OF PAPILLAE

	All 85 Tumors	60 Malignant Tumors	25 Doubtful Tumors
Papillae with neoplastic and normal acini	41 (48%)	26 (43%)	15 (60%)
Papillae with normal acini	12 (14%)	7 (12%)	5 (20%)
Papillae with neoplastic acini	29 (34%)	19 (32%)	10 (40%)
Papillae without acini	44 (52%)	34 (57%)	10 (40%)

These findings suggest that normal acini are not often, but can be, present in the papillae of malignant lesions and, further, that neoplastic acini are found quite often in cases of doubtful malignant disease

Very little attention has been paid to the presence of lymphocytes and plasma cells in the papillae of thyroid gland neoplasms The following study was made in order to find out whether the presence or absence of these cells is of significance (Table 3)

TABLE 3 —LYMPHOCYTES AND PLASMA CELLS IN PAPILLAE

	All 85 Tumors	60 Malignant Tumors	25 Doubtful Tumors	Average Age of All Cases
Lymphocytes and plasma cells	29 (34%)	23 (38%)	6 (24%)	40
Lymphocytes	10 (12%)	7 (12%)	3 (12%)	49
Plasma cells	11 (13%)	11 (18%)	0	50
No lymphocytes or plasma cells	56 (64%)	37 (62%)	19 (76%)	59

No significant differences in the presence or absence of lymphocytes and/or plasma cells in the malignant or doubtfully malignant tumors were found The distribution of lymphocytes was found to be greater in the younger age groups This finding is in accord with the relative prevalence of lymphocytes in other tissues in young individuals

Retrogressive tissue changes in the stroma of papillae were found to be distributed as shown in Table 4

TABLE 4 —RETROGRESSIVE CHANGES IN THE STROMA OF PAPILLAE

	All 85 Tumors	60 Malignant Tumors	25 Doubtful Tumors
Psammomatous bodies			
in papillae	9 (11%)	7 (12%)	2 (8%)
in spaces	9 (11%)	7 (12%)	2 (8%)
Hemosiderin			
in papillae	3	1	2
in spaces	16 (19%)	12 (20%)	4 (16%)
Foam cells			
in papillae	11 (13%)	9 (15%)	2 (8%)
in spaces	19 (22%)	17 (28%)	2 (8%)
Hyalinization of papillae	29 (34%)	18 (30%)	11 (44%)
Edema of papillae	13 (15%)	7 (12%)	6 (24%)

Except for a relatively larger number of tumors with edematous papillae in the doubtfully malignant group and a relatively larger number of tumors with "foam cells" in the malignant group no significant relationships were found

The presence of hyperthyroidism and the number of cases having multiple operations are shown in Table 5

TABLE 5 —MISCELLANEOUS DATA

	All 85 Tumors	60 Malignant Tumors	25 Doubtful Tumors
Hyperthyroidism	22 (24%)	19 (32%)	3 (12%)
Number of operations			
2	12 (14%)	6 (10%)	6 (24%)
3	7 (8%)	4 (7%)	3 (12%)

The high proportion of cases in which hyperthyroidism was said to have been present makes it necessary to question the evidence on which these opinions were based Because of the small number of cases having more than one operation, it is not wise to draw generalizations In this series, however, the patients with unquestioned malignant tumors had only half as many multiple operations as those with questionably malignant tumors Inferences as to the significance of this cannot be made until more follow-up data are at hand

The available data indicated that seven of the 87 lesions might be classified as so-called "lateral aberrant tumors" No information which might help clarify the conflicting theories regarding such lesions was discovered

Squamous metaplasia was considered to be present in five cases The malignant group contained three of these, and the doubtful group contained two The degree of squamous metaplasia was slight in all cases, and further studies would be required to prove that such metaplasia was present beyond doubt in every instance

Conclusions

The following information was elicited from this study

Tumors composed almost entirely of papillae occurred twice as frequently in the doubtful group as in the malignant group

Tumors having small proportions of papillae were more frequent in the malignant group

Tumors with only "normal acini" in the papillae occurred relatively more often in the doubtful group

No significant differences in the presence or absence of lymphocytes and/or plasma cells were found in the malignant and doubtful groups It was noted, however, that tumors containing either or both of these cells were found more often in the younger individuals

"Foam cells" were found more frequently in the tumors classified as malignant

Papillary tumors were found 11 times more frequently in women than in men

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NOTE The author values highly the helpful comments made by Dr Allen Graham during the preparation of this paper

Dr Klinck is now at the Army Institute of Pathology Washington 25 D C

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PICKPOCKET MEDICINE

"Pickpocket Medicine" was the title of an address which John L. Bach, director of press relations of the A.M A., delivered recently

His talk stressed the dangers of any form of compulsory insurance for the American people as advocated in the recent report by Federal Security Administrator Ewing. Pointing out that any such plan would necessitate a new payroll tax and the addition to the public payroll of at least 300,000 administrative people to handle the paper work, Mr Bach said "Mr Ewing's plan, costly as it is, is no cure-all for the health care ills of the nation, it is merely a highly tooted snake medicine that falls in the realm of quackery "—*Secretary's Letter, A.M A , November 15, 1948*

WOMEN DOCTORS FOR NAVY

On October 18 the Navy announced a plan for giving commissions to women doctors who have completed internships in civilian hospitals In addition, it hopes to take 25 women doctors into Navy hospitals as interns

NEW INSULIN MIXTURE MORE EFFECTIVE

A new insulin combination which gives the diabetic patient a smoother balance and gentler action and, in addition, allows him more freedom from the hypodermic needle and greater social latitude, has just been announced.

A two-to-one preparation of standard insulin, and protamine insulin, now known only as "2 1 mixture," the product has been used over a period of six years on more than 500 severe diabetics by Dr Arthur R. Colwell, associate professor of medicine at Northwestern University, and president of the Chicago Diabetes Association Ninety per cent of his patients using the new combination need only one injection a day, usually administered in the morning, while the most severe cases require two divided doses a day Like other insulin products, 2 1 may be injected subcutaneously by the patient himself

Not only is a 2 1 mixture more effective in its results on diabetes, but it eliminates hundreds of injections a year per patient, Dr Colwell said "Under the older system, thousands of diabetics, in the course of 20 years, were obliged to run a needle through the skin 20,000 times," he explained.

CONFERENCES ON THERAPY

DEPARTMENTS OF PHARMACOLOGY AND MEDICINE, CORNELL UNIVERSITY MEDICAL COLLEGE AND NEW YORK HOSPITAL

THESE are stenographic reports of conferences by the members of the Departments of Pharmacology and of Medicine of Cornell University Medical College and New York Hospital, with collaboration of other departments and institutions. The questions and discussions involve participation by members of the staff of the college and hospital, students, and visitors A selected group of these conferences is published in an annual volume, *Cornell Conferences on Therapy*, by the Macmillan Company

Treatment of Cardiovascular Syphilis

DR BRUCE WEBSTER The subject of the conference today is the treatment of cardiovascular syphilis

As most of you know, if early syphilis is not treated, approximately 10 per cent of those infected develop cardiovascular lesions The best method of dealing with the problem of cardiovascular syphilis, therefore, is to prevent it by the adequate treatment of early syphilis We may now be on the threshold of a new era in the control of syphilis because of the liberal use of penicillin, not only as a specific measure in cases in which the diagnosis of syphilis is established but also as an antibiotic measure in other diseases with which unrecognized syphilis may coexist

There has been a revival of interest in the subject of cardiovascular syphilis in recent years Not so long ago, the chief interest in these patients centered on the diagnosis The attitude of many clinicians was fatalistic, and very little was done, particularly in the way of antisyphilitic therapy The treatment of cardiovascular syphilis falls into two phases one is the general management of the cardiac state, and the other is the specific therapy directed against the underlying infection.

Dr Reader will open the discussion.

DR GEORGE READER Dr Webster has already indicated the importance of cardiovascular syphilis and the number of cases which might occur if syphilis is untreated In addition to being one of the important forms of heart disease, cardiovascular syphilis is one of the most important forms of syphilis, patients with syphilis die from either the neural or cardiovascular form and very rarely from any other

Cardiovascular syphilis results from the invasion of the heart and great vessels by the Treponema pallidum Its basic lesion is an arteritis of the vasa vasorum, by simple extension or by interference with nutrition, this lesion produces a break in the elastic tissue of the media of the aorta, dilatation of the aorta, and contracture of the aortic cusps The process may cause partial or total occlusion of the coronary arteries by extending to involve their ostia Rarely, the myocardium may be damaged by direct invasion by the treponemas and, still more rarely, gumma formation may occur in the heart or great vessels

The various lesions of cardiovascular syphilis may be classified as follows uncomplicated aortitis, saccular aneurysm, aortic insufficiency, coronary artery atresia, syphilitic myocarditis, and gumma formation Uncomplicated aortitis produces an irregular fusiform dilatation of the aorta, but it is generally agreed by students of the subject that this should not be called aneurysm When I use the term aneurysm today, I will be referring only to saccular aneurysms The differentiation of these various forms of cardiovascular syphilis is a matter of some importance, but by long odds the most significant point is to determine whether the patient has syphilis A history is of great help More crucial information is secured from a serologic test for syphilis In patients with cardiovascular syphilis who have never been treated, this test is positive in the vast majority of cases Negative tests in such cases were present in less than 2 per cent in the general experience and in even fewer number in our experience here at New York Hospital The 5 to 10 per cent incidence of negative serologic tests in untreated cardiovascular syphilis is based on the relatively insensitive Wassermann which was done prior to 1938 Two factors will influence the interpretation of a negative serologic test for syphilis in a patient with signs suggesting cardiovascular syphilis A history of treatment with bismuth, arsenic, or penicillin, even in small amounts, is often definitive in establishing the diagnosis of syphilis The same is true of the presence of a lesion characteristic of syphilis, such as the Argyll-Robertson pupil

Physical signs and the x-ray are the chief means for the recognition of the lesions of cardiovascular syphilis. Angiocardiography is extremely helpful The latter is the only means for the detection, with any degree of certainty, of uncomplicated syphilitic aortitis Unless the aortic dilatation is extreme, it can rarely be detected by physical signs The angiocardiogram reveals the irregular dilatation of the ascending aorta, a lesion which is almost exclusively confined to syphilitic aortitis Arteriosclerosis may produce some aortic dilatation, but Dr Charles Dotter, in his angiocardiographic studies at the New York Hospital, rarely encountered a widely dilated aorta from this cause Calcification of the ascending aorta is strong presumptive evidence of syphilis, since in arteriosclerosis this change predominates in the descending portion Hypertension, which may also produce dilatation of the aorta, is distinguished from syphilis by the fact that in hypertension the dilatation is regular and fusiform in contrast to the irregular, saccular dilatation of syphilitic aortitis The angiocardiogram provides the only means for the diagnosis of some cases of aortic aneurysm

An aortic diastolic murmur in the absence of rheumatic heart disease is presumptive evidence of cardiovascular syphilis Hypertension and arteriosclerosis may cause an aortic diastolic murmur, but most experiences are in accord with the belief that aortic insufficiency as the result of either hypertension or arteriosclerosis is rare

Atresia of the ostia of the coronary arteries as the result of syphilis is always a presumptive diagnosis It is to be suspected when angina occurs in a patient with syphilitic aortitis and aortic insufficiency I wish to lay emphasis on the point that the angina representing coronary atresia is likely to be due to syphilis only when aortic insufficiency is also present This has been our experience in the syphilis clinic of the New York Hospital

Syphilitic myocarditis and gumma of the heart are extremely rare, and their diagnosis always remains little more than a suspicion in unusual cases

The chemotherapy of cardiovascular syphilis is a matter of controversy There are two primary questions

Does the treatment accomplish any conspicuous beneficial results? Are there important dangers?

Let me state our position at the outset We believe it is beneficial and that the dangers are not significant Our practice is to treat them intensively The plan we pursued previously consisted of 100 intravenous injections of 0 03 to 0 06 Gm of Mapharsen and 100 intramuscular injections of 0 2 Gm. of bismuth subsalicylate Now that the more potent antispirochetal penicillin is available, we use this In our present experimental schedule of therapy, we give 20,000 units of an aqueous solution of penicillin intramuscularly every three hours, or a single injection of 300,000 units (preferably procaine penicillin), every day for fourteen days, and follow either of these schedules with a course of 300,000 units of aqueous or procaine penicillin twice a week for ten weeks

The decision to employ large amounts of potent antisyphilitic agents was based on the assumption that a low-grade infection such as is found in cardiovascular syphilis would require large doses of the drugs The choice of the schedule in the case of penicillin was based on the experimental evidence in bacterial diseases, confirmed by Dr Harry Eagle for experimental syphilis, that a continuous level of penicillin was not necessary to achieve therapeutic results

The nature of the pathology of cardiovascular syphilis helps to understand what may be expected from specific chemotherapy The spirochete invades the aorta early in the course of generalized infection, but it takes an average of ten years to produce sufficient damage to make the diagnosis clinically evident It accomplishes the end result by damaging the vasa vasorum and interfering with the nutrition of the media Elastic tissue in the media breaks and produces stress on the intima The aortic wall is weakened, it dilates and eventually sacculates The aortic valve cusps contract as the media around them scars, and the coronary ostia are compromised by the same process This theory, the nutritional-mechanical, is the one which most pathologists accept It does not rule out the presence of spirochetes in the intima In a fulminating case of aortitis the spirochetes may well be present throughout the whole wall, but the major damage is produced indirectly by an arteritis of the vasa vasorum

Hu, Lin, Chen, and Frazier have settled the question of whether or not virulent treponemas are present in the aorta in cardiovascular syphilis They ground up the aorta of a patient who had died from syphilitic aortitis and injected it into rabbits Most of their rabbits developed syphilis which is proof that virulent organisms were present in the vessel wall Specific therapy directed against the treponemas would be expected, then, to produce healing of the lesions in the vasa vasorum and indirectly influence the whole pathologic process Treatment cannot restore the continuity of the elastica, and dilatation and contracture may continue for some time before proliferation of fibrous tissue renders the process static Our studies here have confirmed this Moore, Dang-

lade, and Riesinger showed in 1932 that life expectancy after the onset of symptoms from aneurysm is increased by specific therapy to an average of seventy-five months from an average of nineteen months in untreated cases Our data show that patients may live for as long as fourteen years after the original diagnosis of aortic insufficiency Our experience here at the New York Hospital, therefore, shows a much more favorable prognosis in aortic insufficiency than is the common view There is little reason for doubting that these results are, at least in part, due to our intensive use of chemotherapy in these cases

Last year Dr Webster and I followed up the work of Dr Howe at this hospital, by examining microscopically the aortas of all patients who came to autopsy here We compared 19 untreated cases with 19 cases that had received at least 20 injections of arsenic and 20 injections of bismuth Among the 19 treated cases, only three showed an active inflammatory process, on the other hand, all of the 19 untreated cases showed active cellular infiltration of the aorta This suggested healing of the lesion by specific therapy There was also the suggestion that bismuth alone had little effect on the aortitis compared with arsenic, but the number was too small for a final decision to be reached

Much has been written concerning the dangers of chemotherapy in cardiovascular syphilis That accidents have occurred is beyond doubt Such patients have been known to die of ventricular fibrillation from an ordinary dose of arsphenamine The other forms of trivalent arsenic are safer, but even with these a nitritoid reaction or a severe bout of vomiting may prove disastrous in a patient with serious impairment of cardiac function However, the dangers of chemotherapy in cardiovascular syphilis have received more weight than they deserved

The Jarisch-Herxheimer reaction is a danger that is prominently featured It seems to us the least important of all the untoward responses In a search of the literature, I failed to find a single case of death immediately after the onset of treatment, which was proved at autopsy to be due to swelling around the coronary ostia Most reports of a supposed cardiovascular Herxheimer reaction fail to carry conviction You may recall the cases reported in the *J.A.M.A.* a few years ago For the most part, there were accounts of patients with cardiac pain before, during, and after treatment with arsenic and bismuth or penicillin but without satisfactory evidence that the pain was related to the treatment Most syphilologists now begin treatment with full doses of arsenic or penicillin and ignore the hazard of a Jarisch-Herxheimer reaction which is essentially theoretic It is certain that one cannot avoid a Herxheimer reaction by beginning treatment with small doses, since it has been shown in the case of secondary syphilis that as soon as the dose becomes sufficient to prove therapeutically effective, the Herxheimer reaction may take place

The therapeutic paradox seems to be another bogey Attention was originally called to this phenomenon by the experience that patients with syphilitic heart disease sometimes went into failure during and after specific therapy If one examines some of the early reports, one finds that some of these patients had heart failure before treatment, that the failure was brought under control, and that they subsequently developed failure again. There is no clear proof in these that the specific therapy was anything more than incidental in the course of these events, for bouts of failure with temporary periods of recovery are known to occur in other forms of heart disease The notion of the therapeutic paradox has also been applied to the case of aortic insufficiency and to angina in consequence of narrowing of the coronary ostia There is the possibility that, after specific therapy eliminates the active process, the ensuing scar formation may lead to aortic insufficiency as the result of contracture of the aortic cusps Such scarring at the coronary ostia may also diminish coronary flow It is quite probable that such changes occur The experience in our clinic, with aortic insufficiency occurring in this way, indicates that it is a benign process with self-limiting progression It is our belief that disability from either aortic insufficiency or coronary atresia arising in this manner is essentially theoretic and that the so-called therapeutic paradox should not be used as a basis for withholding specific therapy in cardiovascular syphilis

There is a legend with regard to the nonspecific therapy of cardiovascular syphilis that treatment with digitalis and other drugs usually called upon in cardiac failure is of little benefit in a patient with syphilitic aortic insufficiency This is quite without basis in fact We have proved time and again in the New York Hospital that patients with cardiovascular syphilis, who have gone into failure, respond to digitalis and mercurial diuretics in the same manner as patients with any other type of heart disease

DR WEBSTER This discussion by Dr Reader has brought up a number of points which are controversial and which will warrant further discussion

Dr Gold, do you have any comments?

DR. HARRY GOLD I might ask a question or two on some points which I have jotted down What proportion of patients with syphilis who come to postmortem for some reason unrelated to the syphilis show syphilitic involvement of the aorta?

DR. READER The figures, which are usually quoted relating to this point, concern autopsies of patients who have shown one or another lesion of syphilis In such a group, syphilitic lesions of the aorta occur in about 70 per cent In a group of patients with latent syphilis, that is, no manifest lesions of syphilis, I believe the incidence of aortic lesions at autopsy would be much smaller

DR. WALTER MODELL I should like to have this clarified for me I think the statement was made that it was not your intention to keep a sustained level of penicillin, since it had been demonstrated that such a level was not necessary If that is so, why is it that doses of penicillin are given every three hours in your regimen?

DR. READER The regimen represents a compromise Dr Walsh McDermott and others have expressed the belief that intermittent doses would be satisfactory, and, in fact, such schedules are being used Most clinics in the country are now using a schedule in which the penicillin is administered for about two weeks Such a period of treatment seemed to us to be short for a disease with the type of pathology found in cardiovascular syphilis Therefore, we adopted the plan of an intensive treatment for a period of two weeks and extended the treatment through ten additional weeks during which a less intensive dosage schedule is applied

DR. WEBSTER Our therapy is a compromise because we did not feel satisfied to discontinue the treatment at the end of two weeks on the basis of the histologic evidence Cardiovascular syphilis appeared to be more resistant to arsenical therapy than other forms of syphilis Therefore, we reasoned that it might prove more resistant to penicillin We believed that we had a greater chance for success by prolonging treatment over a period of about ninety days

DR GOLD Is this method which you have just outlined the one you advocate for routine use at the present time?

DR. WEBSTER We are using it

DR. GOLD You do not give any arsenic or bismuth?

DR WEBSTER I would not

DR. GOLD Only penicillin?

DR WEBSTER The Veterans Administration and the Army have adopted the plan of giving penicillin for two weeks as their therapy for cardiovascular syphilis Similarly, in Dr Stokes' clinic in Philadelphia and in Dr Moore's clinic in Baltimore, they are treating cardiovascular syphilis with penicillin given continuously over two to three weeks

DR GOLD Are the patients ambulant?

DR WEBSTER Here we hospitalize them for two weeks and then carry them on an ambulatory basis

DR GOLD Would you have any objection to having the patient receive the injections of the first two weeks while he is up and about and working?

DR WEBSTER No

DR SEYMOUR RINZLER Do you have any statistics on the comparison of the results with penicillin and arsenicals?

DR. WEBSTER That question brings up the matter of how to evaluate results in cardiovascular syphilis The ultimate evaluaton is made in terms of the length of time the patient survives after the diagnosis is made and the nature of the findings at autopsy

DR RINZLER Do you have any comparative statistics?

DR WEBSTER It is still too early for such data

DOCTOR What is the outlook for the patient with syphilitic aortic insufficiency from the time of the first bout of failure?

DR. READER The prognosis varies with the individual patient, and it is impossible to generalize It depends, in part, on the presence of other heart disease and on the general health of the patient We have patients in our clinic who have been treated with digitalis and mercurials for ten to fifteen years and who are still gainfully employed Their work load has had to be reduced They are not heavy laborers, but they are able to support themselves In general, the prognosis in most cases is now much better than the one- to two-year figures which are often quoted

DOCTOR Dr Reader, I would like to hear some more discussion on the differential diagnosis of early uncomplicated aortitis, that is, how does one decide between syphilis and arteriosclerosis as the etiologic factor?

DR READER I have little to add to what I have already said about this matter I can only emphasize that angiocardiography is extremely valuable as an aid Calcium deposition in an irregularly dilated ascending aorta in the presence of a positive serologic test for syphilis or a history of antisyphilitic therapy constitute strong support for the diagnosis of syphilitic aortitis In contrast, arteriosclerosis rarely affects the ascending aorta and produces little or no dilatation, hypertension produces a regu-

lar, fusiform dilatation of the ascending aorta but not of the magnitude of that seen in syphilis A mistake can be made when the combination of hypertension and arteriosclerosis produces dilatation of the aorta in a patient with a positive serologic reaction However, the percentage is definitely in your favor if you call every case with calcified and dilated ascending aorta and a positive serologic test one of syphilitic aortitis and treat it as such With the present treatment the risk is negligible There are, to be sure, cases of syphilitic aortitis in which none of the foregoing signs are present, when the disease is in such an early stage that the clinical diagnosis cannot be made

DR WEBSTER We have always acted on the premise that a patient with a positive serologic test and a dilated ascending aorta should be treated as a case of cardiovascular syphilis By the present methods of treatment one would do no harm even if it turned out not to be syphilitic aortitis On the other hand, if the condition is syphilitic, withholding treatment would result in irreparable damage We have preferred to lean over backwards, and we have treated a few patients in whom treatment was perhaps unnecessary It has been pretty well proved at autopsy that the majority of lesions, the etiology of which seem uncertain clinically, turn out to be syphilitic when the final answer is obtained.

DR GOLD I want to ask you about a situation which we encounter not infrequently in the clinics In the typical case, a man, forty-five years of age with a blood pressure of 160/90, when examined fluoroscopically shows quite a bulge in the region of the ascending aorta in the P-A view, and in the oblique view the bulge is unquestionable The aorta gives the appearance of saccular dilatation. The patient has a negative blood Wassermann and a negative history for syphilis The reason I ask this question is that a dilated aorta in hypertensive and arteriosclerotic disease was described as rare earlier in this conference This seems to be one of the most common sources of diagnostic trouble in our clinics, namely, the patient with negative serology, hypertension and arteriosclerosis, and a bulging or widened ascending aorta Would you treat such a patient as a syphilitic?

DR WEBSTER Not with negative serology and without a history of syphilis I think you have to depend a great deal on the history in these cases

DR READER Do you do angiocardiograms on these patients, Dr Gold?

DR GOLD No

DR READER I think Dr Dotter has shown conclusively that it is impossible to ascertain by fluoroscopy alone whether the aorta is dilated. A tortuous aorta can simulate a dilated aorta Without angiocardiography one cannot be certain Dr Dotter has proved in several cases, in which a diagnosis of saccular aneurysm of the ascending aorta had been made in the absence of a history of syphilis, that the aorta was not sacculated but merely tortuous

DR GOLD I am not sure that I could agree that it is difficult to see a real bulge to the right of the sternum and a localized bulge at the beginning of the aorta, when the patient is examined fluoroscopically in the P-A and oblique views

DR READER I think it is quite common to find bulging of the aorta with hypertension because the pulsations are so prominent, but an actual saccular dilatation of the ascending aorta just does not occur without syphilis It is practically unknown. I am willing to stand on that

DR GOLD I agree that the typical sac is seen only in syphilis, but this represents an advanced lesion There is a stage in syphilis of the aorta where all one sees is a slight bulging It is in this stage in which we encounter all the difficulty in differentiating syphilis from arteriosclerosis or hypertension When one sees a large, rounded sphere in the region of the aorta, the differential diagnosis is not difficult by any method of examination, either angiocardiography or simple fluoroscopy In this connection I should mention that fluoroscopy is more satisfactory than the x-ray plate In the former examination advantage can be taken of the most favorable angle of rotation in the oblique positions for disclosing the maximum salient of a bulge

DR WEBSTER I would like to add a word about angiocardiography in the diagnosis of cardiovascular disease It has long been recognized that the diagnosis of uncomplicated aortitis is very difficult This is the most important stage of the disease in which to make the diagnosis because it is the stage in which treatment offers the best prognosis Angiocardiography seems to have answered many of our problems We started it with some trepidation because we were afraid of reactions The only complication has been a mild chemical thrombophlebitis which subsides readily Angiocardiography is the single most important advance which has been made in a long time in the diagnosis of this disease

DR GOLD Would you tell us how you do it?

DR. WEBSTER The technic is very simple Through a 12-gauge needle which has been introduced into an antecubital vein, about 40 or 50 cc of 75 per cent Neo-Iopax or 70 per cent Diodrast are introduced into the circulation It is the

usual procedure to take two left anterior oblique films The first is taken in an average of about ten seconds after the injection of the contrast medium has begun The interval varies with the cardiac status In the presence of failure, the interval is considerably longer The radiologists now have a special x-ray machine It takes a film at intervals of 0 6 second, and as many films as necessary can be taken The films are larger than the routine chest film to make accurate measurements possible

DR. GEORGE PEABODY In relation to Dr Gold's point about the diagnosis of early dilatation, I think the series of patients which we are now studying may be of some interest In these we obtained a simple chest x-ray and an angiocardiogram The angiocardiogram sometimes shows a dilatation which is not seen in the x-ray, and conversely, a contour interpreted as a dilatation in the x-ray fails to appear in the angiocardiogram The angiocardiogram has proved to be the only method of establishing the diagnosis of dilatation with certainty

DR. MCKEEN CATTELL In speaking of the therapeutic paradox, Dr Reader mentioned scarring as one of the complications of therapy Does he have evidence that scarring is less in the same period of time without treatment? Is scarring specifically accelerated by the treatment?

DR. READER I am not sure of that, Dr Cattell Our evidence indicates that scarring is part of the pathologic process, and it is our belief that it develops even after the inciting organism has been eliminated

DR PEABODY In view of what Dr Reader has just stated, what would be the significance of the serologic test? We have had patients with a diagnosis of uncomplicated aortitis who received treatment which we considered to be adequate and in whom the serologic test turned negative after the treatment Some of these, however, went on to develop aortic insufficiency We raised the question as to whether these should be re-treated Additional treatment would not be logical if the progression to aortic insufficiency were simply the result of an anatomic change in consequence of damage previously produced by the active infection Would a positive or negative serologic test after adequate treatment help to decide the issue?

DR WEBSTER That is a very good point

DR READER I believe that these patients provide evidence for the nutritional-mechanical mechanism of damage and indicate that it is not the active invasion of the aortic intima by spirochetes which produces the aortic insufficiency I do not believe that the kind of patient you describe needs to be re-treated, irrespective of whether the serology has become negative or has remained positive The important point in this connection is the fact which you mentioned, namely, that an adequate course of treatment had been given.

DR PEABODY I would also like to ask Dr Reader about another point We have recently seen several patients who were admitted to the hospital for treatment of syphilitic heart disease, because, under clinic supervision, they developed an early diastolic murmur The murmur was heard by several observers over a period of three to four months It was also heard within the first few days following hospitalization Thereafter, a controversy arose, many observers were unable to hear the diastolic murmur and disputed its presence Should that be taken to mean that rest abolished the murmur and that perhaps we are not employing rest sufficiently in the treatment of the patient with syphilitic heart disease?

DR. READER I think your observation is a common experience Of course, there always remains the possibility that the murmur was there and for some reason was not heard by the particular observer, but this has happened often enough to the same competent observers to leave little doubt that the murmur comes and goes Perhaps it can be explained by dilatation of the aortic ring The dilatation would be expected to increase when the heart is put under stress and to diminish when the stress is removed, with the result that the murmur would disappear Rest is a very important feature in the treatment of patients with cardiovascular syphilis These patients in failure need greater care than those in failure from rheumatic heart disease They must be warned to avoid overexertion, and even moderately heavy labor should be interdicted for the rest of their lives

DR GOLD I wonder whether dilatation of the aortic ring is the best explanation for the observation that the diastolic aortic murmur is heard at one time and not at another The aortic insufficiency is caused by distortion of the valves in such a manner as to make it impossible for them to make a tight closure The audibility of a murmur under these conditions is related to the kind of vibrations which are set up, and the latter in turn depend on the speed and pressure of the circulation Changes in these vibrations would be expected to occur with variations in physical exertion In this connection, it is noteworthy that even in the most advanced forms of heart failure from any cause, physical exertion, which produces marked increase in cardiac and vascular pressure with

marked dilatation, rarely, if ever, produces a basal diastolic murmur

DOCTOR How much penicillin is given in the ten-week period of treatment?

DR READER It makes a total of 6,000,000 units This is in addition to the 2,240,000 or 4,200,000 units which are given in the first two weeks, depending on which schedule is selected

DR WEBSTER One may ask whether we are justified in treating cardiovascular syphilis with penicillin at all We know that penicillin is probably the most potent antispirochetal agent in early syphilis We know its value in neurosyphilis and in syphilis during pregnancy It would seem to be a safe conclusion that, if it is so potent against spirochetes in all those conditions, it will prove effective in cardiovascular syphilis For final evaluation, a long-term study is necessary Plans for it are now in the making We shall have the definite answer only when the patients who are now being treated have lived out their lives and data are obtained revealing whether these lives were longer or shorter than their expectancy by other methods of treatment and also when a certain number have come to autopsy Penicillin therapy has few hazards I think we are justified in using it until some evidence appears to the contrary

Summary

DR CLARKE WESCOE The treatment of cardiovascular syphilis is a controversial subject There is no complete agreement even on such fundamental questions of whether specific antisyphilitic therapy exerts any beneficial effects or whether the beneficial effects which may occur are offset by the inherent dangers The position adopted by the workers in the syphilis clinic of the New York Hospital, who have devoted a great deal of attention to the problem of cardiovascular syphilis, was explored in the conference this afternoon Their experience leads them to the belief that intensive antisyphilitic therapy should be applied in all cases of cardiovascular syphilis They recommend penicillin as the therapy of choice and advocate a schedule of 20,000 units intramuscularly every three hours around-the-clock or 300,000 units (preferably procaine penicillin) daily, for the first two weeks, followed by 300,000 units twice a week for the next ten weeks

The defense of this position lies in the proof that spirochetes are active in the aorta of the patient with syphilitic aortitis and in the observation reported in the literature—that the duration of life from a particular point in the disease was about four times as long in cases that were treated as in comparable ones that went without treatment While the dangers of specific treatment in cardiovascular syphilis are recognized, emphasis was placed on the point that disasters are infrequent and that some of the hazards that are stressed in the literature, such as the Jarisch-Herxheimer reaction and the so-called therapeutic paradox, are, for the most part, hypothetic The discussion embraced points relating to differential diagnosis, the pathogenesis of the cardiovascular lesions of syphilis as a basis for understanding what may be expected from specific antisyphilitic drugs, and the use of nonspecific measures in cardiovascular syphilis The experience with angiocardiography leads to the belief that it is one of the most important aids for detecting the type of dilatation of the ascending aorta which is characteristic of syphilitic aortitis The view was expressed that arteriosclerosis and hypertension produce changes in the aorta that are difficult to distinguish grossly from those of uncomplicated syphilitic aortitis, but the point was made that the dilated ascending aorta, in the presence of positive serology, had best be considered as syphilitic aortitis and treated as such, since a large proportion of these prove to be syphilis, and the few in which that does not turn out to be the case are not injured by the relatively innocuous specific therapy which is now available

Another point of interest is the observation that angina pectoris in the patient with syphilis is likely to be an independent disease, unless it is encountered in association with aortic insufficiency In the detection of syphilitic cardiovascular disease, it is of first importance to ascertain whether the patient has syphilis, and in this connection it was pointed out that the high incidence of negative blood serology in cardiovascular syphilis no longer applies to the present-day problems The use of more sensitive tests show that the vast majority, 98 per cent or more, of cases of cardiovascular syphilis have positive blood serology The experience at the New York Hospital, based on the intensive use of specific antisyphilitic measures, formerly arsenicals and bismuth and now penicillin, as well as the liberal application of nonspecific measures, such as rest, digitalis, and the mercurial diuretics, indicates that there is much in cardiovascular syphilis which is accessible to control, and that the gloomy outlook of the past may no longer apply to this group of patients There is much promise in the routine use of penicillin for the control of cardiovascular syphilis, both in prevention and treatment The final proof awaits the evidence of the long-term investigations which are now in progress

NECROLOGY

Philip H. Bourne, M D , died on January 2 at the age of seventy-nine A physician in Salamanca for fifty-five years, Dr Bourne was graduated from the University of Michigan Medical School in 1891 He was a coroner for Cattaraugus County at the time of his death and was a member of the American Medical Association and the New York State and Cattaraugus County Medical Societies

William Ballantine Boyd, Sr , M.D , seventy-one, of New York City, died on December 1 Dr Boyd, a graduate of the College of Physicians and Surgeons, Columbia University, in 1905, was an alumnus of Sloane and Presbyterian Hospitals He had served as an assistant attending physician at Vanderbilt Clinic and for several years was in charge of the Personnel Medical Clinic

Fred J Douglas, M D , who represented the Thirty-third Congressional District for four terms, died at his home in Utica on January 1 after a long illness He was seventy-nine years old Active in the Utica political scene, Dr Douglas received his medical degree from Dartmouth Medical School in 1894 He joined the staff of Faxton Hospital in 1899 and from 1921 until 1932 was surgeon-in-chief He also served as a consultant surgeon at St Elizabeth and Utica State Hospitals, Utica Dr Douglas was a fellow of the American College of Surgeons and a member of the American Medical Association, the Utica Academy of Medicine, and the New York State and Oneida County Medical Societies

Thomas Irwin Henning, M D , died on January 8. His age was eighty-five. Dr Henning, who was made a Licentiate of the Royal College of Physicians, England, in 1890, had practiced medicine in Glens Falls from 1891 until his retirement twenty years ago He had also been a consultant on the staff of Glens Falls Hospital.

Alexander Codling Howe, M.D , eighty-six-year-old retired ear, nose, and throat specialist, died at his home in Brooklyn on December 23 Dr Howe was graduated from New York University College of Medicine, in 1893 He had been a surgeon at the Brooklyn Eye and Ear and Jewish Hospitals, a member of the board of Peck Memorial Hospital, and an attending surgeon on the staff of Methodist Hospital, Brooklyn He had also served as medical director of the Brooklyn Y M C A. Dr Howe was a fellow of the American College of Surgeons and a diplomate of the American Board of Otolaryngology and was a member of the American Medical Association and the New York State and Kings County Medical Societies

Myron Brill Morris, M.D , died of a heart attack on January 4 at the age of sixty-eight A physician and surgeon on Staten Island for forty-five years, Dr Morris was a graduate of Syracuse University Medical School in 1904 After his internship at St Joseph's Hospital, Paterson, New Jersey he joined the staff of St Vincent's Hospital, West New Brighton, Staten Island, in 1910 and served on the staff of that hospital until his retirement five years ago He continued to serve as consulting surgeon for the hospital even after his retirement He was chief surgeon for seven years and chief of the hospital staff for fifteen years Dr Morris had also been medical examiner for the New York State Athletic Commission for several years and during both world wars was chief physician at the Bethlehem Steel shipyards on Staten Island

Samuel H Nerenstone, M.D , of the Bronx, died on October 25 He was fifty-one years old Dr Nerenstone was graduated from Cornell University Medical College in 1923 He was chief of the proctologic service and a clinical assistant in surgery of the Lincoln Hospital Outpatient Department, Bronx Dr Nerenstone was a member of the New York Proctological Society, the American Medical Association, and the New York State and Bronx County Medical Societies

John Joseph O'Loughlin, M.D , fifty-five, died of a cerebral hemorrhage on December 14 Dr O'Loughlin received his medical degree from Fordham Medical School in 1918 He was a first lieutenant in the Army Medical Corps during World War I In addition to his practice in Howard Beach, Queens, Dr O'Loughlin served as an associate surgeon on the staff of Bushwick Hospital, Brooklyn He was a member of the American Medical Association and the New York State and Queens County Medical Societies

Michael Francis O'Shea, M.D , seventy-seven-year-old retired physician of West New Brighton, Staten Island, died on January 1 Dr O'Shea was graduated from Bellevue Hospital Medical College in 1897

Joseph Sweetman Parent, M D , died on December 7 Dr Parent, aged eighty-seven, had practiced medicine in the town and village of Galway for fifty-six years when he retired in 1942 He had also served as health officer for the town for several years He received his medical degree from Albany Medical College in 1886 He was a member of the Albany Medical College Alumni, the New York State and Saratoga County Medical Societies, and the American Medical Association

Leo S Schwartz, M D , of Brooklyn, died on December 31 at the age of sixty-six. Dr Schwartz, a graduate of Cornell University Medical College in 1908 and an alumnus of Jewish Hospital, Brooklyn, was formerly chief gynecologist and director of obstetrics at Jewish Hospital He was a clinical professor in obstetrics and gynecology at the Long Island College of Medicine and had also been chief of gynecology and director of obstetrics at Israel Zion Hospital, now a division of Maimonides Hospital.

Dr Schwartz was a director of the American Jewish Physicians' Committee, a fellow of the American College of Surgeons, and a diplomate of the American Board of Obstetrics and Gynecology He served as president of the Brooklyn Gynecological Society in 1932 and of the Kings County Medical Society in 1944 and was, in addition, a member of the American Medical Association and the New York State Medical Society

Mose Scuccimara, M D , a physician in Peekskill for twenty-nine years, died on December 26 at the age of sixty-five Graduated from Fordham Medical School in 1919 Dr Scuccimarra served as plant physician at Standard Coated Products from 1927 until his retirement last year, and was on the staff of Peekskill Hospital During the recent war he was examining physician for the Selective Service Board He was a member of

[Continued on page 315]

HOSPITAL NEWS

Hospitals Warned on Narcotics

DR HERMAN E HILLEBOE, State Health Commissioner, has called upon hospitals, pharmacists, and physicians to take greater care in guarding narcotic drug supplies There were more than twenty major thefts of such supplies from New York State hospitals during 1948 in New York City, Buffalo, Troy, Syracuse, Rochester, Schenectady, and Jamestown

Dr Hilleboe outlined a program to help meet the situation, calling for prompt installation of suitable storage space, adequate protection for all doors and windows leading to hospital pharmacies and drug stock rooms, and use at all times of all protective devices, keeping working stocks of narcotic drugs at a minimum, returning working drug stocks to protective storage when the drugs are not in active use, and guarding against overstocking at main supply points

"Too many hospitals regard drugs only in the light of their legal value a mistake shared by pharmacists and physicians," Dr Hilleboe said "They fail to realize that the underworld prices on morphine and cocaine are reportedly more than 100 times their legal value, that one ounce of cocaine for instance, for which they might pay $15, produces a phenomenally exaggerated price in illicit traffic of the drug"

State's Pay to Hospitals Rises

GOVERNOR Thomas E Dewey announced that beginning January 1 an increase in the maximum daily rate paid to hospitals for rehabilitation services for physically handicapped children has gone into effect The former rate of $6 25 a day to general hospitals is increased to $8 50, while the increase for convalescent hospitals is from $5 00 to $6 00 a day The State and localities each pay half

The total number of physically handicapped children who were hospitalized during 1947 was 5,600, and included spastics, paralytics, and amputees Health authorities expect the number to be increased to 6,500 for 1949

The present maximum daily rate has been in effect since July 1, 1947 The higher rates became necessary because of increased costs

Bernecker Appointed Administrator for N Y U -Bellevue Center

DR EDWARD M BERNECKER, who has resigned as New York City Commissioner of Hospitals, has been appointed administrator of hospital services at the New York University-Bellevue Medical Center, according to an announcement from Dr Harry Woodburn Chase, chancellor of N Y U

In his new position, Dr Bernecker will be responsible for the administration of University Hospital formerly the New York Post-Graduate Hospital which was transferred to the N Y U -Bellevue Center on December 1, 1948 He will also be responsible for the coordination of clinical programs for instruction at other hospitals associated with the Medical Center, and the administration of the University's Institute of Rehabilitation and clinics

Mr Edwin A. Salmon, director of the Medical Center, said that Dr Bernecker's knowledge of hospital construction would be of great assistance in executing the construction program scheduled to begin this spring in the four blocks north of Bellevue Hospital, between First Avenue and the Franklin D Roosevelt Drive

Postgraduate Program for Mather Memorial Hospital

ARRANGED by the Council Committee on Public Health and Education of the Medical Society of the State of New York, with the cooperation of the State Department of Health a program of postgraduate instruction will be held for the medical board of the Mather Memorial Hospital, Port Jefferson, on Thursday, February 24, at 11 30 A M

Dr Charles A R. Connor, instructor in medicine at the New York University College of Medicine, will speak on "Rheumatic Fever"

NEWS NOTES

The medical board of the White Plains Hospital, White Plains, for 1949 was appointed at the December meeting of the Board of Governors, with Dr Edwin G Ramsdell continuing as chief of staff Medical board members are Dr Ramsdell, director of surgery, Dr Edward W Weber, director of medicine, Dr J R. Montgomery, director of obstetrics, Dr J R. Whisenant, director of urology, and Dr R. W Moriarty, director of eye, ear, nose, and throat Appointed doctors at large were Dr D A MacDonald, Dr J W Ehrlich, Dr W M Sheridan, and Dr John Cannon.

Dr Spencer Myers was elected president of the medical staff of the Ossining Hospital, Ossining at the annual organization meeting December 29 Others elected were Dr M S Rudnick, vice-

president, and Dr Harold W Kipp, secretary-treasurer

Dr I. Herbert Scheffer, former medical superintendent of the Metropolitan Hospital, New York City, has been promoted to a position as general medical superintendent of the New York City Hospital Department, as of December 16, 1948

Dr Lloyd H Gaston assistant director of St Luke's Hospital, New York City since 1945, has been appointed director of the Hospital, effective January 1, succeeding Dr Claude W Munger, who retired July 1, 1948, because of ill health Since that time, Dr Gaston has been acting director

Dr Walter E Lawrence, former assistant to the superintendent of the Schenectady County Hospital for six years, has succeeded Dr Walter L Rathburn as superintendent of Newton Memorial Hospital in Cassadaga

Fifteen more private rooms will be available for St. Francis Hospital, Olean, with the construction of a $100,000 addition as a wing in the rear, Mother Mary Viator has announced. The rooms on the first floor, are now occupied by the Sisters of St Francis, who will be housed in the addition The bed capacity of the hospital now is 100

The appointment of Dr Leo M Davidoff as director of neurosurgery at Beth Israel Hospital, New York City, has been announced. Dr Davidoff is professor of clinical neurologic surgery at the College of Physicians and Surgeons, Columbia University

With Grover A. Whalen and other speakers citing its record of having cared for nearly one million patients, Beth-El Hospital, Brooklyn celebrated its twenty-fifth anniversary December 19 at the Waldorf-Astoria Hotel, New York City Mr Whalen, as chairman of the city's Golden Jubilee Committee, cited progress in medicine and surgery and outlined the growth of the city during the last half century In spite of the storm, 970 persons attended the Silver Jubilee Dinner

The Central Harlem Medical Society, New York City, composed of 180 Negro physicians, has voted indorsement of the interracial policy at Sydenham Hospital, New York City, and of the campaign to make up operating deficits, Dr Cyril H. Dolly, president of the society, announced.

At the regular meeting of the staff of Highland Hospital, Beacon, Dr C B Dugan was re-elected president of the medical staff

Dr Frank R Henne, formerly with the Marcy State Hospital, has been appointed assistant director of the Harlem Valley State Hospital, Wingdale Dr Louis Loeffler, Ogdensburg, has been appointed director of laboratories

Dr Eugene J Cohen spoke on "The Use of Androgens in Males and Females" and "A Review of Some of the Recent Advances in Thyroid Physiology and Therapy" on January 3 and January 10, respectively, at the Veterans Administration Hospital, Castle Point

Officers for 1949 were elected at the regular meeting of the medical staff of the E J Meyer Memorial Hospital, Buffalo They are Dr Donald R. McKay president, Dr George E Slotkin, vice-president, Dr Kenneth Goldstein, secretary, and Dr Ernest L Brodie, treasurer

Dr George W Wheeler, assistant director of the New York Hospital, has retired after thirty-six years of service He was guest of honor at a testimonial dinner given by the Board of Governors of the Hospital, and was elected an honorary life member of the Society of the New York Hospital.

NECROLOGY

[Continued from page 313]

the New York State and Westchester County Medical Societies and the American Medical Association.

Andrew John Taddeo, M D , died at his Bronx home on December 24 after a brief illness He was forty-eight years old. Dr Taddeo, a captain in the Army Medical Corps in World War II received his medical degree from New York University and Bellevue Medical College in 1929 and interned at St Mary's Hospital, Hoboken, New Jersey He was assistant attending physician a Morrisania Hospital.

MEDICAL NEWS

Columbia Coordinates Physical Medicine Program

COLUMBIA University, New York City, on January 1 embarked upon a new program of coordination and integration of the widespread physical medicine program which has been developed under impetus from a grant of $400,000 from Bernard Baruch through the Baruch Committee on Physical Medicine

President Dwight D Eisenhower announced that Dr Robert C Darling, associate professor of medicine at the College of Physicians and Surgeons and chairman of the physical fitness subcommittee of the Baruch Committee, will serve as coordinator of the program Dr Willard C Rappleye, dean of the Faculty of Medicine, explained that, as a result of the Baruch grant, the University's physical medicine facilities have become so diverse and numerous that the need has arisen for a coordinator

The new program will deal with the instructional and research activities in physical medicine at Columbia-Presbyterian Medical Center, the Institute for the Crippled and Disabled, which is affiliated with Columbia, the instructional program in physical and occupational therapy at the Medical Center and Teachers College, and training projects for both technical and medical personnel at the Medical Center as well as eight other hospitals in New York City

The physical therapy services at the Medical Center during the year ending December 31, 1947, administered 161,233 treatments, Dr Rappleye announced, and in occupational therapy, 30,719 treatments were given—a total of 191,952 treatments In the teaching phase, the University conducts three courses in physical medicine for physicians, in addition to classes in occupational and physical therapy

Accidents to Workers Increase in 1948

THE number of accidents to workers reported last year by employers in this State reached a high record of 818,694, the New York State Workmen's Compensation Board said recently

Miss Mary Donlon, board chairman, said that the increase of 4 per cent over the number of accidents reported in 1947 was because of high employment, improved reporting methods of employers, and the expansion of workmen's compensation coverage to new groups, such as domestic workers and volunteer firemen The accident rate is "leveling off," Miss Donlon said.

The increase in the number of accidents was sharpest in the New York metropolitan area, including, in addition to the city, the counties of Westchester, Nassau, Suffolk, and Rockland The metropolitan district reported 468,359 accidents last year, an increase of 6 per cent over 1947

The Buffalo and Albany districts showed increases in the number of accidents over 1947, while the Rochester and Syracuse districts reported a decline in accidents

The Binghamton office, opened last March 1, reported 16,295 accidents for ten months of 1948 During the first two months last year, as in previous years, the industrial accidents from counties in that part of the State had been reported to other upstate offices

The accident figures for each of the six district offices of the Workmen's Compensation Board, for 1948 and 1947, follow

District Office	1948	1947
New York City	468,359	441,159
Albany	84,808	81,233
Binghamton	16,295	
Buffalo	113,042	107,512
Rochester	55,200	55,822
Syracuse	80,990	101,519

"While continued emphasis on safety and accident avoidance are reflected in a leveling off of reported accidents relative to the number of workers employed in compensable employments," said Miss Donlon, "the plain truth is that carelessness is still causing too many avoidable accidents Even though many of the 818,694 accidents were minor, there was some medical care given and some discomfort suffered even when little or no work time was lost"

Declaring that analysis of several hundred thousand cases showed that the "human factor" was the cause of more accidents than machine failures or defects, Miss Donlon said "Here is the opportunity for management and labor to cooperate with obvious benefits to all. The only good accident is the one that never happens"

National Cancer Institute Grants Announced

GRANTS totaling $508,527, to aid laboratory and clinical cancer research, have been announced from the National Cancer Institute through the Federal Security Administration.

In New York State, grants received include Albany Medical College, $3,888, and University of Rochester, $1,230 In New York City, the grants are Fordham University, $9,800, Columbia University, College of Physicians and Surgeons, $7,560, Memorial Hospital, $98,508, Barnard College, $1,800, and Mount Sinai Hospital, $16,200

Medical Center Receives Eight-Million Dollar Grant

THE New York University-Bellevue Medical Center has received a gift "in excess of $8,000,000" from the Samuel H Kress Foundation, it was announced on January 10 The terms of the grant stipulate that it will be devoted to the development at the Center of a program of postgraduate medical education which will be national and world-wide in scope, and which will require a decade to work out on a constructive basis

Of the total grant by the Kress Foundation to the Medical Center, approximately $4,000,000 will be made available as capital funds for construction of postgraduate facilities in the new buildings A second $4,000,000 from the Kress grant will be earmarked as support for a program of postgraduate medical teaching by outstanding physicians and surgeons

The new Post-Graduate Medical School, which now has the support of the Samuel H Kress Foundation, has its own faculty and dean, with an analytical program for a model organization and administrative responsibility It will function in association with the University's hundred-year-old College of Medicine, which will continue to specialize in the training of medical students for their M D degrees In addition to the two medical schools, the Medical Center has in operation its Institute of Rehabilitation, an Institute of Industrial Medicine, the University Clinic, and the University Hospital (formerly Post-Graduate Hospital)

MEDICALLY SPEAKING—

American Board of Obstetrics and Gynecology—The next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 4, 1949

Arrangements will be made so far as is possible for candidates to take the Part I examination (written paper and submission of case records) at places convenient for them Candidates who successfully complete the Part I examination proceed automatically to the Part II examination to be held May 8 to 14, inclusive, 1949, at the Hotel Shoreland, Chicago, Illinois Notice of the exact time and place of the Part I and Part II examinations will be sent all candidates well in advance of the examination date Closing date for reapplications for admission to the Part II examinations will be April 1, 1949

New bulletins are now available for distribution upon application and give details of all changes in Board requirements and regulations made at the annual meeting of the Board held in Washington, D C, May 16 to May 22, 1948 These relate both to candidates and to hospitals conducting residency services for training

Application forms and bulletins are sent upon request made to American Board of Obstetrics and Gynecology, Inc., 1015 Highland Building, Pittsburgh 6, Pennsylvania.

Leaves Funds for Research—Ernest L Woodward former head of the Jell-O Company, who died last year, left $2,198,571 54 to the University of Rochester for medical research He also left $250,000 to the Genesee Memorial Hospital in Batavia, and $50,000 to St Mark's Episcopal Church in Le Roy, his home

Postgraduate Course on Diabetes—The Frank E Bunts Educational Institute and Cleveland Clinic will present a continuation course for physicians entirely devoted to the diagnosis and management of diabetes and its complications, to be held on March 17 18, and 19 Dr Henry T Ricketts of Chicago, Dr John S L Browne of Montreal, and Dr H L C Wilkerson of the United States Public Health Service will be guest speakers Dr E Perry McCullagh is director of the course

Inquiries regarding the complete program and registration may be addressed to the Director of Education, Frank E Bunts Educational Institute, 2020 East Ninety-third Street, Cleveland 6, Ohio

Fellowships in Exfoliative Cytology—The American Cancer Society announces that fellowships are available for advanced training in diagnostic technic in exfoliative cytology for qualified pathologists Six of these are at the Cornell University Medical College, under the direction of Dr George N Papanicolaou, and one at the New York University Hospital, under Dr Locke L MacKenzie Applications should be made directly to the institutions where the fellowships are available

Surgery Course to Be Offered—A postgraduate course in orthopedic surgery will be offered by the Hospital for Joint Diseases, 1919 Madison Avenue, New York City, in affiliation with the College of Physicians and Surgeons, Columbia University The course will comprise eleven morning and eleven afternoon sessions on consecutive Thursdays, beginning March 3, held at the Hospital Physicians may apply for registration at the office of the Assistant Dean, Graduate Medicine, College of Physicians and Surgeons

National Heart Campaign Set—National Heart Week in 1949 has been designated as the week of February 14 to 21, a period of intensified public education and fund raising within the national campaign of the American Heart Association, February 7 to 28

Propose Law for Rh Factor—A bill to require the testing of blood of expectant mothers for the Rh factor is to be introduced into the 1949 State Legislature, according to State Senator Thomas C Desmond. Purpose of the bill, according to Senator Desmond, is to help avert the tragedies of stillbirths, deaths in infancy, and births of subnormal children, due to antagonistic Rh blood factors in the parents

MEETINGS

PAST

New York Council of Surgeons

Dr Anthony J Della Rocca, assistant surgeon at the Manhattan Eye, Ear and Throat Hospital and instructor in ophthalmology at the New York Polyclinic Medical School and Hospital, spoke on "Management of the Acute Congestive Eye" at a meeting sponsored by the New York Council of Surgeons, January 4 at the Parkchester General Hospital, New York.

Society of Medical Jurisprudence

At the meeting of the Society of Medical Jurisprudence held January 10 in New York City, Dr Harrison J Martland, professor of forensic medicine at the New York University-Bellevue Medical Center, spoke on "The Danger of Increasing the Normal Radioactivity of the Human Body," and Mr Edward Holloway gave the presidential address on "Medicine and the Law"

Saranac Lake Medical Society

Dr Gavin Miller, professor of surgery at McGill University, Montreal, spoke on "Recent Advances in Surgery of the Gastrointestinal Tract" at the meeting of the Saranac Lake Medical Society held January 12

Cancer Teaching Day

A cancer teaching day was held January 19 at the Hermann M Biggs Memorial Hospital, Ithaca, under the auspices of the Tompkins County Medical Society, the State Medical Society, the Tompkins County Department of Health, and the Bureau of Cancer Control of the State Department of Health.

Speakers and their topics included Dr Norman Treves, instructor in surgery, Cornell University Medical College, "Cancer of the Breast", Dr John S LaDue, assistant professor of clinical medicine, Cornell University Medical College, "Operative Risk and Pre- and Postoperative Care of Patients with Cancer", Dr Clyde L Randall, professor of gynecology, University of Buffalo School of Medicine, "Significance and Management of Abnormal Vaginal Bleeding," and Dr Albert F R Andresen, professor of clinical medicine, Long Island College of Medicine, "Gastrointestinal Cancer"

PERSONALITIES

Honored

Dr James M Cronk, Hyde Park, at a testimonial dinner held on December 15, marking his completion of fifty years of the practice of medicine in the Hyde Park area, where he established his practice in October, 1898 Dr Wilbur A Sawyer, first director of health for the United Nations Relief and Rehabilitation Administration, who received the 1948 Richard P Strong Medal for distinguished service in tropical medicine, at the annual dinner of the American Foundation for Tropical Medicine, January 13 in New York City

Awarded

One of the first two fellowships in clinical cancer research under the Damon Runyon Memorial Fund, to Dr Genevieve Mary Bader, New York City, clinical assistant at the Strang Cancer Prevention Clinic Dr Irving Rappaport, instructor at the Long Island College of Medicine, a fellowship for medical research at the College, from the Benson Memorial Fund Dr Harold Wiggers, Albany Medical College, a $2,700 grant from the American Foundation for High Blood Pressure for research in high blood pressure and hardening of the arteries

Appointed

Dr Henry S Di Stefano, Syracuse, as instructor in the department of anatomy Syracuse University College of Medicine Dr Merwin E Marshland Mamaroneck, to the Westchester County Board of Health Dr D Frank Milam, formerly with the International Health Division of the Rockefeller Foundation, as national director of the Planned Parenthood Federation Dr George M Wheatley, as third vice-president of the Metropolitan Life Insurance Company, to supervise the company's health and welfare activities

Elected

Dr George Baehr, retiring president of the New York Academy of Medicine, as chairman of the board of directors of the Health Insurance Plan of Greater New York Dr Rustin McIntosh, director of the pediatric service, Presbyterian Hospital, as 1949 chairman of the American Council on Rheumatic Fever of the American Heart Association Dr McIntosh is also Carpenter Professor of Pediatrics at the College of Physicians and Surgeons, Columbia University

Speakers

Dr I D Bobrowitz, medical superintendent of the New York City Municipal Sanatorium, Otisville, on "The Prognosis and Treatment of Minimal Tuberculosis" at a meeting of the Society of the New York Medical College on December 21 Dr John J Levbarg, New York City, on "The Use of Hypnosis in Dentistry" at a meeting of the Tenth District Dental Society January 26 in Hempstead Dr Joseph Earl Moore, Johns Hopkins Hospital, Baltimore, on "Office Management of the Patient with Syphilis" at the weekly seminar on venereal disease control February 19 at 10 30 A M at the New York City Department of Health, 125 Worth Street, Manhattan Dr Howard A Rusk, chairman of the department of rehabilitation and physical medicine at the New York University College of Medicine, on a program of rehabilitation for the victim of multiple sclerosis, at the annual conference of the Association for Research in Nervous and Mental Diseases, December 11 in New York City

New Offices

Dr Fisk Brooks, formerly in Delhi, general practice in Oneonta Dr Donald F Harrington, World War II Navy veteran, general practice in Seaford

COUNTY NEWS

Bronx County

The importance of increased cooperation between the medical profession and United Medical Service, the Doctor's Plan, was discussed at the regular monthly meeting of the Physician's Group of Bronx County, held December 14 at the Concourse Plaza Hotel. A talk on the health needs of the community was given by State Senator Arthur Wachtel. Other speakers were Dr Frederick E Elliott, Mr John McCormack, and Mr Alfred L Golden, vice-presidents of U M S

Broome County

A panel of doctors that can be called in an emergency at any time of day or night has been set up by the Broome County Medical Society for persons whose own doctors are unavailable when an emergency arises

A special committee on Problems of Alcoholism has been appointed from the Broome County Medical Society, as follows Dr Herman M Hurdum, chairman, Dr Harry L. Fulton, Dr Charles A Mossew, Dr Karl D Rundell, Dr John D Tocco, and Dr J C Zillhardt

Chemung County

Dr M F Butler was elected president of the Chemung County Medical Society at the annual meeting held December 15 in Elmira Other officers chosen are Dr A. H. Hillman, vice-president Dr J A. Mark, treasurer, and Dr J J McConnell, secretary

Clinton County

Dr Howard T Behrman, assistant clinical professor of dermatology and syphilology, New York University College of Medicine, will speak on "Modern Treatment of Skin Diseases" at the meeting of the Clinton County Medical Society to be held Thursday, March 17, at 8 30 P M. at the Champlain Valley Nurses' Home, Plattsburg The program is postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health

The December and January meetings of the Clinton County Medical Society also included postgraduate instruction programs On December 14, Dr Paul A. Bunn, associate professor of medicine at the Syracuse University College of Medicine, spoke on "Problems in Physical Diagnosis," and on January 20, Dr A. Wilbur Duryee, chief of the peripheral vascular clinic at the New York Post-Graduate Hospital, spoke on "Management of Peripheral Vascular Diseases"

Dutchess County

At the January 12 meeting of the Dutchess County Medical Society, held at the Hudson River State Hospital, Poughkeepsie, Dr C Stuart Welch, professor of surgery at Tufts Medical College, spoke on "Surgery of the Biliary Tract"

Erie County

Officers for 1949 were installed at the meeting of the Erie County Medical Society held January 25, and Dr Roy L Scott, new president, gave his inaugural address Other officers are Dr Stephen A. Graczyk, first vice-president Dr Elmer T McGroder, second vice-president Dr Mary J Kazmierczak, secretary, and Dr Walter Scott Walls, treasurer

Franklin County

New officers were elected at the annual meeting of the Franklin County Medical Society, held December 8 at Saranac Lake Dr Carter Morse, Tupper Lake, is president, succeeding Dr Alfred A. Hartmann Other officers are Dr Warriner Woodruff, Saranac Lake, vice-president, and Dr Daisy H Van Dyke, Malone, secretary-treasurer

Fulton County

"Operative Deliveries The Occipitoposterior Position" was the topic of a program of postgraduate instruction presented by Dr Raymond J Pieri, professor of clinical obstetrics at the Syracuse University College of Medicine, at the meeting of the Fulton County Medical Society held January 20 in Johnstown The program was arranged by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health

Kings County

A scientific program on "Atomic Fission Injuries" was presented at the meeting of the Kings County Medical Society, held December 21 in Brooklyn Speakers and their topics included Dr James C Barnett, department of radiology, Long Island College Hospital, "The Injuring Force", Dr Phillip E Lear, assistant professor of clinical surgery, Long Island College of Medicine, "Somatic Injuries", Dr Joseph DiPalma, assistant professor of medicine, Long Island College of Medicine, "Genetic Injuries," and Dr Howard W Brondum, fellow in radiology Long Island College Hospital, "Protection Against Injury"

Livingston County

Dr Kenneth Diehl of Rochester spoke at the annual meeting of the Livingston County Medical Society on December 16 His topic was "Oral Endoscopy"

Nassau County

Dr Arthur D Jaques, Lynbrook, and Dr Louis H Bauer, Rockville Center, were guests of honor at the annual dinner-dance of the Nassau County Medical Society, held December 11 in Garden City Dr Jaques was named by the Medical Society of the State of New York as its nominee for the American Medical Association's award as "General Practitioner of 1948," and Dr Bauer was recently named secretary-general of the World Medical Society

Niagara County

Dr Walter Walls, University of Buffalo School of Medicine, spoke on "Present Day Treatment of Burns" at the meeting of the Niagara County Medical Society held January 11 in Lockport

Onondaga County

As a program of postgraduate instruction, Dr Marcy L Sussman, clinical professor of radiology at the Columbia University College of Physicians and Surgeons, spoke on "Recent Radiologic Contributions to the Study of Heart Disease" at the meeting of the Onondaga County Medical Society, on February 1 in Syracuse The instruction was arranged by

the Council Committee on Public Health and Education of the State Medical Society, with the cooperation of the State Department of Health.

Queens County

At the annual meeting of the Queens County Medical Society, held November 30, Dr Arthur A. Fischl of Astoria succeeded Dr Alfred Angrist, Jamaica, as president Officers chosen included Dr Ezra A Wolff, Forest Hills, president-elect Dr William Benenson, Flushing, secretary, Dr Ernani D'Angelo, Jamaica, assistant secretary, Dr Carl Krenz, Flushing, treasurer, and Dr John Lowry, assistant treasurer

Rensselaer County

At the annual meeting of the Rensselaer County Medical Society, held December 15 in Troy, officers were elected, and a talk was given by Mr E R. Schooley, New York City, insurance manager of the Pinkerton Detective Agency

Richmond County

Dr Louis H Bauer, past-president of the Medical Society of the State of New York and secretary of the World Medical Society, will speak on "Socialized Medicine" at the joint meeting of the Richmond County Medical Society and its Woman's Auxiliary, to be held Wednesday, March 9, at the Atlantic Inn, Staten Island The program, which is postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health, will begin at 9 00 P M

Rockland County

Dr John J Rooney, Jr , Nyack, was elected president of the Rockland County Medical Society at the annual meeting held December 1 at the Summit Park Sanatorium Other officers chosen are Dr A J Maged, Suffern, vice-president, Dr Marjorie R. Hopper, Nyack, treasurer, and Dr Robert L Yeager, Pomona, secretary

St Lawrence County

Officers elected to head the St Lawrence County Medical Society for this year are Dr R V Persson, Newton Falls, president, Dr A D Burr, Gouverneur, vice-president, Dr W R Carson, Potsdam, secretary, and Dr L T McNulty, Potsdam, treasurer

Schenectady County

Dr Stuart MacMillan was elected president of the Schenectady County Medical Society at the annual dinner and election held December 9 in Schenectady Dr William Mallia was elected vice-president, Dr Ralph E Isabella, secretary, and Dr Harry Miller, treasurer At the meeting the guest speaker was Mr Scott Dickson of the General Electric Company, whose topic was "Feats of Magic."

At the January 4 meeting, Dr Evan W Thomas, director of the rapid treatment center, New York University-Bellevue Hospital, spoke on "The Treatment of Syphilis with Penicillin"

Suffolk County

Dr Gaylord W Graves, clinical professor of pediatrics, New York University College of Medicine, spoke on "Problems of Practice in the First Year of Life" at the meeting of the Suffolk County Medical Society, held January 26 in Patchogue The program was postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Medical Society, with the cooperation of the State Department of Health

Wayne County

At the annual meeting of the Wayne County Medical Society, held December 14, in Lyons, election of officers was held, and annual reports were given The guest speaker was Dr James Quinlivan, assistant director of local health services of the State Department of Health, whose topic was "What an Independent County Health Department Has to Offer"

Westchester County

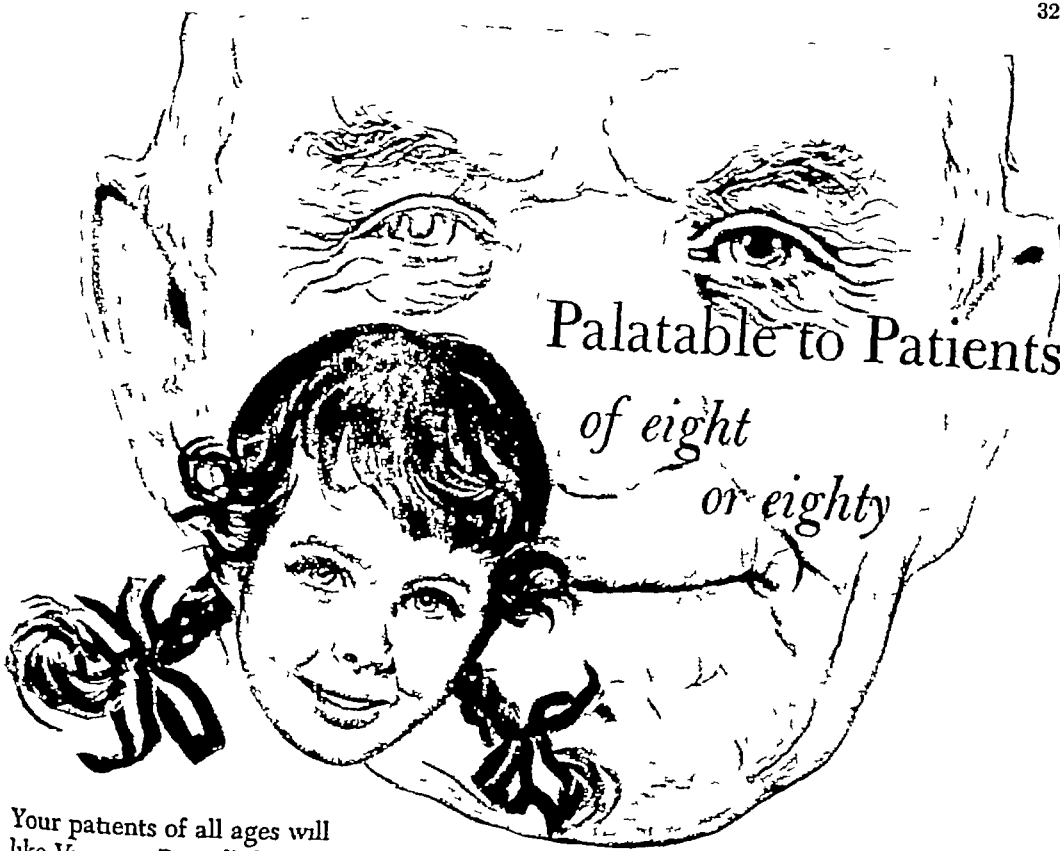
Reorganization of the board of directors of the Westchester County Laboratory, with expansion to nine members, was recommended to the supervisors by County Executive Herbert C Gerlach Serving on the laboratory board are Dr Edwin G Ramsdell, White Plains, Dr William A. Holla, county health commissioner, both ex-officio members, Dr G C Adie, New Rochelle Dr Christopher Wood, White Plains, Dr Margaret Loder, Rye, Dr Reid R. Heffner, New Rochelle, Dr E L Harmon, Grasslands Hospital medical director, Dr M D Touart, Bronxville, and Dr Lester R. Stewart, Scarsdale

Officers of the Westchester County Medical Society for this year, elected at the annual meeting held November 16 in White Plains, are Dr Waring Willis, Bronxville, president, Dr Christopher Wood, White Plains, president-elect, Dr Henry E McGarvey, Bronxville, vice-president, Dr Margaret M. Loder, Port Chester, secretary, and Dr David Fertig, Hartsdale, treasurer

At the meeting of the Westchester Division, Podiatry Society of New York, held November 23 in White Plains, the program presented included a symposium on "Arthritis of the Lower Extremities" Speakers were Dr M S Rednick, Ossining, and Dr Emanuel Frankel, Richmond Hill

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Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo



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Riboflavin (Vitamin B_2)	4 mg
Niacinamide	100 mg
Liver extract derived from 20 Gm. of fresh liver	
Folic Acid	2 mg

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the Council Committee on Public Health and Education of the State Medical Society, with the cooperation of the State Department of Health

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At the meeting of the Westchester Division, Podiatry Society of New York, held November 23 in White Plains, the program presented included a symposium on "Arthritis of the Lower Extremities" Speakers were Dr M S Rednick, Ossining, and Dr Emanuel Frankel, Richmond Hill.

Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo



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BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

RECEIVED

Gynaecological and Obstetrical Anatomy By C F V Smout, M D With Chapters on the Histology of the Female Reproductive Tract and Its Endocrine Control by F Jacoby, M D Second edition Octavo of 248 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $11

General Endocrinology By C Donnell Turner, Ph D Octavo of 604 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $6 75

A Course in Practical Therapeutics By Martin Emil Rehfuss, M D , F Kenneth Albrecht, M D , and Alison Howe Price, M D Quarto of 824 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $15

Correlative Neuroanatomy By Joseph J McDonald, M D , Joseph G Chusid, M D , and Jack Lange, M D Fourth edition revised Octavo of 156 pages, illustrated Palo Alto, California, University Medical Publishers, 1947 Paper, $3 00

How Laymen Cut Medical Costs Octavo of 38 pages, illustrated Chicago, Public Health Institute, 1948

Listen, Little Man! A Document from the Archives of the Orgone Institute By Wilhelm Reich Translated by Theodore P Wolfe Illustrated by William Steig Octavo of 126 pages, illustrated New York, Orgone Institute Press, 1948 Cloth, $3 00

Practice of Allergy By Warren T Vaughan, M D Revised by J Harvey Black, M D Second edition Quarto of 1,132 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $15

Principles Governing Eye Operating Room Procedures By Emma L Clevenger, R N Octavo of 215 pages, illustrated St Louis, C V Mosby Co 1948 Cloth, $5 50

Standard Radiographic Positions By Nancy Davies and Ursel Isenburg Second edition Octavo of 223 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

Venous Thrombosis and Pulmonary Embolism. By Harold Neuhof, M D Octavo of 169 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $4 50 (Mt Sinai Hospital Monograph No 2)

A Way to Natural Childbirth A Manual for Physiotherapists and Parents-to-Be By Helen Heardman Duodecimo of 124 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $2 50

The Principles and Practice of Modern Cosmetics. *Vol II. Cosmetic Materials. Their Origin, Characteristics, Uses and Dermatological Action* By Ralph G Harry Octavo of 479 pages, illustrated London, Leonard Hill, 1948 Cloth, 35/

Eskimo Doctor By Aage Gilberg, M D , Translated by Karin Elliott Octavo of 229 pages, illustrated New York, W W Norton & Co , 1948 Cloth, $3 00

Racial Variations in Immunity to Syphilis. A Study of the Disease in the Chinese, White, and Negro Races By Chester North Frazier, M D , and Li Hung-Chiung, M D Octavo of 122 pages, illustrated. Chicago, University of Chicago Press 1948 Cloth, $2 50

Diseases of the Ear, Nose and Throat. By William Wallace Morrison, M D Octavo of 772 pages, illustrated New York, Appleton-Century-Crofts, 1948

REVIEWED

Tomorrow's Food. The Coming Revolution in Nutrition. By James Rorty and N Philip Norman, M D Large duodecimo of 258 pages New York, Prentice-Hall, 1947 Cloth, $3 50

This is a book for the layman It is of little clinical value to the practicing physician, as the material is of general interest and compiled mostly from government sources

There is too much emphasis placed on the quest for profit by food processing industries, the Council of Foods of the A M A comes in for some harsh remarks These remarks are unjustified The reviewer refers the authors to the last paragraph on page 244 of this book, relating to *Nutrition Reviews* "This monthly digest of nutritional literature can be read with profit by both food scientists and laymen Ably and objectively edited, it has already contributed substantially to nutrition progress as well as to the prestige and public acceptance of the aims and purpose of its sponsor the Nutrition Foundation "

The sponsors of the Nutrition Foundation are the food industry Their personnel in this foundation are well-known nutrition scientists who have enjoyed the confidence of the Council on Foods of the A M A and the National Research Council

M Ant

Jaundice Its Pathogenesis and Differential Diagnosis By Eli Rodin Movitt, M D Octavo of 261 pages, illustrated New York, Oxford University Press, 1947 Cloth, $6 50

This is a modern and up-to-date exposition of the subject which encompasses an abundant collection of useful information on this intriguing phenomenon Although such important topics as erythroblastosis and the Rh factors are not discussed, much practical knowledge is made available for the practicing physician, specialist or general practitioner, in dealing with this vexing problem in patients The colored plates, tables, illustrations, and prolific references are carefully selected and presented

Max Lederer

[Continued on page 3-4]

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Major General Raymond W Bliss, surgeon general of the Army, has announced an intensive study of some 400 autopsy and surgical specimens of malignant melanoma. Having collected this material over a number of years, the Army Institute of Pathology is now preparing thousands of slides for an exhaustive study that may continue five or six years Pathologists and dermatologists of the Army Medical Department hope that findings will bring a complete histologic understanding of the disease, its manner of growth, and criteria for recognition of malignant melanoma in an early stage before it has become fatal

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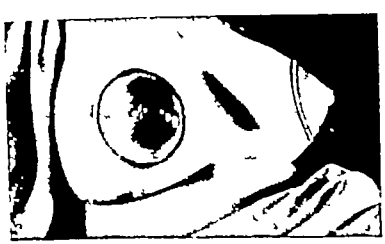
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Page 335

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Bibliography on use of breast shields
1 Abramson M Breast Feeding the Newborn Gen. Practice Clinics, (Oct.) 1947, p 318
2 Mckenzie, C H The Use of Plastic Nipple Shields for the Lactating Breast, Journal-Lancet, 68.199 (May) 1948
3 Hoffert F Simplified Breast Care, The Amer J Nurs. 48 372 373 (June) 1948.
4. Thomas, E. C. The Prevention of Mastitis the nursing problem Edinburgh M J 54 456-441 1947
5 DeLee J B Principles and Practice of Obstetrics, W B Saunders Co., Phila., 1938.

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[Continued from page 322]

Poisons Their Isolation and Identification By Frank Bamford, B Sc Second edition Revised by C P Stewart, M Sc Octavo of 304 pages, illustrated Philadelphia, Blakiston Co, 1947 Cloth, $5 00

This book will be useful to the forensic chemist in its discussion of the methods of various analyses for the identification of the usual poisons met with in medicolegal work The methods described have been found reliable through personal experience of the author

Since volatile and metallic poisons as well as fur dyes are also included, the book should also be of value to the industrial hygiene chemist A brief description of the pharmacologic action of numerous poisons is included, particularly of the alkaloids

NATHAN MILLMAN

Gynaecological Endocrinology For the Practitioner By P M F Bishop, D M (Oxon) Duodecimo of 124 pages, illustrated Baltimore, Williams & Wilkins Co, 1946 Cloth, $2 00

In this small volume, dealing with the endocrine aspects of gynecology, the author attempts to explain some of the fundamentals and clinical applications in both the male and female, avoiding the speculative and controversial

Although aware of the difficulties in the appraisal of the many hormonal preparations recommended to the general practitioner in the field of gynecology, the reviewer commends the author for his conservatism in his recommendations for treatment Too many glandular products have been empirically given for the cure of endocrine or so-called endocrine imbalance without controlled observations to evaluate their efficacy

This volume can be recommended as a compendium to gynecologic endocrinology for the general practitioner

SAMUEL L SIEGLER

The Treatment of Diabetes Mellitus By Elliott P Joslin, M D, Howard F Root, M D, Priscilla White, M D, Alexander Marble, M D, and C Cabell Bailey, M D Eighth edition Philadelphia, Lea & Febiger, 1946 Cloth, $10

The title of this book has always remained *The Treatment of Diabetes Mellitus* Everything of any interest related to diabetes mellitus is described completely and accurately, in a well-organized manner The volume has become a veritable Bible on diabetes

The new edition is revised with elaborate thoroughness The sections on alloxan diabetes, degenerative complications, insulin modifications, pregnancy, and related endocrine disorders are revised from a particularly modern point of view

The experience of Dr Joslin and his associates is spread over forty-eight years and covers about 29,000 diabetic patients

SAMUEL G SLO-BODKIN

An Introduction to Biochemistry By William Robert Fearon, M B Third edition Octavo of 569 pages, illustrated New York, Grune & Stratton, 1947 Cloth, $6 00

This work covers briefly the inorganic and biologic elements in the body, the major part of the book being devoted to descriptions of the chemistry and structure of the carbohydrates, proteins, amino acids, lipids, and steroids

The physiology of excretion, body fluids and blood is discussed The author gives a brief outline of the hormones This book is highly recommended

MORRIS ANT

Cornell Conferences on Therapy Volume 2 Editorial Board, Harry Gold, M D, Managing Editor Duodecimo of 354 pages, illustrated New York, Macmillan Co, 1947 Cloth, $3 75

The second volume in the series of *Cornell Conferences on Therapy* continues to be interesting and informative Many aspects of treatment are brought up to date in a most entertaining fashion

The first chapter on the use of placebos in therapy should be read by everyone The chapters on the treatment of edema are the best available summaries for the general practitioner

The volume is attractively printed and priced and can be highly recommended

MILTON PLOTZ

Histopathologic Technic By R D Lillie, M D Octavo of 300 pages Philadelphia, Blakiston Co, 1948 Cloth, $4 75

This volume contains many new technics in both staining and preparation of slides Although there are no illustrations, the reading is simple and the material concise

NATHAN REIBSTEIN

A Textbook of Medicine Edited by Russell L Cecil, M D, with the assistance of Walsh McDermott, M D Associate Editor for Diseases of the Nervous System, Harold G Wolff, M D Seventh edition Quarto of 1,730 pages, illustrated Philadelphia, W B Saunders Co, 1947 $12

This seventh edition is indeed a monumental work It contains 1,730 pages, 16 entirely new articles, and new treatises on 54 subjects previously covered As one looks over the list of contributors, their names and qualifications, one is impressed with the number of men whose names are among the leaders of American medicine One is also impressed with the authoritativeness of their contribution

The student must indeed have a "mens sana in corpore sano" to be able to carry the book around It weighs six pounds, ten ounces It is a book that must be anchored in the student's room

Since there are 136 specialists, no subject has been neglected nor stingily treated But since it also serves the general practitioner, that tendency is justifiable This work is now the outstanding textbook of medicine

S R BLATTEIS

Osteotomy of the Long Bones. By Henry Milch, M D Octavo of 294 pages, illustrated Springfield, Ill, Charles C Thomas, 1947 Cloth, $6 75

This monograph brings under one cover a series of articles published by the author over a period of fifteen years

A relatively simple procedure technically, the surgical importance of osteotomy and its biomechanical implications are thoroughly and ingeniously demonstrated The mathematical discussions under the chapter on angulational osteotomy are understandably somewhat burdensome, but their practical application to osteoarthritis, fracture of the femoral neck, and tuberculosis of the hip, as well as to congenital and developmental defects of the hip, disclosures interesting contraindications and explains the reason for failure in poorly planned operations

Practitioners of bone surgery will find it an interesting and valuable contribution

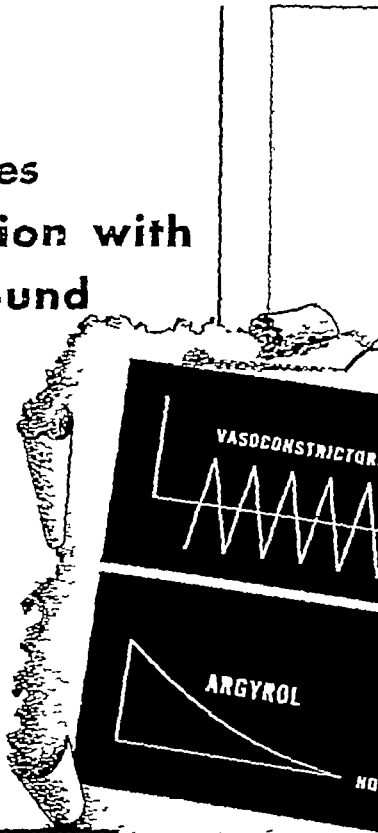
MAX S RABINOWITZ

[Continued on page 328]

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[Continued from page 324]

Communicable Disease Control. By Gaylord W Anderson, M D, and Margaret G Arnstein, R N Second edition Octavo of 450 pages, illustrated New York, Macmillan Co, 1948 Cloth, $5 00

Written for the student of public health, this book is a clear concise résumé of the principles of disease control as applied to some twenty-five communicable diseases or groups of diseases

During the seven years that have passed since the first edition, many changes have occurred in the regulation, prophylaxis, and treatment of these diseases

An informal style makes the book such pleasant and easy reading that every practitioner will enjoy it and will gain much practical, valuable knowledge from its perusal KENNETH G JENNINGS

400 Years of a Doctor's Life Collected and Arranged by George Rosen, M D, and Beate Caspari-Rosen, M D Octavo of 429 pages New York, Henry Schuman, 1947 Cloth, $5 00

Here is a collection of passages, mostly autobiographic, illuminating the lives of many doctors of the past four centuries The selections are grouped in various sections showing the doctor as youth, student, practitioner, teacher, lover, patient, soldier, writer, etc There is not a dull page in the collection and one will read with the greatest interest about Theophrastus in the sixteenth century and about Seagrave, Heiser, and many others of the present day One could only wish that some of the selections had been longer, but readers will certainly be moved to go to the original sources themselves MILTON PLOTZ

The Oculorotary Muscles. By Richard G Scobee, M D Octavo of 359 pages, illustrated St Louis, C V Mosby Co, 1947 Cloth, $8 00

As the author states in his preface, this book is the outgrowth of a series of lectures given to graduate students in ophthalmology, hence its appeal will be to them and to ophthalmologists of all ranks rather than to the undergraduate student or to the general practitioner Though it is true that a thorough understanding of the oculorotary muscles, of their anatomy, and especially of their physiology, renders fairly simple the diagnosis of their defects and deviations, yet the subject must be considered a really complex one, and any contribution which adds to its understanding and simplification is welcome To the reviewer this book appears to be definitely such a contribution

It is clearly printed on excellent quality paper, is adequately though not profusely illustrated Any reader will find his understanding of the oculorotary muscles increased to a marked degree by this volume, which, therefore, is recommended to the ophthalmologist and graduate student in ophthalmology E CLIFFORD PLACE

The Diagnosis and Treatment of Diarrheal Diseases By William Z Fradkin, M D New York, Grune & Stratton, 1947 Cloth, $6 00

This book summarizes the common and rarer causes of chronic diarrhea. It is most helpful in its insistence upon simple yet adequate diagnostic procedures before the cause has been masked by treatment It is, however, not without its faults and may confuse the general practitioner There is no objective summary of the relative frequency of the common chronic diarrheas of civil practice The presentation entitled "Glandular Diarrheas" is especially vulnerable and controversial Despite these faults, however, the book is valuable for its exposition of methods of diagnosis available to all medical practitioners ALFRED R LENZNER

Rheumatism and Soft Tissue Injuries By James Cyriax, M D Octavo of 410 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $9 50

This book by James Cyriax, physician in charge of the physiotherapy department of St Thomas' Hospital, London, is a controversial volume, particularly with reference to referred pain in segmental areas It has numerous plates, supernumerary

The reviewer would say it is a good book for the physician in physical medicine to read, to evaluate, before pronouncing it a good book for the medical profession or the technical physiotherapist JOHN J HAUFF

Diseases of the Nervous System. Described for Practitioners and Students By F M R Walshe, M D Fifth edition Octavo of 351 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $4 50

In reading this book one is most favorably impressed with its orderliness, method of presentation, and the thoroughness with which the author covers the subject It is simple yet complete, contains basic concepts and the most accepted views regarding etiology, pathology, and modern forms of treatment of the different neurologic disorders Its very simplicity, yet thoroughness, makes it a useful text for students The last edition contains numerous figures and illustrations which greatly enhance the usefulness of the book IRVING J SANDS

Public Health Law By James A Tobey, Dr P H Third edition Octavo of 419 pages New York, Commonwealth Fund, 1947 Cloth, $4 50

Tobey brings this standard work up to date in a third edition His knowledge of both public health and law qualifies the author in this subject This book is intended primarily for public health teachers and administrators, as well as for lawyers A E SHIPLEY

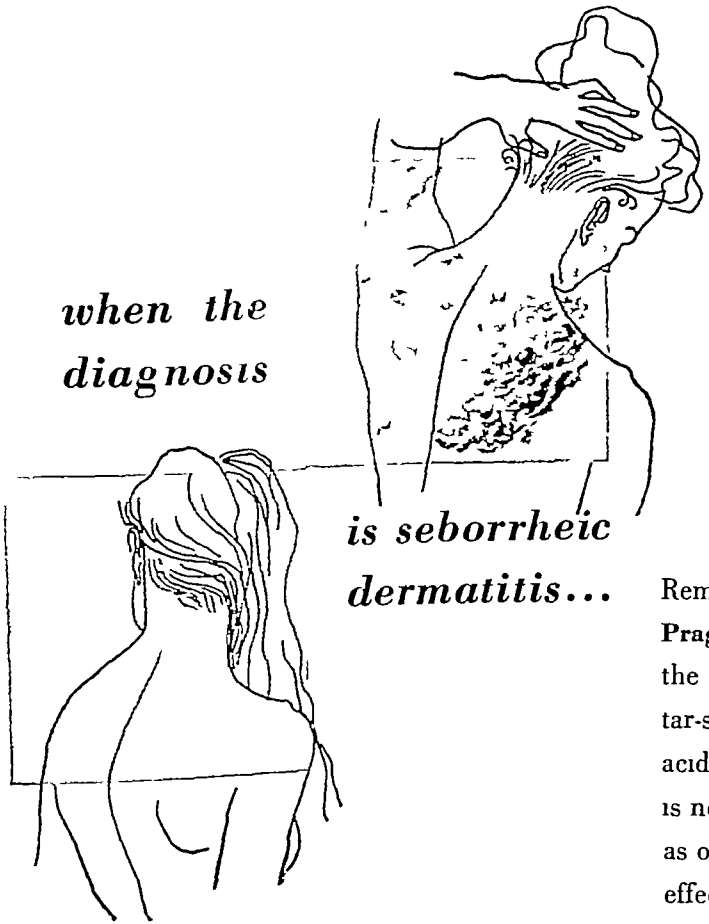
Psychiatric Research. Papers Read at the Dedication of the Laboratory for Biochemical Research, McLean Hospital, Waverley, Massachusetts, May 17, 1946 By Cecil K Drinker, M D, Jordi Folch, M D, Stanley Cobb, M D, *et al* Octavo of 113 pages, illustrated Cambridge, Harvard University Press, 1947 Cloth, $2 00 (Harvard University Monographs in Medicine and Public Health)

This small book is a compilation of six addresses delivered on the occasion of the dedication of a laboratory for biochemical research in psychiatry at the McLean Hospital, Waverley, Massachusetts

The keynote of these papers, written by eminent authorities in the domain of neuropsychiatry, stresses the need of supplementing clinical studies of psychiatric problems with the technics of biophysical findings Their hope is piously expressed that the search for metabolic equivalents of normal and abnormal mental functions will ultimately establish objective criteria and fundamental causes of discrete psychiatric processes

All the addresses are erudite and authentic commentaries on modern trends in psychiatry, worth reading by everyone interested in the frontiers of psychiatric research SIMON ROTHENBERG

[Continued on page 328]



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[Continued from page 326]

Petticoat Surgeon By Bertha Van Hoosen Octavo of 324 pages Chicago, Pellegrini & Cudahy, 1947 Cloth, $3 75

We hope that all woman doctors will read this life of effort and accomplishment—and we advise the doctors of the other sex not to disregard its medical and administrative implications and teachings Dr Van Hoosen was brought up on a farm in Michigan and tells interestingly of her early years She was graduated in arts and medicine from the University of Michigan, and the year 1947, the date of the printing, finds the doctor still functioning at the age of 84 The jacket blurb tries to make something of her trials and tribulations as a "hen medic," but it would seem that the doctor herself concedes that her problems may have been complicated by her "redheadedness" JOSEPH RAPHAEL

Stereoscopic Atlas of Neuroanatomy By H S Rubinstein, M D , and C L Davis, M D Quarto of 43 plates, and descriptive pamphlet of 19 pages Illustrated New York, Grune & Stratton, 1947 $10, set

This work consists of 43 stereoscopic photographic plates with a companion guide to enable one to correlate the figures with dissections There are demonstrations of the central nervous system's development as well as views of the gross external and internal structures of the brain A few photographs lack clarity, as in some of those portraying the basal ganglia.

This atlas can be highly recommended to all who desire to study the spatial configuration of the various parts of the brain

ARTHUR J LAPOVSKY

Skeletal Tuberculosis. By Vicente Sanchis-Olmos, M D Translated by John G Kuhns, M D Octavo of 261 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $5 00

This Spanish author describes in detailed and illuminating fashion the pathogenesis and pathology of bone tuberculosis He divides bone tuberculosis into three types, granular, exudative, and caseous osteitis The pathology of each type is illustrated with slides, x-rays, and clinical findings The author contrasts the methods of treatment and clinical concepts of two continents

In Part II, various parts of the skeleton, such as the head and face, elbow, wrist, spine, etc , are discussed separately CARMELO C VITALE

Essentials of Pharmacology By Frances K. Oldham, Ph D , F E Kelsey, Ph D , and E M K Geiling, Ph D Duodecimo of 440 pages, illustrated Philadelphia, J B Lippincott Co , 1947 Cloth, $5 00

The authors and collaborators have produced a most exhaustive and scholarly treatise on one of medicine's many specialties Reading it with considerable mental indigestion, one realizes that pharmacology has become one of medicine's most keen-edged tools, to be used cautiously and skillfully but with confidence when one has mastered it

The crude science of Hippocrates, the dogmatism of Galen, the practicality of Paracelsus, the spade work of Karl Binz and Rudolf Bucheim resulted in the founding of the first chair of pharmacology at the University of Dorpat in 1849 This and its continuation to the present time is all covered most painstakingly The new and most complex story of the sulfas, penicillin, hydrolysates amino acids and their production and disposal in the body chemistry, is a volume in itself It is a most versatile and authoritative work THOMAS F NEVINS

Dr Samuel Guthrie, Discoverer of Chloroform, Manufacturer of Percussion Pellets, Industrial Chemist (1782–1848) By Jesse Randolph Pawling, M D Octavo of 123 pages, illustrated Watertown, N Y , Brewster Press, 1947 Cloth, $3 50

This is a good biography of an interesting man, Dr Samuel Guthrie, 1782–1848, who practiced medicine in Sackets Harbor, Jefferson County, New York, and found time to be a good chemist. At his home is a New York State Education Department marker saying "Home of Dr Samuel Guthrie, Discovered Chloroform, 1831, Invented Percussion Caps, Surgeon in War of 1812" Chloroform was in use in general anesthesia, within seven teen years of its discovery by Sir James Young Simpson of Edinburgh, although Dr Guthrie had previously demonstrated its anesthetic powers and surgical application under the popular names of "Sweet whiskey" and "Guthrie's sweet whiskey" The priority of his discovery of chloroform in a pure form seems to be conceded

Dr Guthrie was evidently a chemist of considerable ability and communicated the results of his experiments to Professor Silliman of the department of chemistry of Yale University His interest in the manufacture of gunpowder led to his production of "priming powder" in the form of pellets or pills, although, as the author states, it is quite erroneous to designate Dr Guthrie as the inventor of the "Percussion Cap" JOSEPH RAPHAEL

Case Histories in Clinical and Abnormal Psychology Edited by Arthur Burton, Ph D , and Robert E Harris, Ph D Octavo of 680 pages, illustrated New York, Harper & Bros , 1947 Cloth, $4 00

This book is a compilation of case histories in clinical and abnormal psychology by a number of workers in this field who have demonstrated that clinical psychologists can employ useful technics in order to make diagnosis and prognosis in practically every type of case known in the field of psychiatry

The book contains many cases that will be of considerable interest to those psychiatrists and psychiatric social workers who work with clinical psychologists toward the synthetic approach to the understanding of human personality that is provided by their combined efforts SIMON ROTHENBERG

Rhinoplasty and Restoration of Facial Contour With Special Reference to Trauma. By Jaques W Mahmac, M D Octavo of 327 pages, illustrated Philadelphia, F A Davis Co , 1947 Cloth, $7 50

Rhinoplasty and Restoration of Facial Contour brings up to date surgical procedures for restoration of external nasal deformities Special emphasis has been placed on the early diagnosis and modern treatment of nasal injuries Reconstructive technics suggested for the various types of nasal deformities are fully described and made practical through the means of descriptive drawings and photographs It is an excellent book for those interested in rhinoplastic problems GERALD R. O'BRIEN

Psychotherapy in Child Guidance By Gordon Hamilton Octavo of 340 pages New York, Columbia University Press, 1947 Cloth, $4 00

This book presents a complete study of the child

[Continued on page 330]

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[Continued from page 328]

guidance program of the Jewish Board of Guardians in New York Various types of problems are presented and the author then demonstrates how they are handled through a utilization of educational, social, and therapeutic principles, psychoanalytically oriented

For physicians interested in the field of psychotherapy in child guidance, this book should be useful

STANLEY S LAMM

A Text-Book of Bacteriology By R W Fairbrother, M D Fifth edition Octavo of 480 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $6 00

This textbook concentrates on the medical aspects of bacteriology It is thoroughly revised, and deals with bacteria as agents of disease in man and with the application of bacteriologic methods in the prevention, diagnosis, and treatment of disease It incorporates the many important developments in bacteriology that have taken place in recent years It is strongly recommended as an up-to-date, well balanced and clearly expressed account of the accepted teachings in bacteriology

EDWARD H NIDISH

Textbook of Medicine By Various Authors Edited by Sir John Conybeare, D M (Oxon) Eighth edition Octavo of 1,170 pages, illustrated Baltimore, Williams & Wilkins Company, 1947 Cloth, $8 00

To put much into a textbook of medicine and still keep it within 1,170 pages is an art, and that Conybeare and his sixteen English associates have accomplished This is established by the fact that the volume is now in its eighth edition since 1929

Of convenient size and weight, it is often the first to be consulted in the doctor's office Naturally one must not expect too much in details A broad and valuable scope in dealing with disease is maintained, in consequence of which the book has special value for quick and ready reference FRANK B CROSS

Prophet in the Wilderness. The Story of Albert Schweitzer By Hermann Hagedorn Octavo of 221 pages, illustrated New York, Macmillan Co, 1947 Cloth, $3 00

This is a well-written biography on the life of Dr Albert Schweitzer, theologian and philosopher, one of the world's great medical men, who gave up the promise of a prosperous European career to devote his life as a jungle missionary doctor in French Equatorial Africa It is a very interesting and instructive story THOMAS B WOOD

Microbial Antagonisms and Antibiotic Substances By Selman A Waksman Revised edition Octavo of 415 pages, illustrated New York, Commonwealth Fund, 1947 Cloth, $4

This second edition of Dr Waksman's basic text on *Microbial Antagonisms and Antibiotic Substances* comes up to all expectations The distinguished discoverer of streptomycin here gives us a comprehensive, well-balanced survey of the field

Dr Waksman begins by discussing the influence of micro-organisms upon each other as they exist side by side in the soil and in other natural associations Particular stress is placed on antagonistic effects The bulk of the book is devoted to antibiotics, their recognition, production, and methods of assay, their chemistry and their chemotherapeutic and pharmacologic action

In a stimulating last chapter, he describes the methods used in the search for new antibiotics and discusses some of the problems of the future and the ways of solving them ARNOLD H EGGERTH

Modern Treatment of Peptic Ulcer By Asher Winkelstein, M D Octavo of 205 pages, illustrated New York, Oxford University Press, 1948 Cloth, $4 00

No book dealing with this subject can claim to have found the answer to this baffling problem The author, his enthusiasm understood and bias forgiven, expends much space in espousing his own procedure for treatment without offering adequate proof In a small volume he does cover thoroughly the present theories of etiology and methods of approach to therapy It appears to the reviewer that the acid-pepsin factor as the solution for the ulcer problem in treatment especially leaves, as the author notes in his 70 questions on pages 152 to 156, too many things unanswered

BENJAMIN M BERNSTEIN

How Life Is Handed On By Cyril Bibby, M A Octavo of 159 pages, illustrated New York, Emerson Books, 1947 Cloth, $2 00

Life is discussed in a simple manner which any child could understand Each age group is dealt with School teachers or instructors in the grade and high schools could well profit by a study of this volume It could readily be included in the course of study for teacher training Bibby puts in plain language the explanation of the problem of life, which has heretofore too often been obtained by our children in a garbled and lewd manner

ARTHUR D JAQUES

The Principles and Practice of Medicine Originally Written by William Osler, M D, F R C P. Designed for the Use of Practitioners and Students of Medicine By Henry L Christian, M D Sixteenth edition Octavo of 1,539 pages New York, D Appleton-Century Company, 1947 Cloth, $11

Now called Christian's *Practice*, but primarily Osler's in its sixteenth edition, this old friend in new dress presents a text of 1,381 pages, with an index of 156 pages One never tires of browsing in this fine volume, old and new facts are woven into a splendid presentation of internal medicine

The text is abreast of today's knowledge, and every effort is obviously made to hold to all that is good and of proved value and add suggestive ideas relative to new procedures in diagnosis and treatment

References are excellent The index is overextended for instance botulism, covered on parts of two pages, does not deserve a name reference and seven subreferences Re-editing can definitely improve this fault FRANK B CROSS

Teaching Psychotherapeutic Medicine An Experimental Course for General Physicians. Given by Walter Bauer, M D, Douglas D Bond, M D, Henry W Brosin M D *et al* Edited by Helen Leland Witmer, Ph D Octavo of 464 pages, illustrated New York, Commonwealth Fund, 1947 Cloth, $3 75

The impetus for this experiment came from a group of military and naval psychiatrists and medical educators who met at Hershey, Pennsylvania, in February, 1945, under the auspices of the National

[Continued on page 332]

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Committee for Mental Hygiene and the Commonwealth Fund, to discuss the needs of veterans with psychoneurotic reactions This group agreed that care of such patients must be given primarily by general physicians They recommended that an experimental course be set up on a postgraduate level to explore the possibilities of educating the general practitioner for this responsibility

The material presented was compiled from stenographic notes obtained from the course which was given at the division of postgraduate education of the University of Minnesota Its down-to-earth style is highly recommended as a syllabus for the teacher of clinical psychiatry in our medical schools on an undergraduate level The dynamic mechanisms used by the various instructors in the interpretation of the patient's symptoms are Freudian in nature This is fairly consistent throughout the book Of course, this one-sided attitude leaves room for a great deal of doubt and skepticism in those of us who are less orthodox as to the value of the text Nevertheless, it is highly recommended for the clarity and uniqueness of presentation of a difficult subject

JOSEPH ZIMMERMAN

Diseases of the Joints and Rheumatism. By Kenneth Stone, M D Octavo of 362 pages, illustrated New York, Grune & Stratton, 1947 Cloth $6 50

This book, written in two sections, deals with diseases of joints as well as the diseases involving the soft-tissue structure about the joints The section on gout is well written It is a textbook which could be read with interest by the student of arthritis as well as by the orthopedist The illustrations are few but well chosen

IRVING GREENFIELD

Public Health Administration in the United States By Wilson G Smillie, M D Third edition Octavo of 637 pages, illustrated New York, Macmillan Co , 1947 Cloth, $6 50

The field of public health expands so rapidly that a textbook on this subject soon requires revision, therefore, the author publishes the third edition of his book Extensive changes have been made in the subject matter on the control of communicable diseases, housing, the use of insecticides, problems of nutrition, geriatrics, and industrial health

A E SHIPLEY

Gynecological and Obstetrical Urology By Houston S Everett, M D Second edition Octavo of 539 pages, illustrated Baltimore, Williams & Wilkins Co , 1947 Cloth, $6 00

The gynecologist will like the second edition of Everett's work, even though the problems associated with neoplastic disease calculus and tuberculosis receive more attention than ureteral injuries The technic of Kelly air cystoscopy is described in detail The Hopkins ideas on focal infection, ureteral stricture, and elusive ulcers of the bladder originally advanced by Hunner are well discussed

CHARLES A GORDON

The Philosophy of Insanity By a late inmate of the Glasgow Royal Asylum for Lunatics at Gartnavel Large duodecimo of 116 pages New York, Greenberg Publisher, 1947 Cloth, $2 50

This book, by an anonymous author, was first published in Glasgow in 1860 The author, who had recovered from a psychotic episode, was inspired to write his experiences while confined to a psychiatric hospital He stressed the principle that the difference between psychotics and normal patients is a quantitative rather than a qualitative one, and that thoughts and ideas which govern the conduct of psychotics were to be found in apparently normal people Written so long ago, it is truly remarkable that the author had possessed such a profound understanding of psychologic mechanisms

IRVING J SANDS

Practical Clinical Psychiatry By Edward A Strecker, M D , Franklin G Ebaugh, M D , and Jack R Ewalt, M D Section on Psychopathologic Problems of Childhood By Leo Kanner, M D Sixth edition Octavo of 476 pages, illustrated Philadelphia, Blakiston Co , 1947 Cloth, $5 00

This is a textbook for use by students of psychiatry and by psychiatrists for ready reference It deals with the mental diseases of childhood, middle age, and advanced life

Strecker, Ebaugh, and Ewalt have compiled a thorough study of psychiatry in this volume

ARTHUR D JAQUES

Physikalische Medizin in Diagnostik und Therapie By Wolfgang Holzer, M D Fifth and Sixth editions Octavo of 769 pages, illustrated Vienna, Verlag Wilhelm Maudrich (New York, Grune & Stratton), 1947 Cloth, $9 00 (Bucherei der Physikalischen Medizin, Band II)

This volume describes all methods of physical medicine—diagnostic and therapeutic The author has made the welcome attempt to correlate the applications of physical medicine with the modern concepts of physics and physiology The physiologic importance of the skin organ is emphasized throughout the book

Undoubtedly it should be of interest and value to all interested in physical medicine

H J BEHREND

Psychiatry for the Pediatrician By Hale F Shirley, M D Octavo of 442 pages New York, Commonwealth Fund, 1948 Cloth, $4 50

Not since Kanner's pioneering book, *Child Psychiatry*, published 1935, has there appeared such a readable and authoritative treatise as this most commendable book In some measure it is a compliment to Dr Kanner, since the author studied under the former and naturally radiates the fundamentals of child psychiatry as it became integrated with pediatric practice in the Harriet Lane Home at Johns Hopkins Hospital

The medical student, pediatrician, and general practitioner who desire a basic acquaintance with the working tools of child psychiatry could do no better than embrace this attractively written book

FREDERICK L PATRY

Plague Laennec (1782–1826) Inventor of the Stethescope and Father of Modern Medicine By Arthur N Foxe, M D Octavo of 122 pages, illustrated New York, Hobson Book Press, 1947 Cloth, $2 50

This well-written historical biography on the life of Laennec (1782–1826), inventor of the stethescope and father of modern medicine, is a most interesting book, both for its factual content and its choice literature Anyone interested in medical history should possess this important document Reader interest is kept alive from the first page to the last

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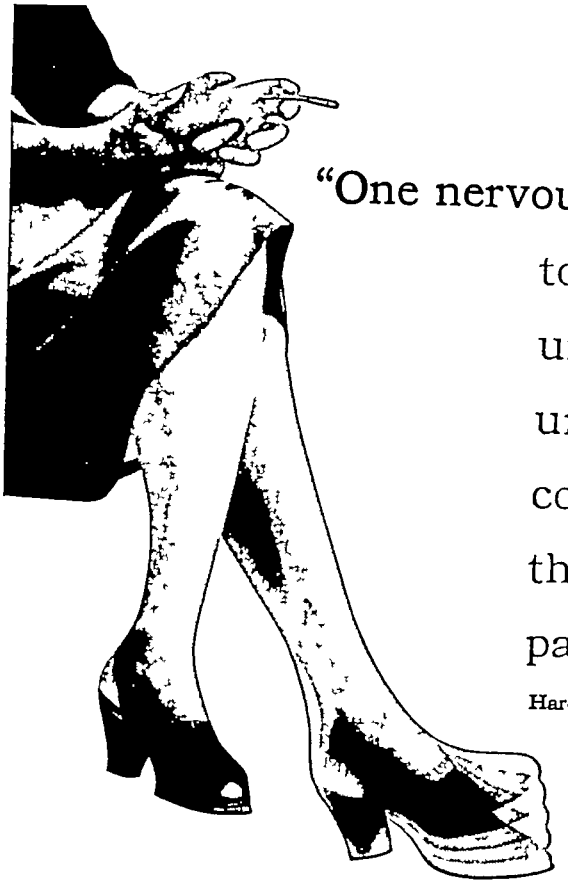
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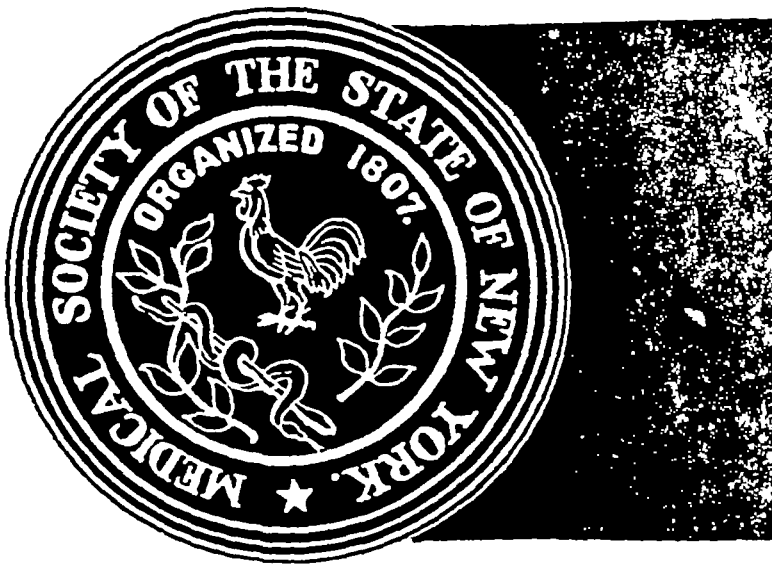
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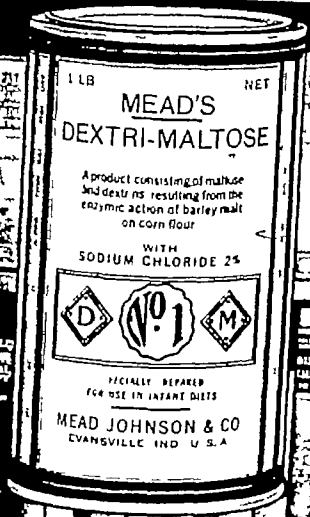
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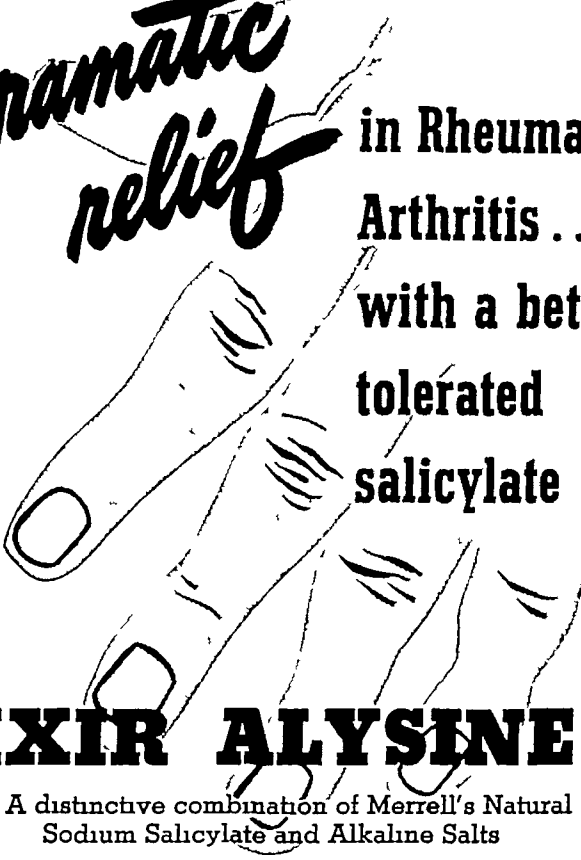
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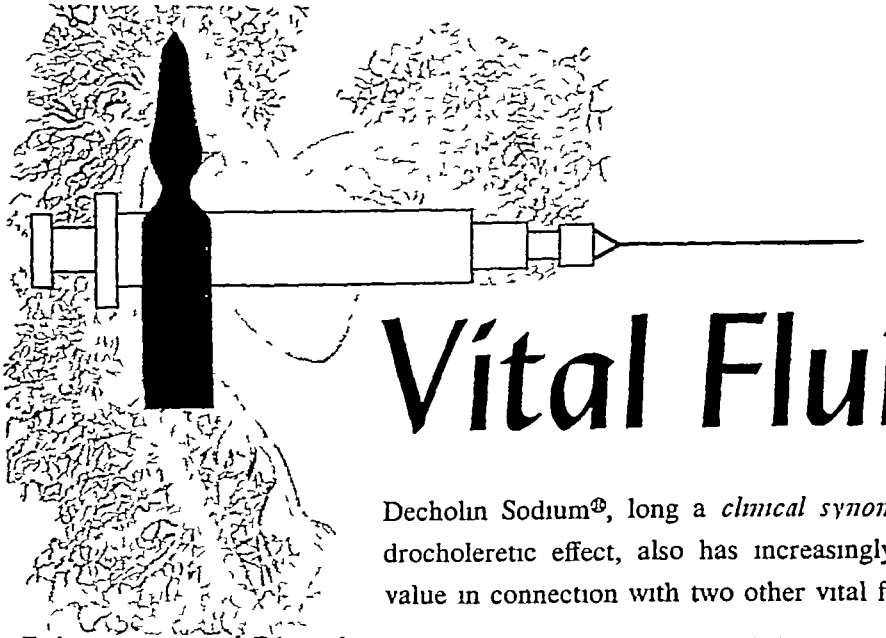
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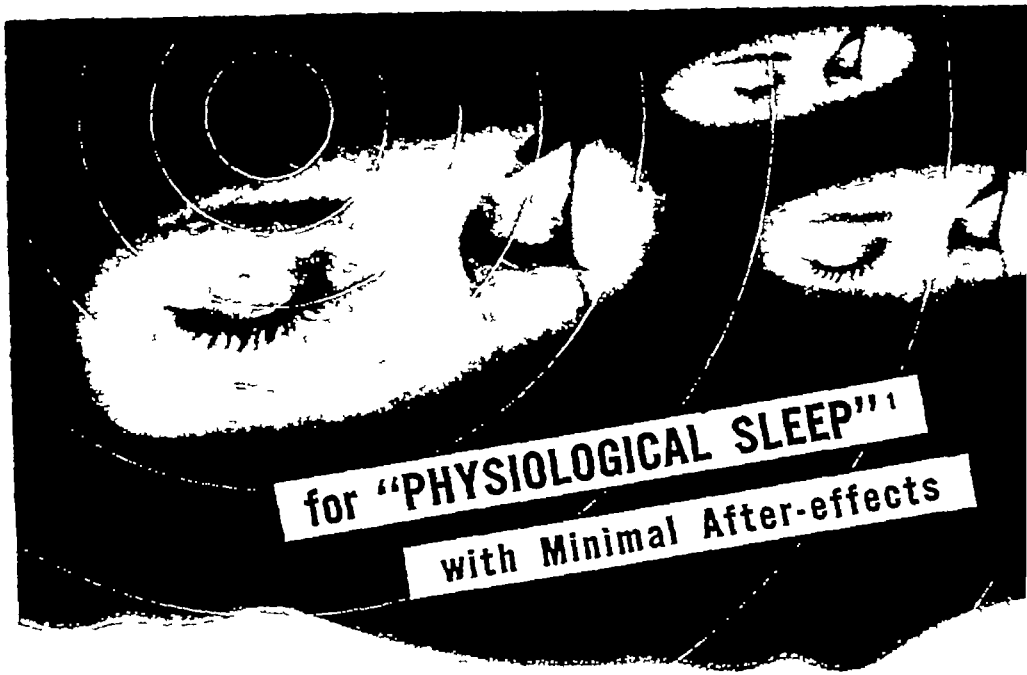
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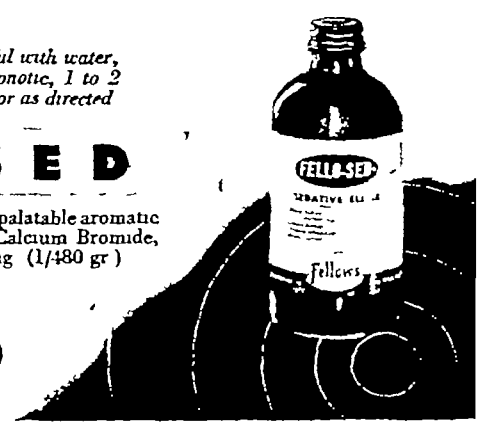
[1]N.N.R., 1947 p. 398.
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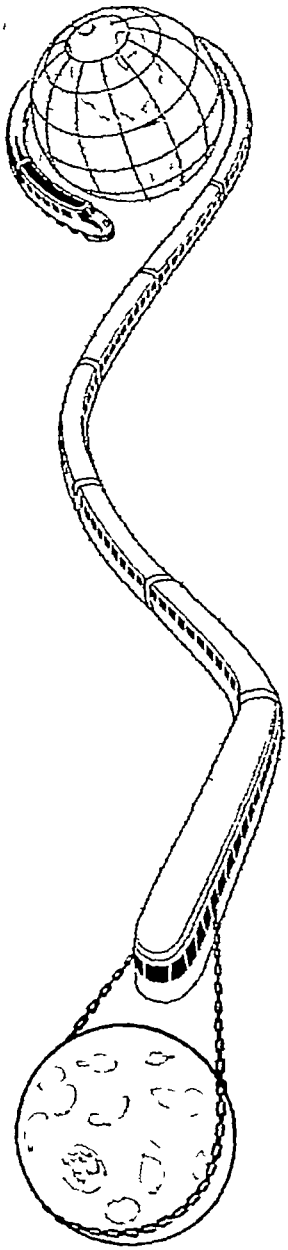
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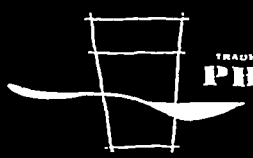


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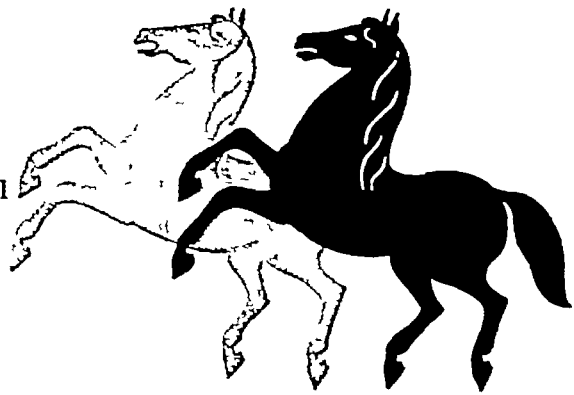
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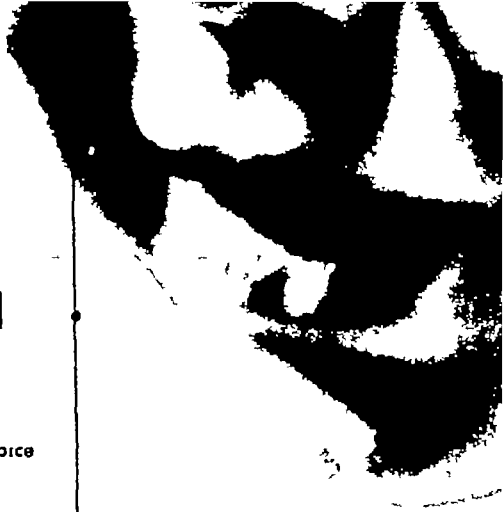
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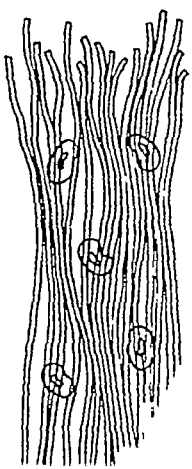
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- It provides the principal *natural* belladonna alkaloids in unvarying optimal ratios—is compatible with many adjuvant medications
- It comprehensively combines peripheral and central sedation—for cases of either somatogenic or psychogenic etiology
- It's potent spasmolysis **spoonfed!**

Each 5cc of Donnatal Elixir contains.

Hyoscyamine Sulfate	0 1037 mg
Atropine Sulfate	0.0194 mg
Hyoscine Hydrobromide	0.0065 mg
Phenobarbital (¼ gr.)	16.2 mg

• • • • elixir

Also available as Donnatal Tablets and Donnatal Capsules

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Ethical Pha ma e tical of M i s ac 1878

Richmond 20, Va

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SPOT TESTS

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NO TEST TUBES • NO MEASURING
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Diabetics welcome "Spot Tests" (ready to use dry reagents), because of the ease and simplicity in using No test tubes, no boiling, no measuring, just a little powder, a little urine—color reaction occurs at once if sugar or acetone is preseent

Galatest

FOR DETECTION OF SUGAR IN THE URINE

Acetone Test (DENCO)

FOR DETECTION OF ACETONE IN THE URINE

SAME SIMPLE TECHNIQUE FOR BOTH

1 A LITTLE POWDER  2. A LITTLE URINE

COLOR REACTION IMMEDIATELY

A carrying case containing one vial of Acetone Test (Denco) and one vial of Galatest is now available This is very convenient for the medical bag or for the diabetic patient The case also contains a medical dropper and a Galatest color chart. This handy kit or refills of Acetone Test (Denco) and Galatest are obtainable at all prescription pharmacies and surgical supply houses.

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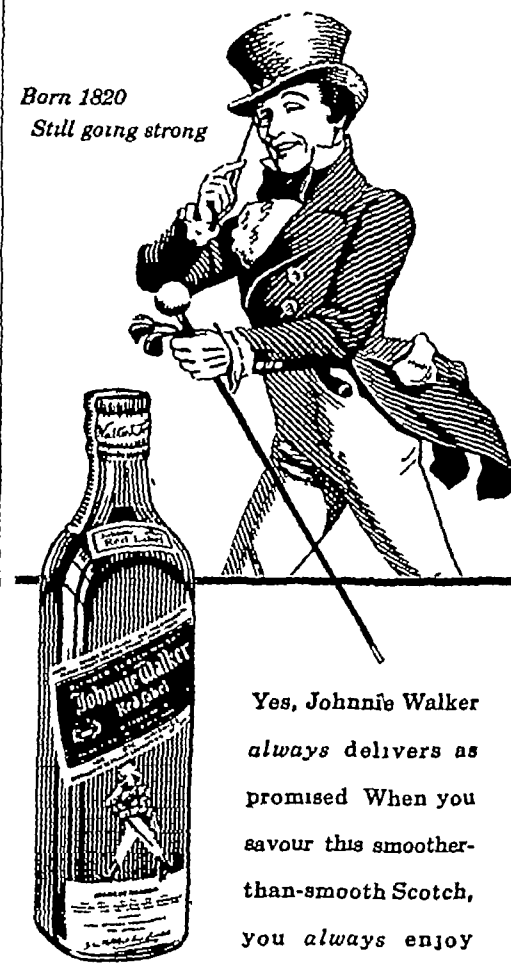
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the only salt substitute that tastes exactly like salt

wes sal is a joy to patients on low-salt (sodium) diets It's the *only* salt substitute that makes food taste *exactly* as if seasoned with salt No bitter, no disagreeable taste Used freely at the table—in cooking and baking ○ Sodium free, safe, convenient, *wes sal* assures eating without cheating, a minimum intake of harmful sodium, better nourishment, and grateful, happier patients in

congestive heart failure • hypertension • toxemias of pregnancy

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division of Foster Milburn Co

wes·sal is a solution of lithium chloride with small amounts of citric acid and potassium iodide (iodizing traces) Bottles of 2¼ oz.



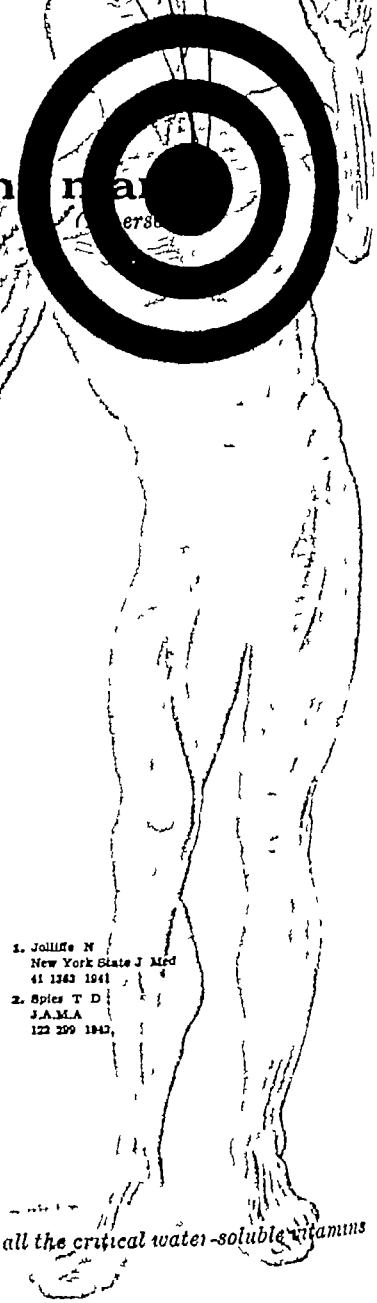
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water-soluble

vitamin

therapy

"aim above the mark to hit th[illegible]



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or other official recommendations.

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Riboflavin (B_2)	**10 mg**
Calcium Pantothenate	**10 mg**
Nicotinamide	**50 mg**
Ascorbic Acid (C)	**250 mg**

A H Robins Co inc. Richmond 20 Va

ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878

1. Jolliffe N New York State J Med 41 1263 1941
2. Spies T D J.A.M.A 122 299 1943

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Robins

all the critical water-soluble vitamins

STUDY EVALUATES IRON PREPARATIONS

HEMOGLOBIN INCREASES (Gm per cent)	1 0 2 0	2.1 3 3	3 4+
Molybdenized Ferrous Sulfate	21 8%	56 3%	21 8% (78 1%)
Ferrous Sulfate	77 7%	22 2%	0 (22 2%)
Ferrous Sulfate with liver-stomach extract or folic acid	70%	30%	0 (30%)

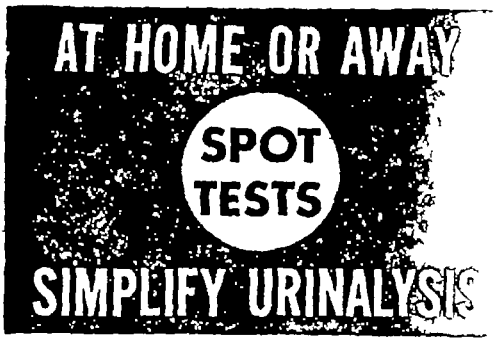
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a specially processed, co precipitated, stable complex of molybdenum oxide 3 mg (1/20 gr) and ferrous sulfate 195 mg (3 gr) In bottles of 100 and 1000 Tablets Also available in a highly palatable Liquid in bottles of 12 fluid ounces

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Galatest

FOR DETECTION OF SUGAR IN THE URINE

Acetone Test (DENCO

FOR DETECTION OF ACETONE IN THE URINE

SAME SIMPLE TECHNIQUE FOR B

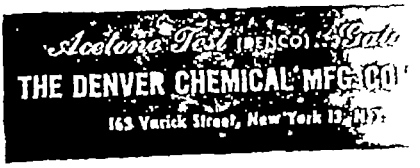
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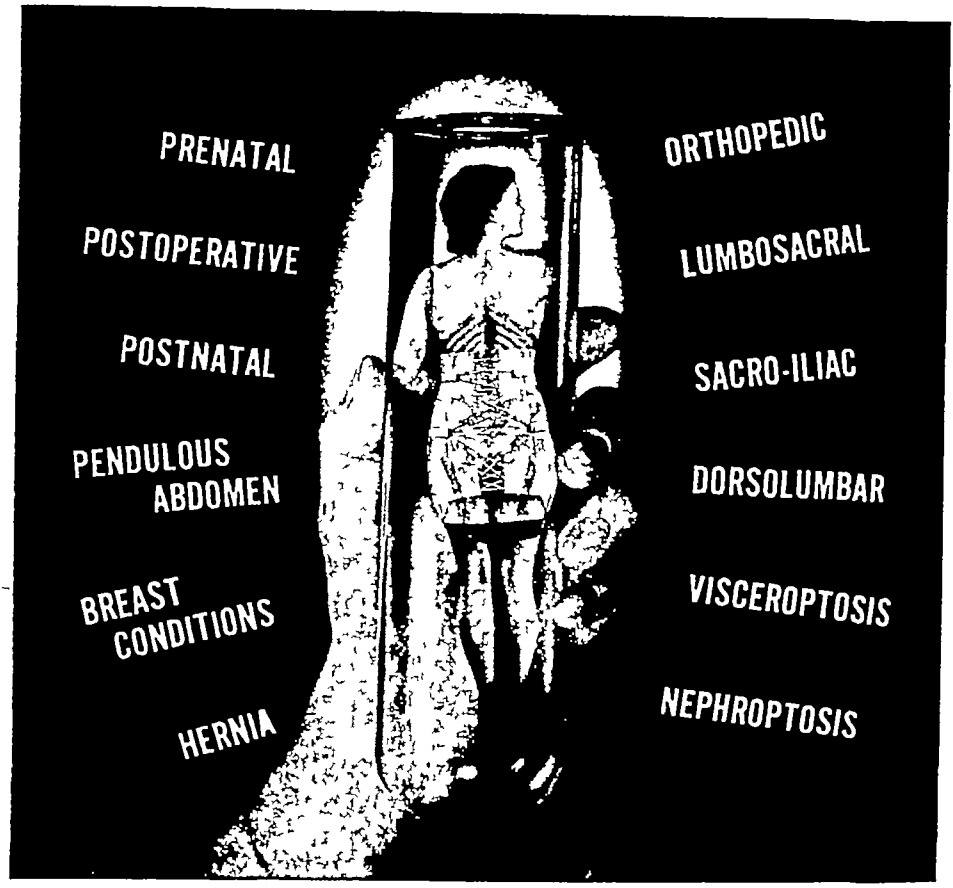
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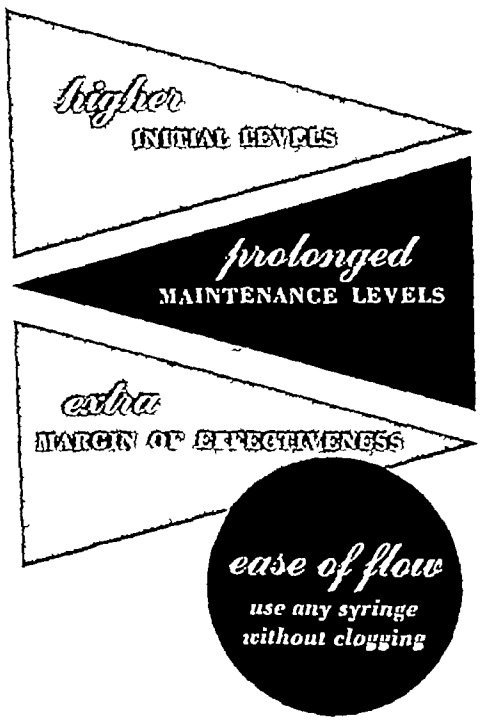
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Within a half hour or less after the injection a high concentration of penicillin is found in the tissues.

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Rapid onset and prolonged maintenance of higher levels means more effective antibacterial action than possible with penicillin in retardant vehicles.

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Higher levels quickly obtained permit early dominance over infecting organisms and diminish likelihood of penicillin fastness.

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Penicillin S-R contains no oil, no wax, no added suspending or dispersing agents to impede injection or clog needle and syringe.

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Easily and quickly prepared	Free-flowing	Syringe and needle need not be dry	No sensitizing diluents
Aqueous diluent	Quickly injected	No plugging of needles (20 or 21 gage)	No added suspending agents
No vigorous shaking	No special-type syringe	Syringe and needles easily cleaned	Completely absorbed
			Minimal pain

PENICILLIN S-R is supplied in both one-dose (400,000 units) and five-dose rubber-diaphragm-capped vials. When diluted according to directions (with Water for Injection, U.S.P., Normal Saline Solution, U.S.P., or 5 per cent Dextrose Injection, U.S.P.) each cc. contains 200,000 units of crystalline procaine penicillin-G and 100,000 units of buffered crystalline sodium penicillin-G. The one-dose vial is also available with an accompanying ampoule of Water for Injection, U.S.P., if desired. Potency of the suspension is maintained for seven days at refrigerator temperatures.

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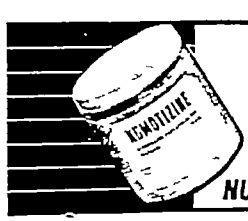
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. . . relieves pain . supplies moist heat promotes decongestion
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Methyl Salicylate 0.60 Glycerine C. P 51.0.0 Carmine 0.30

Dear Doctor.

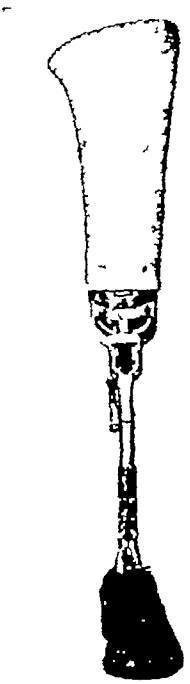
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With single column shin structure, new improvements have been developed including cosmetic cover

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General Manager

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Dasin



In Colds

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Sedacof and Codeine



For Coughs

When annoying cough complicates the respiratory infection, Sedacof and Codeine is indicated. Presenting per fluidounce codeine phosphate (1 gr.), sodium citrate (16 gr.), ammonium chloride (2 gr.), ephedrine hydrochloride (1 gr.), antimony and potassium tartrate (1/16 gr.), pilocarpine hydrochloride (1/20 gr.), and aromatics (q.s.), Syrup Sedacof and Codeine acts as a secretolytic agent, promotes ciliary function important for removal of secretions, and affords needed sedation for suppressing the cough reflex.

Sedacof and Codeine, a palatable syrup, is indicated in the cough of the common cold, in laryngotracheobronchial irritation, influenza, and the hacking cough of the aged. Average adult dose 1 to 2 teaspoonfuls 2 to 4 times daily. Children according to age

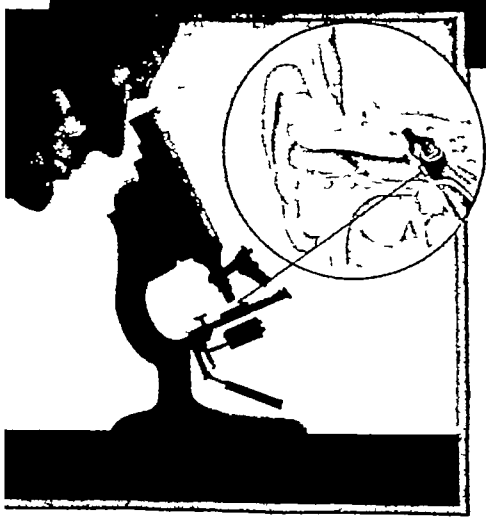
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EACH A SPECIFIC . . . both effective!

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is a scientifically prepared, completely water free Glycerol (DOHO) having the highest specific gravity obtainable, containing antipyrine and benzocaine which by its potent decongestant, dehydrating and analgesic action provides effective relief of pain and inflammation

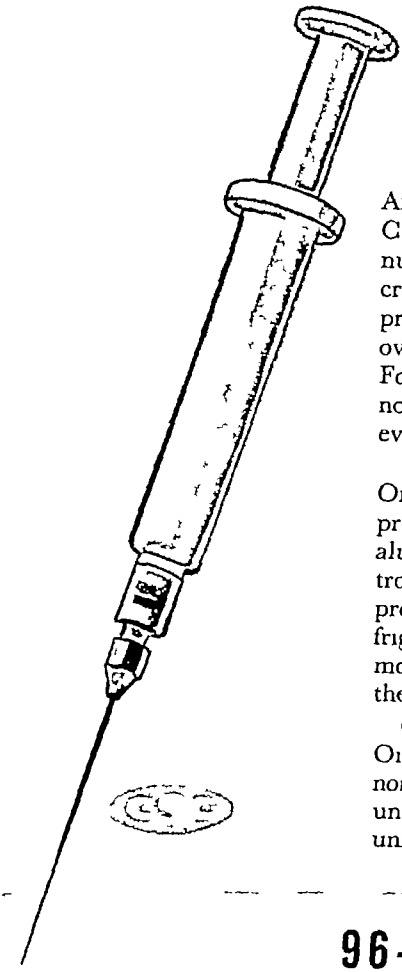
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is not just a mere mixture, but a scientifically potent chemical combination of Sulfathiazole and Urea in AURALGAN Glycerol (DOHO) base which exerts a powerful solvent action on protein matter, liquefies and dissolves exuberant granulation tissue, cleanses and deodorizes, and tends to exhilarate normal tissue healing in the effective control of chronic suppurative otitis media.

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A Single Injection Every Other Day



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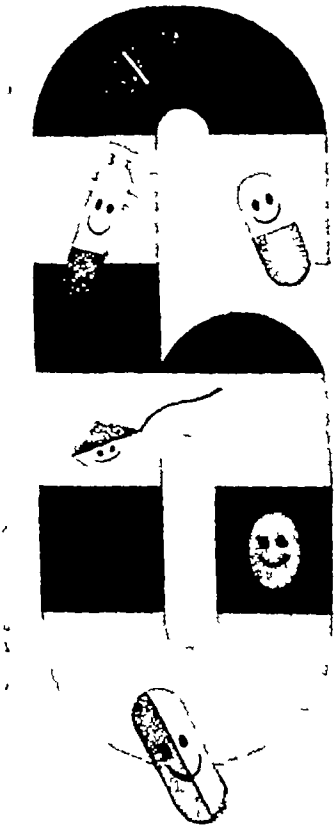
Crystalline Procaine Penicillin G in Peanut Oil-C S C contains 300,000 units of micronized procaine penicillin per cc, together with 2% aluminum monostearate for producing a thixotropic suspension This outstanding penicillin preparation is free flowing and requires no refrigeration It is indicated in the treatment of most infectious diseases amenable to penicillin therapy

Crystalline Procaine Penicillin G in Peanut Oil-C S C is available at all pharmacies in economical 10 cc size rubber-stoppered vials (300,000 units per cc) Also in vials containing 300,000 units (1 cc), in boxes of five vials

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IN PEANUT OIL
WITH 2% ALUMINUM MONOSTEARATE

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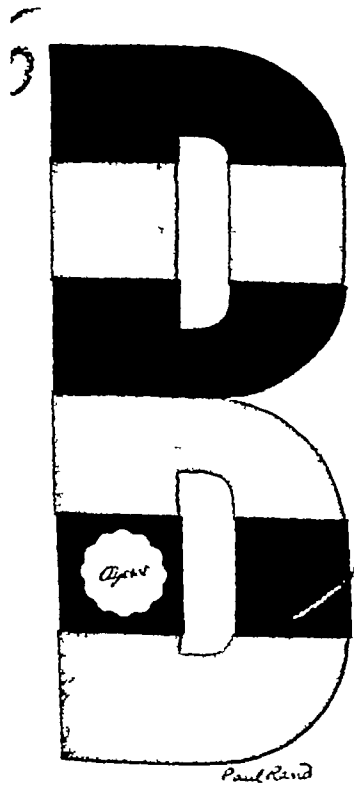


Six of a kind ... *for* 'B' *therapy*

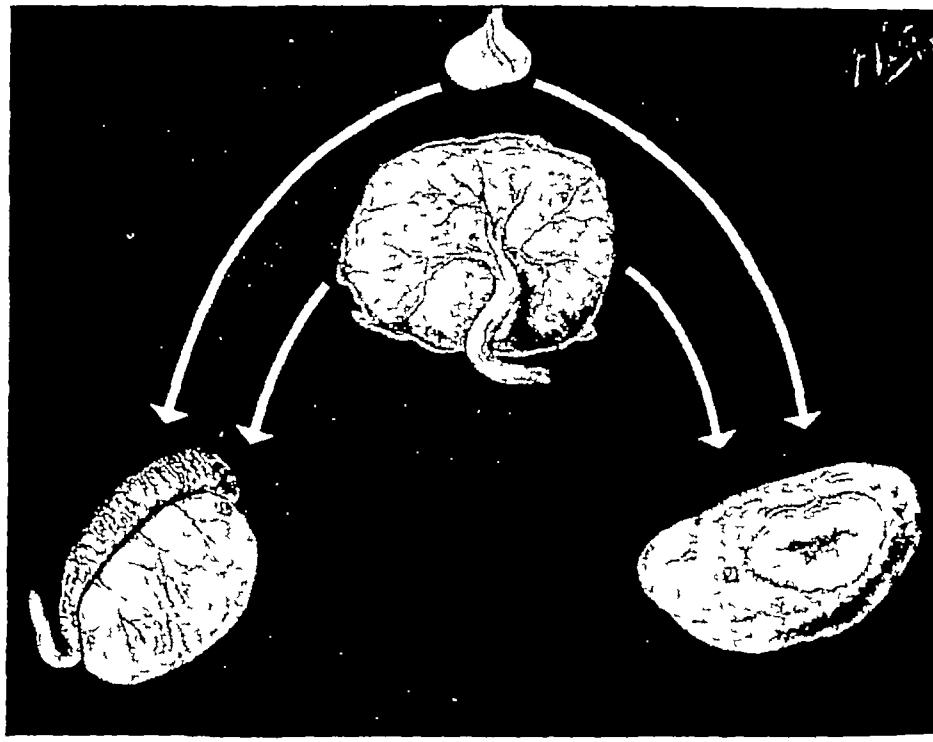
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4 **'Beminal'** *Granules* no 925
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therapy



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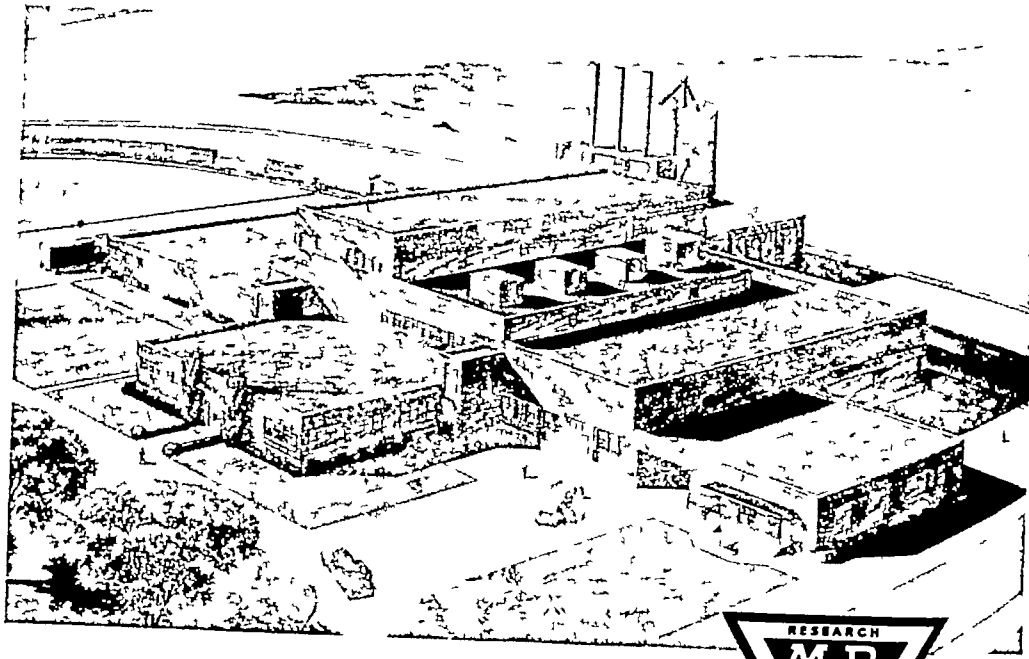
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*As printed in the New York State Journal of Medicine, 44.1214 (June 1) 1944.



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Sikkema, S H and Sevringhaus, E L Dienestrol Another Synthetic Estrogen of Clinical Value, Am J Med *2* 251 (Mar) 1947

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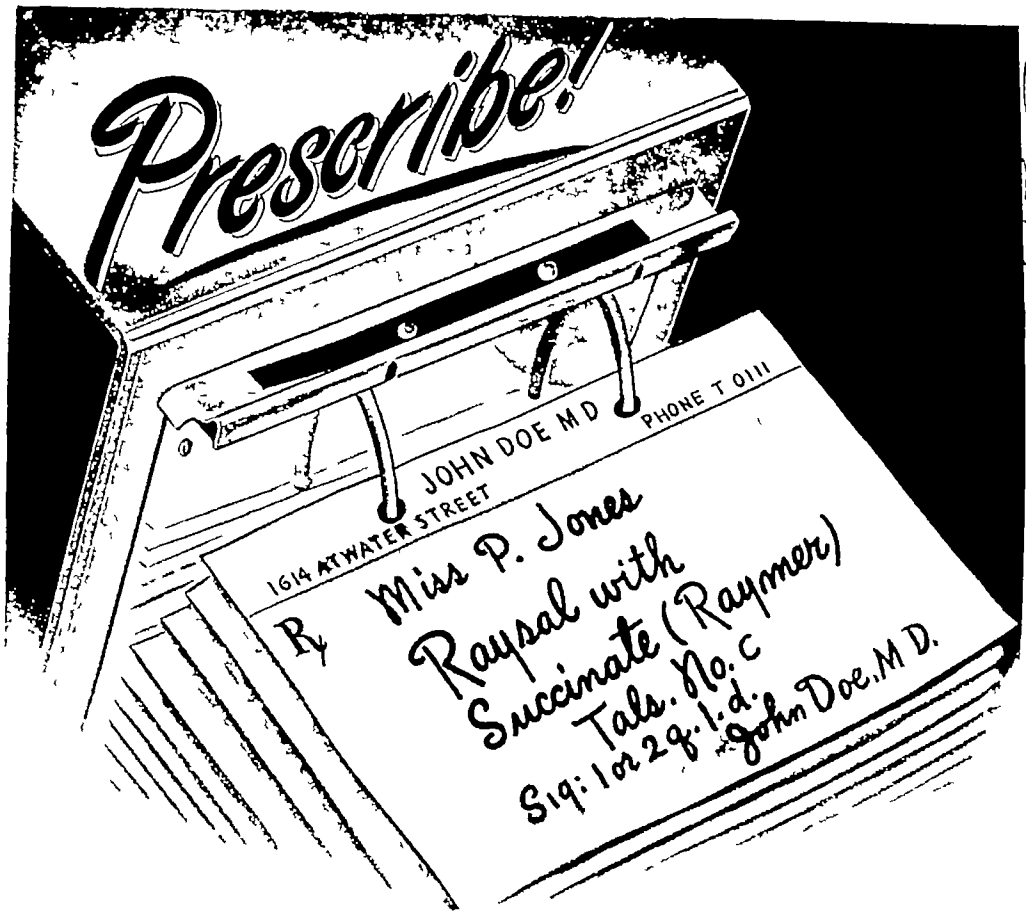
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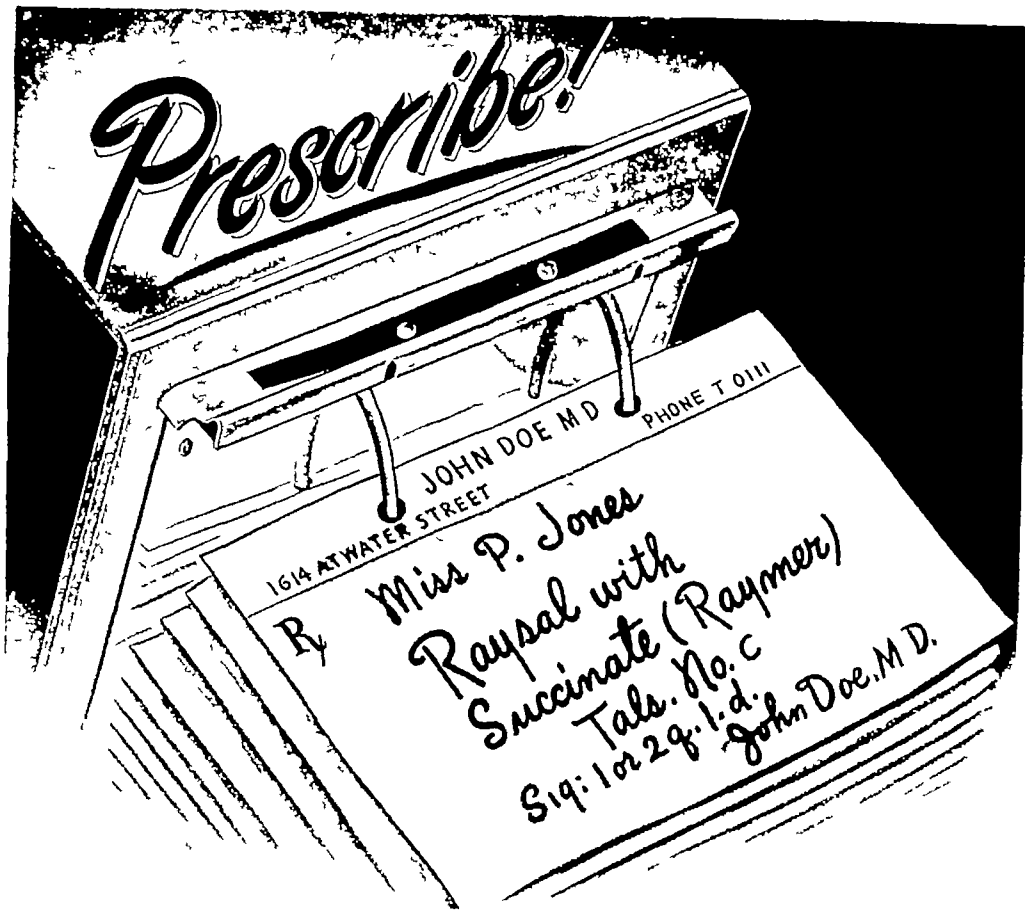
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(1) Paul, W D , and Montgomery, A E J Iowa State M Soc 38 237 (June) 1948
(2) Bubert, H M , and Cook, S S Med Journ 41 146 (Feb) 1948

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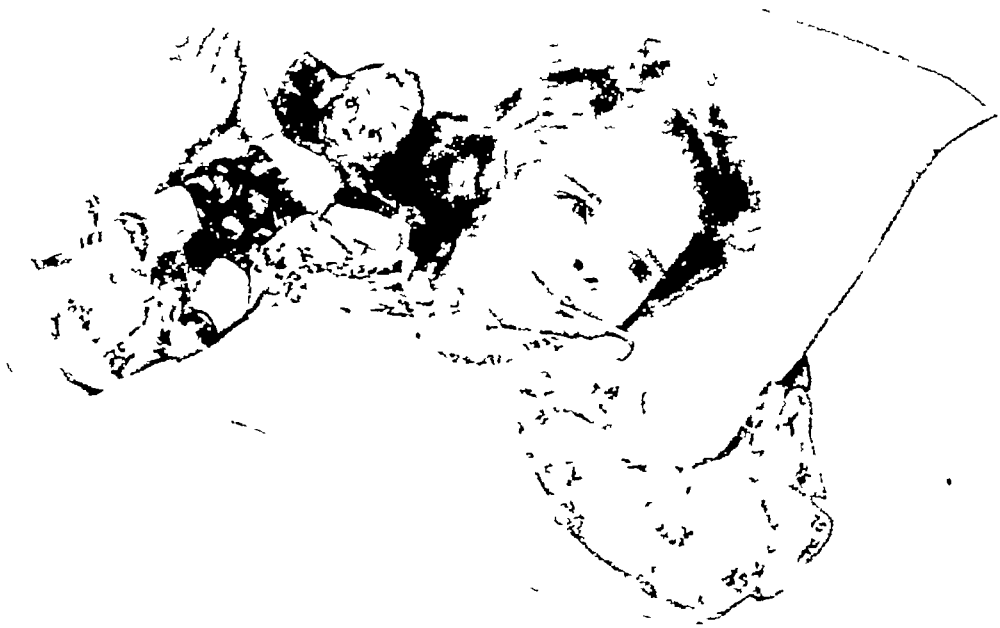
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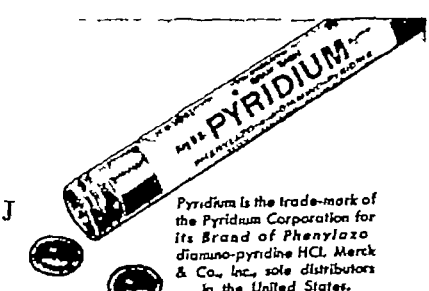
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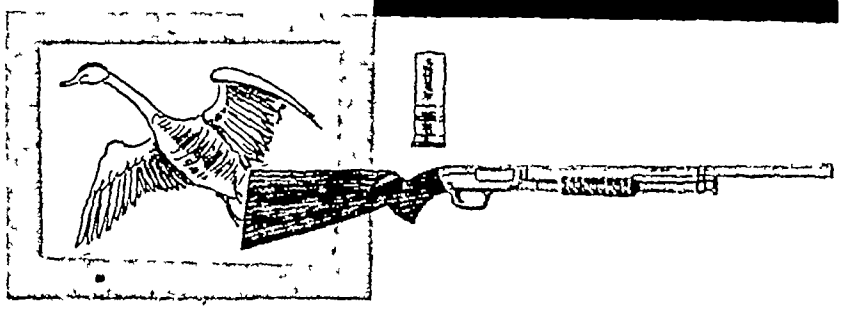
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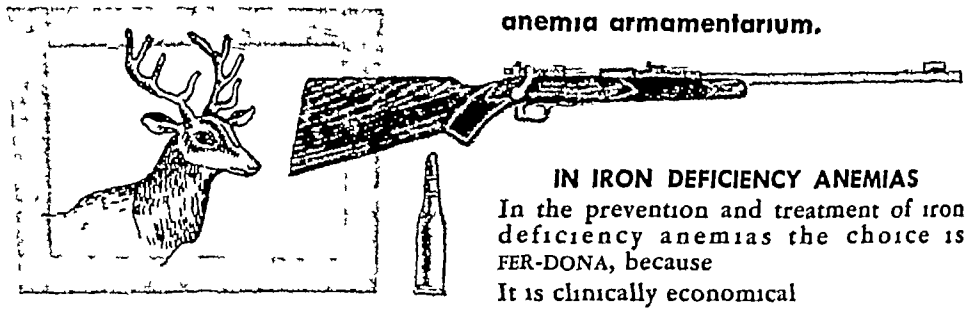
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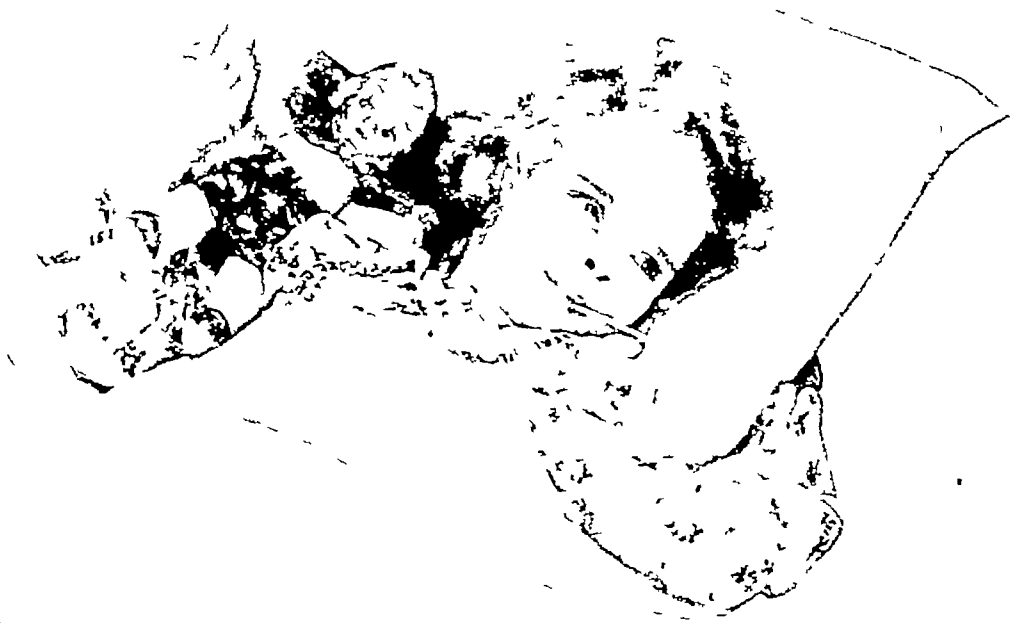
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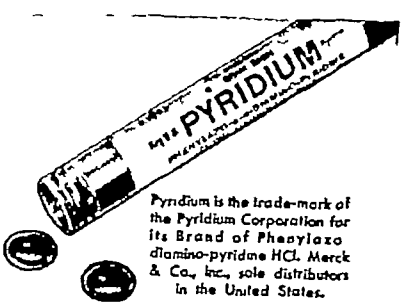
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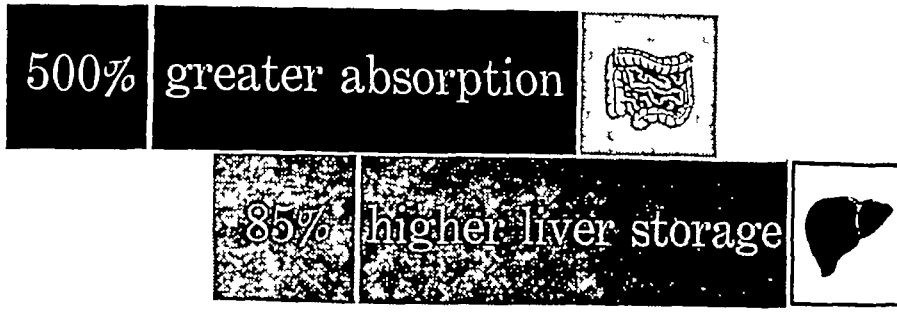
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REFERENCES:
1. J. Pediat. 32:1 (1948).
2. Am. J. M. Sc. 213: 513 (1947)
3. J. Pediat. 32: 119 (1948)
4. New England J. Med. 236: 817 (1947)
5. New York State J. Med. 48: 517 (1948)
6. Lancet 1: 255 (1947)

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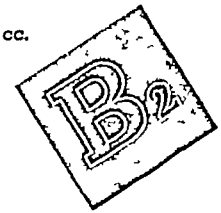
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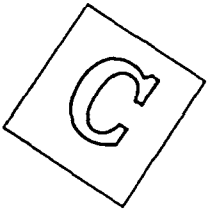
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VOLUME 49 FEBRUARY 15, 1949 1

Editorials

The Health of the American People

The health of the American people is the concern of the people themselves through their government—their elected representatives, and of physicians who by reason of their skills, technics, and scientific alertness now lead the world

The issue of the best method of bringing those attainments of American physicians to all the people is precipitated by the new administration's advocacy of a program of compulsory health insurance Mr Oscar R. Ewing, F S A. head, is presently carrying the ball for the government

The American Medical Association, representing the majority of the country's doctors has announced a campaign of public information to put before the people the facts relating to its advocacy of voluntary prepaid health insurance To do this, the Association is assessing its members $25 a head, little enough, we think, considering the importance of the public health problems involved

Mr Ewing spoke recently in New York City about the government's proposed compulsory health insurance plan According to the *Daily News*, in its edit Smear the Doctors," Mr Ewi in creating a doubt of the va plan [1] Says the *Daily News*, in

> At this stage of the medical feel more against Mr Ewing tha
>
> One big reason why we're so Ewing manner of opening the can suade Congress to adopt his heal
>
> In a recent speech in New York Mr Ewing, instead of explain calmly, saw fit to cut loose with a of the leaders of the American ciation. These gentlemen intend nation's doctors $25 a head in or $3,500,000 fund with which to fig proposals
>
> They have a perfect right to d as we can see, only provided they laws on registering lobbyists in If the doctors haven't such a right have the big labor organizations a money to push their chiefs' ideas, build big kitties to peddle prol don't hear any protests from a circles about these labor and dry

[1] Daily News (Dec. 20) 1948, p 33

To Mr Ewing, however, the doctors' defense chest is a slush fund "to finance the greatest lobby in history for a last-ditch stand," and the doctors collecting the money are "the reactionary elements of the medical profession" Also, "the hour of these gentlemen is past," and they feel "the inevitable breathing hard on their necks"

That is smear language, name-calling, an effort to line up public opinion against the opponent before he has had a chance to open his mouth in his own behalf

It is not fair play We think it is bad tactics We feel sure it cannot contribute to an intelligent solution of the problem of extending adequate medical care to the whole U S population

There is no argument on the fact that many Americans now do not get such care, either because they can't pay for it or because there are not enough doctors Plenty of others, too, depend on rabbits' feet or quacks or witches for their medical help, and plenty more are afraid to consult doctors to find out what ails them, for fear the news will scare them to death

It seems to us that the socialized medicine debate will be much more intelligent and constructive if those on both sides will contribute light instead of heat Mr Ewing's output up to now has been chiefly heat

We'd like some hardpan, factual information, for instance, on such questions as these

If, under the proposed system, a patient can choose his own doctor, what happens when some popular physician is swamped with customers and an unpopular one in the same community finds time hanging heavy on his hands?

How are hypochondriacs (people who think they're sick most of the time but aren't) to be kept from overloading the setup? Same as to chiselers, malingerers, and people who would just love to move into hospitals for good long rests if the government would pay the bills Suppose doctors here and there sabotage the plan, by prescribing unnecessary and expensive medicines, or unneeded spectacles, false teeth, trusses, etc ?

These and many other surprises are cropping up in England, where the Labor Government has recently installed a state medicine system Costs are ballooning above original estimates, while Health Minister Aneurin Bevan screams alibis and oaths

It would be helpful, we feel, if Mr Ewing and his compulsory health insurance friends would let the public know, in plain English, what if any precautions are taken in their plans against some sad and very costly repetitions of the British mishaps

After all, this public health problem is a serious one, and the main object is to get it solved correctly the first time Smearing the American medical profession—which incidentally leads the world in skill, technics and scientific alertness—can hardly help toward that end

The American sense of fair play and the recognition voiced by the *Daily News* of the seriousness of the public health problem, we feel, will become more in evidence as time goes on Facts are badly needed, we agree To this end the American Medical Association's program of public education will be built around three objectives

1 To awaken the people to the danger of a politically controlled compulsory health insurance system

2 To acquaint the people with the superior advantages of American medicine over the government-dominated systems of other countries

3 To stimulate the growth of voluntary health insurance systems and prepaid medical care plans to take the economic shock out of illness and increase the availability of medical care to the American people

There are facts to support all three of the above objectives, and we may assure the *Daily News* and all others that those facts will constitute the foundation of the A M A 's educational campaign On that foundation of fact will be built a body of informed opinion free of political "gobbledegook," available to the public through the monetary contributions of the majority of the doctors of the country whose sole aim is to improve by the best means possible the health of the American people They have pursued this goal consistently and will never abandon it Who else but the doctors have created the public health?

Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo

The President's Page



The medical profession, called by Robert Louis Stevenson "the flower of our civilization," is now on trial Grave decisions will soon be made, which will determine whether our methods of service, our ideals, our independence will endure

We are not opposed to change In fact, we will work continually for change if it is for the benefit of our patients, and if, in the end, that change leaves our individual patient an individual, not a number The physician is only part of the social picture, and it is certain that the profession will not completely control its own destiny in the economic sphere Its spiritual destiny, however, will be its own to preserve gloriously, or to lose miserably

Opposing us are large groups of people of various sorts Sociologists, labor organizations, government bureaucrats, and even minority groups in the profession itself are doing their utmost to shackle the physician in a system of government-controlled distribution of medical care

The issue, as expressed by all of these groups, is for the most part an economic one, and is based on the false idea that money can cure the evils that beset mankind If we add our war debt, the material price of our liberty to date, we are now spending and giving away our great-grandchildren's money, with dogged perseverance, to prove this thesis, but I leave it to you whether the evils seem to be diminishing or multiplying

The physician, on the other hand, points out that the most important thing is a high standard of medical service to the people So both sides are not talking about the same thing at any time

The medical profession is keenly aware of the high cost of medical care No one is more so Medical fees are but a fraction of it It is indeed a very complicated problem The medical profession will accept whatever is for the good of its patients, provided the control of and responsibility for their care is left with the doctors—where it belongs

The medical profession will fight this threat to its patients best welfare with all its strength, and with honor and integrity Our hope is that the people themselves, as this controversy is waged, will distinguish between sound and sound judgment

The long-range program of the government should be to empty the beds of hospitals now existing, rather than to pile hospital on hospital Public health centers widely distributed throughout the United States and intense research to eliminate the diseases that now fill the beds would be steps in the right direction A campaign of Scottish thrift in the government also might become contagious throughout the land, and might eventually prevent us from becoming a nation of querulous mendicants

The true physician, actuated by his ideals, will ever carry on in fair weather or foul He would rather carry on as at present, with the ever-increasing potentialities for good for his patient If, however, he must bow to the whirlwind, his wounds will be on his front and not on his rear, and he will still carry on If a debacle should come, he will again assume control and carry on It will be his duty to do so He knows no other stimulus It is in his blood

The people should not be anxious about their doctors They should be anxious for themselves If medicine should be socialized, that will be here, as it has been elsewhere, the entering wedge to the collective state—the great leveler If this nemesis should catch up with our generation, it will sit down with our children and our children's children

Leo F Simpson

ADVANCES IN PHYSICAL MEDICINE

From the Department of Rehabilitation and Physical Medicine
New York University College of Medicine
Howard A Rusk, M D , Director

Rehabilitation in Multiple Sclerosis

Because of the hopeless outlook in multiple sclerosis, therapy in general has been directed toward symptomatic relief, and the approach has been a negative one In rehabilitation, the disability, rather than the specific disease process which has produced it, is our primary consideration In multiple sclerosis, as in any other chronic, progressive, crippling disease, the problems are the same In considering a patient as to feasibility for training, progression of the disease must be carefully evaluated, for if the disease process outstrips training, such training is obviously wasted

In rehabilitation, the primary consideration, in working out a program for the severely disabled, is to teach him to live, and if possible to work, with what he has left Those capacities can be determined only through performance testing In addition to general diagnostic studies, the medical evaluation of the multiple sclerosis patient must include muscle tests, joint range of motion, and tests for the inherent needs of daily living These are of primary importance, for it is upon their results that the patient's rehabilitation program is planned

Too frequently, in rehabilitation, many of the basic skills necessary for effective daily living are overlooked The patient is given numerous medical, psychologic and vocational services in preparation for employment, but retraining in the basic physical skills of ambulation, elevation and self-care activities is neglected, with the result that the patient, being unable to walk, travel, or care for his personal needs, is also unable effectively to utilize the other medical, psychologic, social, and vocational services he has received for richer and fuller living

It has been found difficult in many instances to differentiate between muscular inability due to disease and that due to atrophy of disuse, and sometimes only a test period of conditioning exercise will provide this information, which is vital in the training program

From the information gained by the tests for the factors of daily living, a suitable program is set up for the individual, designed to meet his particular needs It has been noted, especially in hand activities and gait training, that individuals long incapacitated from multiple sclerosis will have alienation and overcompensation of certain muscle groups With muscle re-education and definitive therapeutic exercise, it is often possible to accomplish much in correcting these conditions

We approach the psychiatric-psychologic problem as a team—the psychiatrist, the social worker and the psychologist—working with the family as well as with the patient

It has been found that the previous personality of multiple sclerosis does not conform to any particular pattern There is immaturity in certain cases, and a great deal of independence and relative maturity in other cases

The main point is that, after the patient's personality is thoroughly known by psychiatric examination, psychologic study and social service investigation, then each problem, as it comes up, can be handled with the full knowledge of the limitations of the patient, psychologically and physically

Multiple sclerosis offers one of the most challenging problems in the entire field of rehabilitation, both from the physical and the psychologic standpoint Therapy in this field requires patient training and deep understanding However, the results in the restoration of confidence and function, although far from satisfactory, have been gratifying

Presented at a meeting of the Association for Research in Nervous and Mental Disease December 11 1948.

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Parenteral Nutrition, I

The reduction in surgical mortality, at a time when surgeons were undertaking an extensive and prolonged attack on pathologic conditions formerly considered inoperable, has been one of the outstanding achievements of medicine during the past decade Advances, too, have been made in internal medicine, some being the direct result of a better understanding of the metabolic needs of the human organism In surgery, practical application of this understanding must begin before the patient goes to the operating room Antibiotics, better anesthesia, and improved technical skill have assisted in bringing about a reduction in operative deaths None of these beneficial factors function, however, if the patient's fate is already determined by incorrect preoperative treatment Likewise, in medicine, a patient may cross a nutritional threshold over which he cannot return because some processes are not reversible Many complications of surgery, such as failure of wounds and anastomoses to heal, sepsis poor response to anesthesia, and operative trauma, are now known to be related to preoperative protein privation Surgeons have reduced surgical mortality by concerning themselves with phases of the patient's care in addition to good operative technic The internist, too, has welcomed the advantages of parenteral alimentation He, as well as the surgeon, deals with patients whose gastrointestinal systems malfunction for various lengths of time It is the purpose here to review briefly the historical development of the various components of parenteral alimentation, including blood which always is food for the recipient, regardless of other medical indications for transfusion

In subsequent issues, symptoms and signs of nutritional deprivation will be discussed Finally, the various nutrient components of the parenteral diet will be delineated, and their interrelationships clarified

Soon after Harvey's discovery of the circulation in 1628, physicians began to think of introducing substances into the body by way of the veins Wren, in 1657, is reported by Keynes to have been the first physician to inject medicinal agents into the veins of animals [1] Wren's reports stimulated Lower to try transfusion of blood from dog to dog Although Denys in 1667 successfully transfused a boy with lamb's blood, for the remainder of the seventeenth century transfusions of animals' blood to man met with frequent failure, and finally legislation was introduced in England to prohibit the practice Early in the nineteenth century (1818) Blundell gave the first transfusions from man to man [2] Six out of ten of these transfusions were failures Undoubtedly, ignorance of the different groups of human blood was responsible for these failures Following the classification of the blood groups in man by Landsteiner in 1901, interest was again aroused in transfusions for blood loss replacement [3] After the discovery by Lewisohn in 1915 of a practical and efficient way to avoid coagulation of the blood by the use of sodium citrate, transfusion technic for the indirect method gradually replaced the direct donor-recipient method [4] Blood banks of today are built upon the work of Landsteiner and Lewisohn

To Thomas Lotta of Leith, Scotland, goes the credit for first using the intravenous route to replace water and salts to the body His account of clinical improvement in patients severely dehydrated from cholera who received intravenous salt and water, and the reports of O'Shaughnessy's chemical analysis of the blood of patients who received this treatment indicate a comprehensive understanding of the electrolyte and water requirements of the body [6] Although the method was used throughout the nineteenth century, contamination by pyrogen was common, and the solutions were not iso

tonic Reactions were, therefore, common, and clinical improvement did not always follow the infusion if isotonic solutions were required for improvement Not until Van Slyke clarified the complex problem of acid-base balance did the intravenous method for replacing water and electrolytes become the accepted method for combating dehydration with its concomitant acidosis or alkalosis [7]

The first injection of carbohydrate into veins was made by Claude Bernard [8] He recorded that cane sugar when injected into the vein soon appeared in the urine, but if it had previously been acted upon by gastric juice (converted to glucose), it disappeared and apparently was utilized In 1896 Biedl and Kraus showed that a 10 per cent solution of glucose disappears following intravenous injection without the appearance of glycosuria or polyuria [9] It remained for Woodyatt and his associates in 1915, however, to demonstrate man's capacity for metabolizing intravenous carbohydrate and to point out the dangers of excessively large doses of hypertonic glucose [10] In 1942 Stewart and Rourke stressed the importance of differentiating between the effect of glucose in water and the effect of glucose in saline [11] Rightly, they called attention to the fact that the former combination was dehydrating, while the latter when introduced intravenously resulted in water retention

Austin and Eisenhey in 1912 suggested that dogs could utilize dog and horse serum administered intravenously as a source of tissue nitrogen [12] It remained for Holman and associates in 1934 to demonstrate that positive nitrogen balance in dogs could be obtained by using homologous plasma intravenously as the sole source of protein intake [13] Similarly, Wangensteen and associates demonstrated that man could be maintained in positive nitrogen balance by administering human plasma intravenously as the only source of nitrogen intake [14] It is now known that plasma protein given intravenously soon disappears from the circulation and apparently becomes a part of general body protein stores [15 16] In 1939 Elman and Weiner reported the use of an acid hydrolysate of casein with added tryptophane and cystine for intravenous alimentation, and they reported positive nitrogen balance with its use [17] Many nutritional studies since 1939 have centered attention on the fact that positive nitrogen balance can be maintained in man by parenteral use of an enzymatic casein digest [18 19]

Fat, as a nutrient having calorie value, has not kept pace with preparations of protein and carbohydrate for parenteral use Curiously enough, fat was the first food stuff to be injected parenterally Menzel and Perco injected various types of oil into the subcutaneous tissues of dogs and found that the site of injection showed almost complete absorption of the fat in twenty-four to forty-eight hours [20] Koehne and Mendel have shown that, although fat is absorbed from local sites of injection, there is little utilization of it by the body [21] Fat emulsions for intravenous use have been extensively studied over the past quarter century Nevertheless, a general employment of this method of parenteral alimentation has not been forthcoming Recently, however, a fat component has been developed for parenteral use which appears to have promise [22] Mann *et al* report that their emulsion No 35 is utilized by growing puppies without chemical or histologic trace of fat retention when given them intravenously in amounts not exceeding 30 per cent of their caloric requirement [23]

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Scientific Articles

CHILD HEALTH SERVICES IN NEW YORK STATE

GEORGE M WHEATLEY, M D , New York City

(From the Metropolitan Life Insurance Company)

THIS is a partial report of the study conducted in New York State in 1946 and 1947 by the American Academy of Pediatrics in cooperation with the Medical Society of the State of New York, the State Health Department, organized dentistry, hospitals, and other health agencies to determine the amount and availability of health services for children * The survey was part of a nation-wide project undertaken by the American Academy of Pediatrics to determine the volume of existing preventive and curative services for children as a basis for the medical profession to make recommendations for improving and expanding these services The investigation embraced not only private medical and dental practice but hospital facilities and public health services, including those provided by voluntary agencies for children This paper is concerned with services rendered to children by general practitioners, pediatricians, and other specialists, the comparative amount of service in various parts of the State and in the country as a whole, and certain major facts regarding physicians in the State The complete report will be published in a few months **

Method and Organization

The study depended, in the main, on questionnaires addressed to three chief sources (1) hospitals, (2) private practitioners of medicine and dentistry including their specialties, and (3) public and private health organizations providing health services to children The reliability of the data from private practitioners of medicine and dentistry was checked by a team of professional interviewers who visited a representative sample of physicians and dentists throughout the State

Since a fundamental part of the study was the information from private practitioners, the assistance of the State Medical and Dental Societies was indispensable The project has had not only the endorsement but the active participation of these organizations The work itself was under the immediate supervision of a committee of four pediatricians representing the American Academy of Pediatrics Drs Paul Beaven of Rochester, William Orr of Buffalo, and Frederick Wilke and Thurman Givan of New York City Twelve regions of the State were designated by the State Medical Society, each with a pediatrician to be responsible for the distribution of questionnaires and local interpretation of the study

The State Dental Society's Council on Dental Health, under the chairmanship of Dr Donald H Miller, Dr Franklin A Squires, Dr Waldo H Mork, and the late Dr Burkhart, gave us invaluable aid in securing the cooperation of practicing dentists

Not only was there an excellent response to our request for information by a large majority of physicians and dentists, but many official and voluntary health agencies have made the job easier by helping to obtain some of the data, providing office space, and many other aids The immediate responsibility for the work was carried by a full-time staff headed at first in Greater New York by Dr Theodore Allen, later succeeded by Mr John Peterson Dr Arthur Johnson, retired health officer of Rochester, directed the collection of data for the entire upstate area

Some appreciation of the magnitude of the survey task can be realized from the fact that, although New York is, in geographic area, only the twenty-ninth state, it holds one-tenth of the population of our whole country It has 14 per cent of all the hospital beds in the nation, a sixth of the physicians, a fifth of all the pediatricians, a sixth of all the dentists, and 8 per cent of all the children.

Number and Location of Pediatricians

The definition of a pediatrician for purposes of the study was "any physician who stated he was

* The study in this State was financed largely by the local chapters of the National Foundation for Infantile Paralysis and by a grant from the Association for the Aid of Crippled Children.

** Copies now available may be obtained from the author at 1 Madison Avenue New York 10 New York.

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Pediatrics May 20 1948.

a pediatrician" In the study year 1946 to 1947, the total number of pediatricians in the United States, by this definition, was 3,496 This was 3 per cent of the 116,795 physicians reported in private practice New York State leads all other states, having about twice as many pediatricians as the next highest state, California In relation to child population, New York stands first with 24 pediatricians per 100,000 children, Connecticut, 21, Rhode Island, Maryland-District of Columbia, and Massachusetts, 19, and California, 18 This distribution of pediatricians seems to be related to at least two factors (1) the concentration of population and (2) the income level or per capita income of the respective states In the country as a whole, 1,796 (51 per cent) of the pediatricians are diplomates of the National Board of Pediatrics New York State has 53 per cent of its pediatricians certified by the Board

For analysis of the data, the counties in the State were divided into three groups

Greater Metropolitan—those counties containing a city with a million population or more and those counties adjacent to it with a high population density This included New York City, Westchester, Rockland, Nassau, and Suffolk Counties

Lesser Metropolitan Area—those counties with a city of 50,000 or more but less than a million and adjacent counties with high population density

All Other Counties

The Lesser Metropolitan group of counties includes the cities of Albany, Utica, Syracuse, Rochester, Buffalo, and Binghamton

The map in Fig 1 shows the county groupings based on these definitions of population centers The number and location of pediatricians in the State is shown also on the map The shading on the map illustrates a unique demographic feature compared to most other states, namely, more than half of the Empire State's population is concentrated in a very small section at the tip end of the State, the Greater Metropolitan Area, which, because of its location, is a medical center for several adjacent states It is, in addition, a national and international medical center, attracting patients from distant parts

Location of Physicians in Private Practice

The map in Fig 2 gives the location by counties of physicians in private practice in the State At the time of the study, in the five counties comprising New York City there were 13,323 physicians in private practice out of a total of 19,756 in the State as of October, 1946 The shadings show the concentration of practicing physicians per 1,000 children in each county

Almost three fourths of the general practitioners are located in the Greater Metropolitan Area (New York City, Nassau, Suffolk, Westchester, *and Rockland Counties) In this region,* 82 per cent of all the State's pediatricians practice as do nearly 80 per cent of the other specialists By comparison, 61 per cent of the child population under fifteen years of age live in the Greater Metropolitan area (Table 1)

A comparatively high concentration of specialists is found in the upstate urban areas The explanation may be that important medical centers and medical schools are located in Albany, Syracuse, Rochester, and Buffalo As might be anticipated, there are the least number of specialists in the sparsely settled counties

Age and Sex in Relation to Site of Practice

According to our data, one in ten of the general practitioners in the entire State is sixty-five years or older As Table 2 shows, a disproportionate number of older physicians are outside the Greater Metropolitan Area The proportion is highest (17 per cent) in the least populated

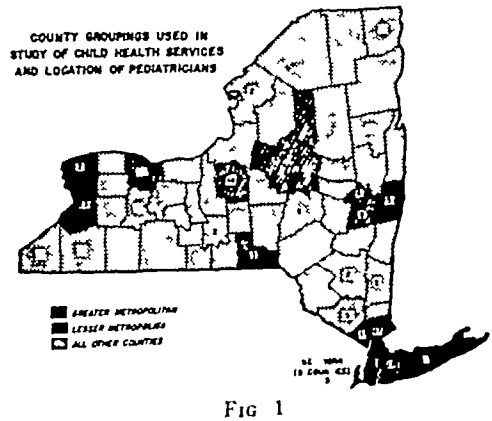


FIG 1

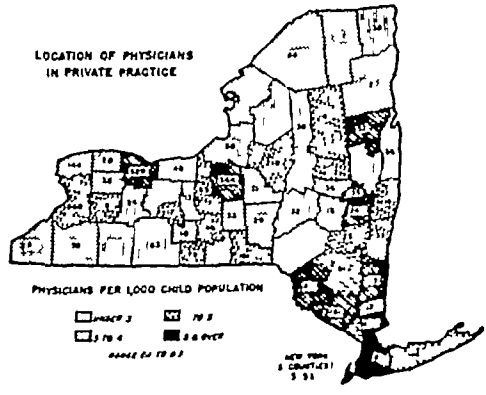


FIG 2

TABLE 1.—Distribution of Physicians and Child Population by County Group

Area	General Practitioners Per Cent	Pediatricians Per Cent	Other Specialists Per Cent	Child Population, Per Cent
Greater Metropolitan	74	82	79	61
Lesser Metropolitan	13	13	16	21
All Other Counties	13	5	5	18

TABLE 2.—Age Distribution of General Practitioners, Pediatricians and Other Specialists—New York State*

Age Group	General Practitioners—Whole State	General Practitioners—Greater Metropolitan County Groups	General Practitioners—Lesser Metropolitan County Groups	General Practitioners—All Other County Groups	Pediatricians	Other Specialists
All ages	100 0	100 0	100 0	100 0	100 0	100 0
Under 35	13 1	13 4	13 9	11 2	15 1	8 5
35–44	35 1	35 6	31 4	35 9	34 6	30 6
45–54	26 3	27 9	25 0	20 2	33 7	34 6
55–64	14 6	14 2	16 2	15 6	13 3	17 6
65 and over	10 6	8 9	13 4	17 1	3 3	8 8

* Percentages.

counties. Only about 3 per cent of the pediatricians are sixty-five years of age or older. This might be expected since pediatrics is a relatively young specialty. Almost 9 per cent of the other specialists in the State are sixty-five years of age or over.

Of the 1,094 women practicing medicine in New York State, 9 per cent specialize in pediatrics, while only 3 per cent of men practicing are in this specialty. Of the 677 pediatricians women constitute 14 per cent. We found that they tend to be concentrated in the Greater Metropolitan Area—81 of the 93 women who said they were practicing pediatricians are in the New York City area.

Availability of Private Medical Care

Figure 3 permits a comparison of the availability of the three categories of physicians—general practitioners, pediatricians, and other specialists—in the several county groups.

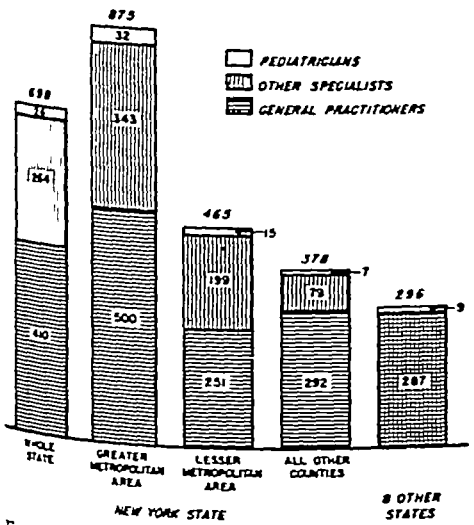


Fig. 3. Number of physicians per 100,000 children.

We have not tried to answer the question 'What is the optimum ratio of physicians to children?" New York State, even in rural areas, is better supplied with practicing physicians than the ratio of 296 per 100 000 for a sample group of eight states.*

TABLE 3.—Pediatricians Per 100 000 Children

New York State	24
Total United States	10
New York State—County Group	
Greater New York area	32
Upstate urban centers	15
All other counties	7

It is evident from Table 3 that New York State is well supplied with pediatricians. The Empire State has about 2½ times more pediatricians per 100,000 children than the United States as a whole. When we study the distribution of pediatricians by county groupings, we see once more the relatively higher concentration of pediatricians in the Greater New York City Area. Even the rural areas of the State have seven pediatricians per 100,000 children.

Private Medical Care of Children

One of the unique findings of the study concerns the medical care received by children. For the first time we have data on the services rendered by a large group of general practitioners and specialists. Of the 19,756 physicians in private practice, 12,259 reported, as requested, the number of child patient visits on one day of practice.

As seen in Fig. 4, in every area of the State, the major portion of the private medical care for children is rendered by general practitioners.

* Data from these states (Alabama, Illinois, Montana, New Hampshire, New Mexico, North Carolina, Oregon, and a composite state—Maryland, District of Columbia, and two nearby Virginia counties) were available for comparison before the national averages were released by the Academy of Pediatrics.

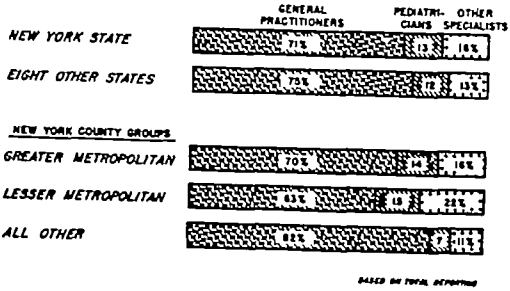


FIG 4 Chart illustrating who gives private medical care for children—per cent of all visits

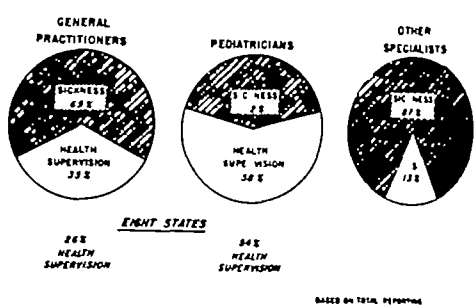


FIG 5 Visits for sickness vs visits for health supervision—per cent of total visits in private practice in New York State

This is perhaps the most significant observation from all the data on private medical care of children For the State as a whole, the proportion is 71 per cent, ranging from 63 in the Lesser Metropolitan Areas to 82 per cent in the outlying areas The total amount of private medical care rendered by pediatricians is somewhat less than that rendered by other specialists This is true for each of the major geographic divisions Specialists of all types care for a larger percentage of children in the big cities It would be surprising if this were not so because, as we have previously shown, more specialists are found in these cities In the less populated districts, the general practitioners take care of most of the children They provide 82 per cent of the private care This is similar to the findings in North Carolina, an essentially rural state, where general practitioners provide 79 per cent of the medical care for children [1]

Visits for Sickness Vs Visits for Health Supervision

Two thirds of the general practitioners' services are rendered to sick children, whereas only 42 per cent of the pediatricians' services are to sick children (Fig 5) A large percentage of pediatricians' services go for health supervision which consists of services such as regulation of feeding, immunization, and health examinations As might be expected, the bulk of the services of other specialists is for care of sickness in children The segment of service for health supervision by other specialists represents well-child visits by internists and obstetricians and indicates the extent to which these specialists are involved in pediatrics It is interesting to note that both the general practitioners and the pediatricians in New York State devote more time to health supervision than do practitioners and pediatricians in the group of eight states In the country generally, health supervision accounts for 28 per cent of visits by general practitioners and 56 per cent of visits by pediatricians [2] The pilot study state, North Carolina, reported that general practitioners saw only one fifth of their patients for such health supervision Only a little more than a third of the visits of pediatricians in North Carolina were for purposes of health supervision It reflects a more widespread acceptance by parents in New York State of the physician's function of health supervision of the growing child

Volume of Private Care

The one-day record of visits submitted by general practitioners and specialists and the twenty-eight day record by pediatricians permit an estimate of the relative amount of private care received by children in the three major geographic groupings Children in the Greater Metropolitan Area received the most private medical care The ratio of visits to children was about 30 per cent less upstate than in the Greater New York Area The differences are smaller with respect to private care for illness than for health supervision The upstate figure for care during illness was about 20 per cent less than in the New York City area, for health supervision, it was 40 per cent less Apparently this also reflects local mores with respect to medical services

Further analysis of our data shows that the great majority of general practitioners see, as a maximum, about 20 patients of all ages in one day and that the average daily number of patients treated is about 12 * Pediatricians see on the average about 11 private patients per day, although 39 per cent of them report seeing between 10 and 20 patients The other specialists who reported visits see on the average of eight patients per day

Nearly one third of the general practitioners reported that on the day specified they had made no visits at all to children, while about 60 per cent of them reported that they had treated between one and ten children during the day About two thirds of the other specialists who re-

* Sundays holidays and days off are included in making these averages.

ported had seen no children on the specific day studied, while only 3 per cent had treated ten or more children on that day

General practitioners also report treatment in more specialized fields for children About 20 per cent of them reported that they did major surgery for their child patients, and 34 per cent reported that they did tonsillectomies for children. Only 5 per cent of the pediatricians performed tonsillectomies, however The majority (71 per cent) of general practitioners take care of the feeding problems of the children under their care.

Place of Treatment

General practitioners and pediatricians, according to our data, see 59 per cent of their child patients in their own offices They see 27 per cent in the children's homes and treat the remainder in hospitals Specialists in other fields see more than half (54.1 per cent) of their child patients in their own offices Nearly two fifths of their services are rendered in hospitals, and only 6 per cent of their care is given in the child's home. This distribution of service between home, office, and hospitals as regards specialists is, of course, to be anticipated, since surgery is the major field covered by the nonpediatric specialists.

Other Professional Activities

The physicians also reported on the amount of time they had devoted during one month to child health conferences, school health services, and other medical activities aside from their private practices Their reports show that one out of every eight general practitioners and almost one out of every three pediatricians participates in child health conferences The general practitioners who participate devote an average of over eleven hours per month to this work, the pediatricians, over ten hours

Ten per cent of the general practitioners and 15 per cent of the pediatricians of those who replied to this question stated that they participated in school health services during the past month Of these physicians, the general practitioners again devoted more time to the work, averaging twenty-one hours per month as against fifteen hours given by the pediatrician group

Practically all of the pediatricians (95 per cent) and a little more than a third of the general practitioners (34 per cent) reported that they had participated in other medical activities aside from their private practices During the month studied, the pediatricians devoted an average of thirty-four hours to this work, the general practitioners an average of twenty-four hours

Pediatric Preparation of Physicians

About 90 per cent of all general practitioners in the State had had at least a year's internship (Fig 6) A substantial number had two years or more of hospital training Almost 70 per cent of those in general practice in the Greater Metropolitan Area have had two years or more, 53 per cent in the outlying counties have had two years or more It is in the group of physicians over forty-five years of age where hospital training is lacking, 14 per cent of those forty-five and over had no hospital training, only 4 per cent of those in the younger group

It is of interest to compare this lack of hospital training with other states Figure 7 indicates that relatively more general practitioners in New York State have hospital experience than in the country generally In fact, for the group of eight states the proportion of general practitioners without hospital training was twice as great as in New York State

Of considerable importance to medical education is the finding that, in New York State, 33 per cent of the general practitioners had had little or no pediatric training after graduation This

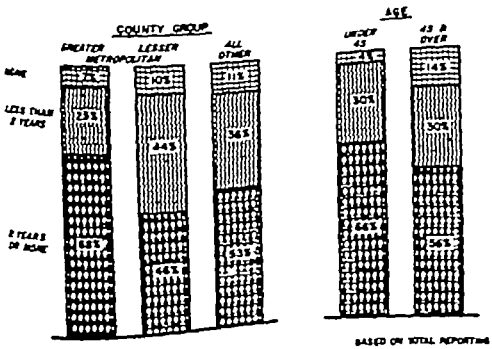


FIG 6 Hospital training—general practitioners in New York State

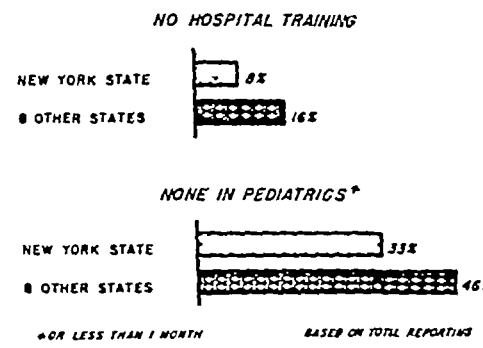


FIG 7 General practitioners lacking hospital training

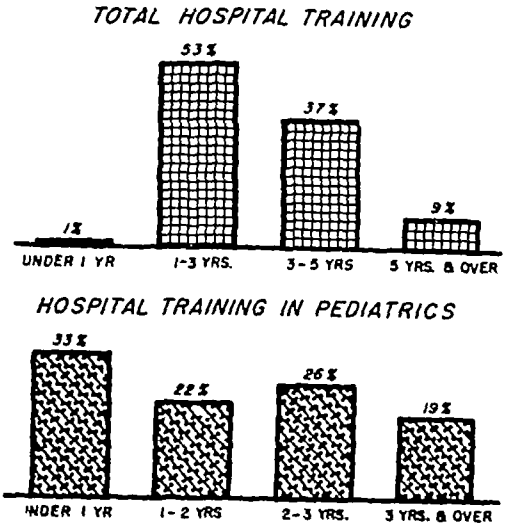


FIG 8 Hospital training of pediatricians in New York State

fact, together with our previous observation that more than 70 per cent of private medical care to children is rendered by general practitioners, stresses the need for more pediatric training for general practitioners, not only in medical school and hospital service but after they have established themselves in practice In spite of this, New York again compared favorably with the national average, with 45 per cent of the general practitioners lacking pediatric training

Hospital Training of Pediatricians

It will be recalled that the definition of a pediatrician in the study was the physician's own statement that he limited his practice to children This may account for the fact to be noted in Fig 8 that a third of the physicians who said they limited their practice to children had less than a year of hospital experience in pediatrics To be eligible for certification by the Board of Pediatrics, a physician must have had at least two years of pediatric hospital training in addition to other pediatric experience As previously stated, slightly more than half of the pediatricians in the State are certified by the Board as specialists

Summary

1 New York State is comparatively rich in physicians in all categories

2 Greatest concentration is in the urban areas, especially New York City

3 Rural areas of New York State compare favorably with other states as regards availability of physicians

4 The bulk of private pediatric care is rendered by general practitioners

5 New York State's general practitioner see one third of their child patients for health supervision

6 Compared to those other states where data are available, hospital training of New York physicians is better than average

7 Although general practitioners render the bulk of medical care for children, a third of general practitioners report little or no hospital training in pediatrics

8 Most of the pediatricians are located in the major population centers

9 The postgraduate training of New York pediatricians is better than average, although a third have had less than one year of hospital training in pediatrics

10 The study points to the need for emphasis on pediatrics in postgraduate medical education especially for the general practitioner who provides 71 per cent of the private medical care to children in the State

Comment

This information and the data on hospital and health service which are to be reported later should be of unique value in planning child health services All too frequently, discussions concerning the lacks and gaps in health services for children have been conducted largely on a speculative and theoretic basis Missing has been information as to the amount of service rendered by the chief dispenser of medical care—the private physician This study has obtained data from 62 per cent of the practicing physicians in the State * For the first time, we have a picture of the enormous volume of child care rendered by private physicians, both in the treatment of illness and in the prevention of disease The study is also notable for the fact that it was initiated by physicians and carried out by them

No doubt, some of the facts which we will have available in the completed report are already familiar to one or more of the medical groups interested in the findings, for example, data on hospital services and public health services These facts, however, have been unfamiliar to many physicians who will now have a better understanding of them This can be one of the most important by-products of the study For the physicians who have actively participated in the study, it has had real value as an educational process in community health organization We physicians have learned not only much about the volume of services rendered in this State to chil-

* Our original mailing list of physicians totaled 22 309 from whom we received 16 234 or 73 per cent returns. Of the 13 756 physicians in private practice 12 259 physicians or 62 per cent reported child visits.

dren, but we have learned a great deal about the State and the many agencies which exist to supplement the work of the practicing physician

Many persons have contributed to make this study a reality Not the least have been the individual physicians and dentists who took the time from their crowded days to answer our questionnaries We thank them for their help and their patience with us We think that securing a return of 73 per cent of our questionnaires is a remarkable achievement It shows an interest and a willingness to cooperate in a medico-social effort on the part of physicians which must confound critics of "organized medicine" The complete report, we are confident, will be a guide for intelligent action by the medical profession and other organizations concerned with the health of children in our State

Mr Herbert Marks medical statistician of the Metropolitan Life Insurance Company gave expert assistance in the review further analysis and interpretation of the statistical data in this report.

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SUPRASPINATUS TENDONITIS CALCAREA

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LESIONS of the supraspinatus tendon including the subacromial bursa are the commonest causes of pain in the shoulder in adults This was pointed out by Codman in 1934 [1] The literature covering this subject describes in great detail the incidence, cause, and pathogenesis of this condition.[2-7] Suffice it to say that supraspinatus tendonitis calcarea is a condition occurring only in adults in the most active period of life and is due to repeated small traumas of the supraspinatus tendon and its intimately connected bursa while impinging against the acromion. Calcification of the tendon and bursa is a natural sequence of pathologic events

The diagnosis of supraspinatus tendonitis calcarea depends upon a careful history, physical and roentgen examination. Pain, the outstanding complaint, is localized in the anterior portion of the shoulder, inferior to the acromion, varying from mild to agonizing, and having been present from one week to six months Limitation of abduction and internal rotation is a secondary complaint due to aggravation of the pain produced by these motions The patient cannot place the hand of the affected extremity on the back of his head nor behind the small of his back The pain is worse at night and on sitting down. It is relieved when the arm hangs unsupported, due to the humeral head dropping away from the acromion in this position. The history reveals a type of occupation requiring repeated and constant abduction over a period of years Physical examination will reveal a site of exquisite tenderness, which I will call the "trigger area," just inferior to the acromion in the anterior aspect of the shoulder Roentgen films of the affected shoulder revealing calcification of the supraspinatus tendon complete the diagnosis Films should be at least three in number, in various degrees of rotation of the humeral head, otherwise small or early calcium deposits may be missed A Bucky-Potter grid and high detail screens are used

The treatment of calcification of the supraspinatus tendon by infiltration, multiple needling, and aspiration was first used by the author while a member of a surgical group overseas in the recent war These records are not available, but this paper is a report of the method and treatment used during the past two years in 52 cases in a general surgical practice with very favorable results in the large majority of cases Lapidus in 1943 reported a series of 34 cases in which a similar procedure was used with prompt relief of pain and recovery [8] The occupational distribution of the cases in this series is shown in Table 1 All patients in this group gave clear-cut histories consistent with supraspinatus tendon stretching under tension day after day These cases all presented the criteria of "trigger

TABLE 1.—Occupational Distribution of 52 Cases of Supraspinatus Tendonitis Calcarea

Occupation	Number of Cases
Machine operators	11
Housewives	7
Truck drivers	6
Laborers	5
Typists	5
Painters	4
Coal shovelers	3
Masons	3
Machinists	3
Telephone operators	2
Bakers	2
Airplane pilot	1

area" and positive x-ray findings of calcium deposit

The technic is as follows The patient is placed in an armchair with the elbow of the affected side resting on an arm The "trigger area" is carefully marked with a colored antiseptic, and the skin in this area is infiltrated with 1 cc of 2 per cent procaine Through the same skin puncture, a 19 gauge, 3-inch needle is introduced perpendicularly into the body of the calcareous deposit The patient should experience pain when the needle penetrates this deposit Should there be no painful sensation, the needle is not correctly placed, and a poor result will ensue should the treatment be continued The physician, being satisfied that the needle is correctly placed, begins the injection A syringe containing 20 cc of 1 per cent procaine is connected to the needle which is transfixing the calcareous deposit, and while injecting the solution slowly and steadily, the needle is repeatedly but partially withdrawn and inserted ten to twenty times, depositing the procaine in a fanlike manner in all directions radiating from the site of the original puncture Grating of the needle point against the calcium is usually felt as it is thoroughly needled, although, if the calcium is very soft, this may not be noticeable Aspiration is frequently attempted during the procedure of infiltration, and although these attempts are usually fruitless, occasionally one will aspirate 1 to 3 cc of milky fluid Should this be the case, the treatment may be concluded then and there, and an excellent prognosis offered The needle point frequently hits the cortex of the humeral head, but I have found that this does not produce any untoward effects When properly performed, the infiltration of the procaine is soon followed by an excellent analgesia and, with the needle still in situ, 40 cc of warm isotonic solution of sodium chloride is infiltrated in a similar manner When the calcium deposit is rather extensive and widespread, I do not hesitate to infiltrate as much as 60 cc of normal saline

Upon the completion of treatment, the shoulder appears swollen, and the patient is instructed to try all types of motion immediately, especially abduction and internal rotation This he does with some hesitation in the beginning but soon finds that he has little pain and then moves the arm rather freely He is instructed to use the arm in his daily activity up to the point of more than moderate pain and told that the shoulder will probably be more painful for the next few days than it was before For this he is given sedatives and instructed that he may apply mild heat to the part but no massage Almost normal mobility without pain usually appears in an average of eight to ten days Should satisfactory improvement fail to appear in that time the entire procedure is repeated

No patient received more than two such treatments Two cases in this group who failed to respond to two treatments were relieved by excision of the subacromial bursa under local anesthesia Two cases, a coal shoveler with a bilateral lesion and a mason with a unilateral lesion, required another treatment eighteen months later with relief Thirty-nine cases were relieved with a single treatment Nine cases did not return for follow-up, and results on them were not available

Several cases were followed with x-ray The calcium deposit either diminished in size or disappeared in most cases within one to three months, but several patients still show fair sized calcium deposits two years later, yet remain symptom-free The absorption of the calcium is attributed to the needling and the fluid injected which results in hyperemia, increased circulation, and local leukocytosis

This treatment was also tried on three cases of acute painful shoulder with "trigger area" but no calcareous deposit with dramatic overnight relief The procedure was of no value in two cases of "frozen shoulder" where there was neither a "trigger area" nor calcium deposit

It may be pointed out that this condition is sometimes self-limited and self-curative, but there is no way of determining which case will or will not require special treatment The patient whose symptoms are severe enough to cause him to seek attention deserves the benefit of treatment and not watchful waiting

Conclusions

1 Acute supraspinatus tendonitis calcarea is one of the most common causes of pain in the shoulder in adults

2 The criteria of "trigger area" and positive roentgen findings of calcium deposit must be present to assure a favorable prognosis

3 Infiltration, multiple needling, and aspiration of the calcareous deposit is a safe and satisfactory treatment

4 The actual removal of the calcareous material is not essential for the relief of pain

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COMMON ERRORS IN PEDIATRIC PRACTICE

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IT HAS seemed useful, from time to time, to review and assess the ideas and practices which we use in our everyday work As we glance back over the years, we are inclined to shake our heads in wonder at the tenacity with which our professional forefathers clung to practices which were not only useless but which were, not infrequently, actually harmful There is no reason to suppose, however, that the present time is a great deal different in this respect from any other Much which is now commonly considered to be the result of experience or demonstrated in the laboratory will be recognized at some future time as based on prevalent fashion or imperfect thinking

With this idea in mind I read a paper some four years ago, in which I recounted what appeared to me to be fallacious ideas and practices then in general use [1] I discussed indiscriminate tonsillectomy, the improper use of myringotomy in infants, indiscriminate hospitalization for the delivery of babies, the mishandling of infants and children in hospitals, principally from the psychologic viewpoint, the neglect of the physician to consider the psychologic attributes of children, and the overemphasis on dietetics and the underemphasis on good cooking In addition, I mentioned, among others, the unnecessary treatment of physiologic bowing of the legs, the premature use of orthodontia, the diagnosis and treatment of rickets because the ribs flare or the legs are bowed or the head shape is unusual, although rickets is not the cause, and the routine use of unnecessarily expensive sugars for babies, although their superiority over the much cheaper, ordinary cane sugar has not been demonstrated I also discussed briefly certain shortcomings in the education of the pediatrician

I fear that my discourse in 1944 has had little, if any, influence on pediatric practice in 1948 Except for indiscriminate myringotomy, which was on the way out anyway owing to the use of the chemotherapeutic agents, and some changes in the hospital care of newborn infants, erroneous practices persist much as before It is my impression that tonsillectomy is more popular than ever, taking its annual toll of some 80 to 90 lives from anesthesia, plus a considerable morbidity, costing society millions of dollars annually and taking up hospital beds unnecessarily More babies are born in hospitals than ever before In New York City the percentage of hospital deliveries is close to 100 The Boston Lying-In Hospital has closed its outdoor service because of lack of applicants for home delivery There has been some humanization of the hospital care of infants and a relaxation of the old aseptic ward technic, and a commendable interest is being shown in the psychologic attributes of children As far as the dietary situation is concerned, mothers still get upset unnecessarily because their children are not getting balanced diets, and the vitamin business is booming The education for the practice of pediatrics is as unrealistic as before

However, I shall proceed today to recount further pediatric practices which, to me, seem erroneous

Care of the Newborn

Shaw, in a paper entitled, "The Most Unphysiologic Period of Life," has compared the natural course of neonatal development with the artificialities of modern care [2] He points out that the newborn infant is endowed with an adaptive pattern of existence Primitively, the infant was born with a minimum of midwifery He was bedded with his mother and promptly put to her breast At first he secured only small amounts of colostrum, but gradually the maternal milk supply was established and an adaptation effected between the needs of the baby and the nourishment supplied by the mother

The initial meagerness of the breast milk was accepted as a matter of course Loss of weight during the early days of life was expected, and whether or not this served a useful purpose, it seemed, at least, to do no harm. As a matter of fact, routine weighings were not done, nor were temperatures taken, and, consequently, dehydration fever was no problem. To be sure, the infant whose mother did not produce enough milk was unfortunate, and it is here that modern pediatrics has made a splendid contribution Delivery at home was the rule, and, consequently, the baby and mother were not exposed to the hazard of epidemic disease in the hospital

The entire course of birth and neonatal procedure has been modified in recent years Most infants are now delivered in hospitals Mothers are subjected to all sorts of procedures to alleviate

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the pain of childbirth and to expedite delivery. As a consequence, many babies are born sufficiently affected by hypnotic, narcotic, and anesthetic drugs to interfere with the normal mechanisms which initiate and maintain respiration. There is a growing conviction, based on clinical observation and experimental work, that the postnatal hypoxia may seriously affect the neonate with far-reaching and dismal effects on his future development and behavior.[54]

Although the majority of obstetricians and pediatricians give lip service to breast feeding, physicians and nurses seem to do everything possible to thwart it. Mother and baby are promptly separated after birth, and the baby is brought to the mother only at specified times which suit the hospital routine, regardless of the baby's demands

In many of the highly rated hospitals in New York City the mother is permitted to see her baby only once a day unless she happens to be nursing him. In one hospital, during an epidemic of neonatal diarrhea, mothers were not allowed to nurse their babies at all! The father, of course, is almost completely disregarded. He can see his baby once a day through a glass window—from 4 00 to 4 30 or from 8 00 to 8 30 P.M

In most hospitals—in New York City at any rate—it is customary to give a formula during the first few days of life, before the breast milk begins to flow, in a vain attempt to prevent the physiologic weight loss This practice discourages breast feeding since it blunts the baby's appetite, thus lessening the intensity of sucking which is a major factor in initiating and continuing the flow of milk.

A further drawback to delivery in the hospital is the effect which the early separation of mother and baby may have on the emotional relations between the two It is natural for the young of mammals, and lower forms as well, to cuddle and snuggle against the mother's body In this way the baby gets not only food, but warmth and skin-to-skin contact which is so soothing to him.

There is reason to believe that the pattern of mother-child relationship, set up during the early days of life, is even more important for the mother than for the baby There are many mothers who did not want to have a baby at this particular time, who are not matured to the point of accepting motherhood, or who are having a baby because they think they ought to, without any real desire to do so To some mothers, having a baby means an annoying interruption of work outside the home which is profitable or absorbing, or both

In these instances every effort must be made to establish, at the earliest possible moment, an in-

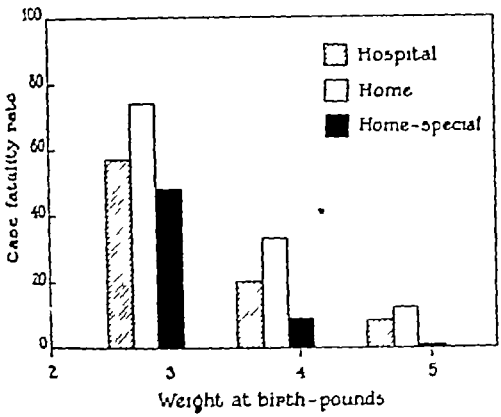


FIG 1 Comparison of the case fatality rates for infants cared for in a modern American premature unit ("Hospital"), at home without special nursing guidance, and at home with special nursing aid From data kindly supplied by Dr F J W Miller, Newcastle-upon-Tyne, England.

time The accuracy of predicting the duration of pregnancy was determined by Hotelling and Hotelling on data obtained from the clinic of the Lane Hospital in San Francisco [5] They found that the duration of pregnancy can be predicted within eleven days in two thirds of the cases and within twenty-two days in about 95 per cent of cases. It is customary among obstetricians to label as premature a baby who is born four weeks or more before term. It seems to us that a diagnosis of prematurity should be based on three criteria the length of gestation, the clinical appearance of the infant, and, lastly, the birth weight

More important for us, perhaps, than the definition of prematurity is the care of the premature Here, it seems to me we are making a major error to wit, all prematures require hospital care in a specially designed unit Nowhere in the American literature is there any intimation that the premature can be cared for at home The emphasis is on an elaborate, expensive hospital setup In this relation the experience of Dr Elaine Field in the care of prematures in London during the early years of World War II is worth mentioning [6] Her unit was in a side room off the obstetric ward in the basement of the hospital The premature room functioned also as the head nurse's office To this room, students, nurses and medical staff had free access Masks and gowns were worn by the nurse in attendance but rarely by the medical staff The results were not notably different from those obtained in the much more elaborate American premature units Although the number of cases in her series was too small for accurate statistical comparison, they indicate that babies, 3½ pounds and over, fared at least as well as do ours

Even more significant are the results of F J W Miller of Newcastle-upon-Tyne, who reported on the care of prematures in the home (Fig 1) [7] Newcastle-upon-Tyne is an industrial city of 265,000 inhabitants in the north of England Housing conditions there are very bad Dr Miller writes that, even before the war, Newcastle achieved the unenviable distinction of being one of the most over-crowded areas in England and Wales Since then, the housing situation has become worse Because hospital facilities are inadequate to take care of the more than 300 prematures born each year, a home service has been organized Specially trained "premature nurses" are provided to visit the homes on request and to give instructions to the mother Necessary equipment is sent out in a hospital ambulance One nurse can take care of three babies in this

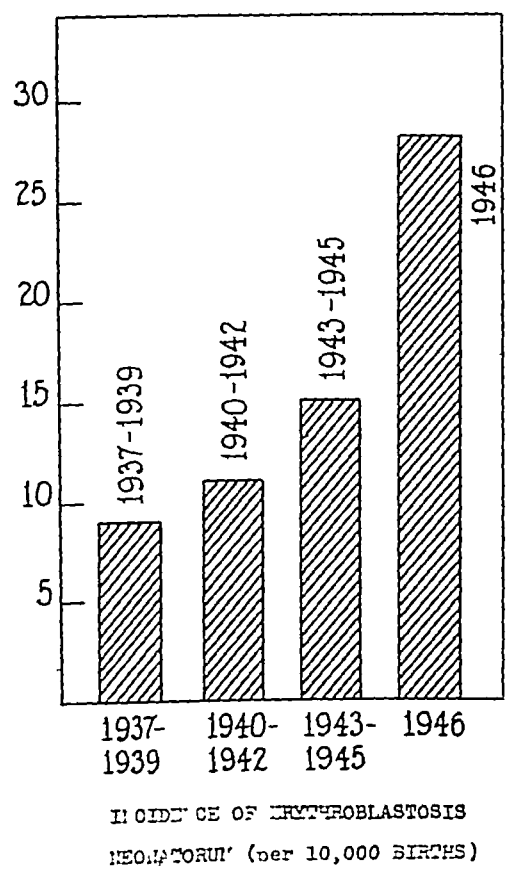


FIG 2 The incidence of erythroblastosis neonatorum at the Johns Hopkins Hospital, calculated from the data of Hallman and Vosburgh [8]

way She acts as friend, helper, and teacher At present, no charge is made for this service

The number of cases taken care of in this way is, as yet, small However, of 82 babies weighing between 3½ and 4½ pounds, 75, or over 90 per cent, survived, as did all 44 babies weighing between 4½ and 5½ pounds Thirteen out of 25 babies weighing between 2½ and 3½ pounds survived Eight babies weighing less than 2½ pounds died The study is being continued, and there will soon be enough cases for a more accurate evaluation of this system of premature care

At present, the cost of private care for a premature in a hospital is well-nigh prohibitive Moreover, there are other disadvantages to the hospital care of the premature The possibility of estrangement between mother and baby, owing to their separation in the obstetric hospital, is greatly increased when the baby is premature and consequently remains in the hospital for weeks, sometimes months, after birth When the baby finally does come home, the mother, imbued with the notion of the baby's fragile state, is often afraid to handle him as freely as is necessary

Miller's study indicates that the indiscriminate hospitalization of prematures weighing 3½ pounds or over is unnecessary We need further studies on the indications for hospital care of prematures and on the best methods to use in the home

Transfusions

For the past twenty-five years blood transfusions have been used freely in babies They have been used in the treatment of infants with severe diarrhea, in undernourished infants, in infants with moderate degrees of anemia, in infants with bronchopneumonia Before the discovery of vitamin K, intramuscular blood injections were often given to newborns after difficult delivery to supply prothrombin and thereby lessen the tendency to bleed Intramuscular blood was also used as a prophylactic against measles before immune serums were developed The general attitude toward transfusion was that, if the bloods of donor and recipient were properly matched, it could do no harm Of course, even with careful checking, occasional fatal transfusion reactions resulted

There is ample evidence to show that many of the transfusions, which were given so blithely in years gone by, did do harm Transfusion of women who are Rh negative with blood which is Rh positive sensitizes them so that their Rh positive offspring suffer from erythroblastotic anemia of the newborn How important a factor sensitization by transfusion is in the incidence of this very serious disease was brought out by a recent report by Hellman and Vosburgh [8] They found that the incidence of erythroblastotic anemia of the newborn at the Johns Hopkins Hospital rose from 9 per 10,000 in 1937 to 1939 to 29 per 10,000 in 1946 (Fig 2) At the same time transfusions increased from 1,100 in 1939 to 5,585 in 1946, a fivefold increase

Between 1937 and 1946, inclusive, there were 27 cases of erythroblastotic anemia Seven of the mothers, approximately one fourth, gave a history of transfusion. One of these, a woman of twenty-one, had received a transfusion when she was two months old Two more women had received transfusions and developed antibodies, but their children were, fortunately, Rh negative and hence escaped These nine women had had five normal children prior to their transfusions but only two normal infants afterwards

That transfusion and intramuscular injection of blood may sensitize a woman who is Rh negative and thus render her incapable of bearing normal children who are Rh positive has been known for some time The important feature of Hellman and Vosburgh's study is the demonstration of the frequency with which transfusion of the mother may be an etiologic factor

The induction of sensitivity in an Rh negative mother is not the only harm which may result from transfusion Karelitz, Bass, and Moloshok recently reported an unusual outbreak of acute fulminating hepatitis resulting in death, with acute yellow atrophy of the liver in four babies and active hepatitis in two more [9] Five of these children had received plasma, the sixth an exchange transfusion These important observations point up another hazard in the use of transfusion At present, it is the greatest hazard, since there is no known way of preventing the jaundice transmitted in this way

Psychologic Care

Pediatric practice is in a transitional stage We are passing from the rigid prescriptions and exact formulations of yesterday to a keener appreciation of human variability and a better understanding of the need for individualization in child care This change in attitude is more revolutionary and more far-reaching than the discovery of the chemotherapeutic agents and antibiotics In some respects the present trend has not gone far enough It is not surprising that, in other respects, it has gone too far

You will recall that, until recently, we told mothers not only exactly what to feed their babies and how much and when, but how much sleep they were to have, what the temperature of the nursery should be, what days they were to be

...ken out, etc. The aim of the child psychologist was to "adjust" children to a preconceived standard. To some extent this sort of spoon-feeding continues, principally because most parents like to have specific directions, but also perhaps, because the implication of modern pediatrics has not been stated with sufficient clearness. The modern concept of child care is, as I see it, that the parent and not the physician is responsible for the child's welfare. Each child must be recognized as an individual, differing from every other child that ever was born or will be born. The parents will know their child better than any one else—certainly better than the pediatrician who sees the child once a month or so. The pediatrician gives advice from his knowledge of children in general, the application of knowledge must, in the final analysis, be made by the parent. From the very beginning, the parents must be made to feel that they are the responsible ones and that they cannot shirk their responsibilities to others. This should be made clear to the parents at the first visit in the obstetric hospital and should be repeated again and again.

Advice along these lines need not create anxiety in the parents if we temper our remarks by pointing out that child-rearing is a function for which woman is, by nature, endowed. After all science has come to appreciate that the attitudes and gestures which the mother intuitively uses toward the baby are the ones which are best suited to please and soothe and comfort him.

I mentioned that in certain respects the pendulum has swung too far. A principle of modern pediatrics, which seems to be well established, is that the child's developing potentialities should give the cue for his management, not a preconceived pattern in the mind of the physician or parent.

This principle, of allowing the child's maturing capabilities to be the guide to management, has led in too many instances to a policy of overindulgence. It seems to me that this is a worse error than the old rigidity. Whereas formerly we had too much regulation, now we have too little. To feed a baby whenever he cries—so-called self-demand or self-regulation—is hardly conducive to the management of an orderly household, especially when babies readily adjust to a schedule after the first two or three weeks of life.

To concede to every demand of the child does not lead to the formation of a well-balanced personality. The very freedom which is sought by this overpermissive attitude is lost. The child is expected by the overindulgent parent to define for himself the limits of his freedom, a decision for which he is not ready developmentally and for which he lacks experience. Discipline is just as necessary now as it ever was. We live in a social world. Child-rearing implies among other things training in self-restraint and in appreciation of the rights of others.

Widespread Use of Penicillin

It is hardly necessary to mention how widely penicillin is used for mild infections in children. I am not at all clear on the reasons for this. Penicillin is said to be less toxic than sulfadiazine. This is undoubtedly true in adults, but I doubt whether the same holds for children, especially young ones. One occasionally sees febrile responses and rashes following sulfa therapy, but the physician quickly learns which of his patients show these reactions, and he avoids its use in these. Urinary complications are unusual in children probably because the volume of urine is relatively large.

Sulfadiazine has the great advantage of simplicity of administration and cheapness. In most of the infections for which it is given, its antibacterial effect is on a par with that of penicillin.

The question of expense is one which should not be taken lightly. Medical costs are rising. What with the widespread use of oxygen, parenteral fluids, x-rays, injection therapy, and the high cost of hospital and nursing care and laboratory procedures, the physicians' fees are becoming a minor part of the cost of medical care. Patients will have what they consider proper medical care whether they can pay for it or not. If they haven't the money to pay for it, they will borrow, cheat, lie—finally, they are going to ask the state to pay for it.

There are, without question, indications for the use of penicillin. In the everyday practice of pediatrics however, where minor infections are under consideration, sulfadiazine is the drug of choice.

Overreliance on Hospital Care

Only a few years ago the hospital was reserved for those with serious illness. Things are certainly different now. Children are sent to the hospital on the slightest provocation. Although there are many reasons for this change of attitude, we must bear our share of the blame for this trend. Too often one hears a colleague say, "I would feel better if my patient was in the hospital." Without question it is a great relief to the physician to be able to share responsibility for the care of a sick child with others—there should be fewer "coronaries" among physicians of the future—but often this is not in the best interests of the patient.

Especially is this true of infants. By and large they do badly in hospitals. At home the baby

in the home has a full-time, twenty-four-hour nurse, the mother, to care for him. She understands his wants and his idiosyncrasies and is unsparing in her efforts In the hospital, by contrast, he is cared for by at least three different nurses whose primary interests are usually elsewhere He is exposed to ward infections and to a hospital routine which is new and disturbing Only occasionally do the gadgets available in the hospital compensate for its disadvantages Moreover, most procedures can be carried out in the home A healthy move away from overhospitalization has already begun. At the Montefiore Hospital a program for the home care of patients with cancer is under way and is highly successful

Stated in general terms, we err too often because of our willingness to accept an idea which seems reasonable even though it has not been proved, because we fail to make allowance for human variability, and because of an overwillingness to adopt the complex and expensive when the simple and cheap are as good or better On the other hand, we are unwilling to rely on the adaptability of the human organism with the consequent resort to corrective devices which are often harmful We tend to rush in with therapeutic procedures where knowledge is incomplete We are too prone to adopt the attitude that "this or that procedure can do no harm," and too often we feel that now we have the answer, when all that has been accomplished is to lift a little the veil of ignorance

Summary

I have outlined in this talk some of the more common errors in pediatric ideation and practice as I see them These errors are not isolated ones but are an integral part of every-day practice This is not to imply that I feel that we are not making progress I feel very definitely that we are going forward I have tried, merely, to point out the countercurrents in the onward flow of pediatric knowledge We have it in our power to do much that is good Let us not dilute the benefactions which it is in our power to bestow by practices which may be harmful

Discussion

John D Craig, M.D , *New York City* —I will limit my discussion to those subjects in which I do not agree with Dr Bakwin's views or to those that I feel should be emphasized

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RECENT CONTRIBUTIONS TO THE DIAGNOSIS AND TREATMENT OF PERTUSSIS

WILLIAM L BRADFORD, M D , Rochester, New York

(From the Department of Pediatrics, University of Rochester School of Medicine and Dentistry)

IN THE United States, during the past twenty-five years, we have observed a declining mortality rate in whooping cough This trend, which is shared with certain other infectious diseases, has occurred in urban communities chiefly In spite of this favorable trend, the disease remains one of importance, for the case fatality rate among hospitalized patients under twelve months of age remains between 5 and 10 per cent

The general case fatality rate is about 2 3 per cent, although in certain surveyed areas it has been found to be as low as 0 35 per cent Forty-seven per cent of the 10,730 deaths from whooping cough recorded in the United States (1938 to 1940, inclusive) occurred during the first seven months of life In New York State, pertussis causes about 6 per cent of the infant mortality rate According to Kohn and Fisher, the case fatality for patients ill with whooping cough in the Willard Parker Hospital during the past eight years was equal to, or above, the combined fatality rates of measles, scarlet fever, and diphtheria [1]

The highest death rate now occurs in rural rather than urban populations In such areas Dauer found it to be directly related to poor living conditions, poverty, crowding, and inadequate professional care [2]

In the last fifteen years, considerable advancement has been made in the study of pertussis, resulting from a general renewal of interest in various aspects of the problem Among important contributions may be mentioned the following (1) proof that Hemophilus pertussis alone causes the disease, (2) demonstration that antigenically active strains of the organism are required for the production of effective vaccine, (3) establishment of the disease experimentally, (4) studies of the antigenic structure of the organism, (5) production and use of immune serum for passive prevention and treatment, (6) improvement of culture medium, and (7) improved methods of laboratory diagnosis

Cultural methods are particularly important from the standpoint of the laboratory diagnosis which seems to be an increasingly important practical problem The typical case of pertussis offers little diagnostic difficulty, but the widespread use of vaccine results in a growing number of modified cases when complete protection fails to occur These mild cases often constitute diagnostic difficulties, and they also represent important epidemiologic problems Moreover, other diseases of the respiratory tract—infections of the postnasal region, enlargement of pentracheal lymph nodes, allergic bronchitis, parapertussis, and even infection with Brucella bronchiseptica and Brucella abortus—have been confused clinically with pertussis During the past few years my attention has been attracted to the marked similarity which sometimes exists between the cough of so-called "atypical" pneumonia and that of whooping cough Experienced physicians have come to realize that every patient who whoops does not have whooping cough, and, conversely, that whooping cough may exist without the whoop For this reason the name "pertussis" is preferred to that of "whooping cough" by some physicians

Since 1916, the cough-plate method of Chievitz and Meyer has been used, routinely by some, for the isolation of the causative organism Because of certain difficulties encountered with this method, the nasal-swab method was introduced in 1940 In our hands, as well as in the hands of others, this method has represented a distinct improvement over the cough-plate method, especially in infants [3]

Some workers have advocated the use of agglutination and complement fixation tests to measure the level of humoral immunity, while others believe that the mouse-protective test is superior It seems probable that an agglutinative titer of 1 320 or higher is indicative of resistance to infection However, it is also clear to those who are experienced observers that certain individuals who possess a lower titer, or even none at all, are immune The recent demonstration by Keogh and his coworkers in Australia, that freshly isolated strains of H pertussis possess hemagglutinins for the red blood cells of man and certain other species and that a specific inhibitory antibody against this reaction can be demonstrated in the serum of immune persons, suggests another, perhaps a sharper method, of distinguishing the susceptibles from the immune [4] No doubt, you have anticipated the development of a simple skin test, similar to the Schick reaction which would be made available

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in the home has a full-time, twenty-four-hour nurse, the mother, to care for him. She understands his wants and his idiosyncrasies and is unsparing in her efforts. In the hospital, by contrast, he is cared for by at least three different nurses whose primary interests are usually elsewhere. He is exposed to ward infections and to a hospital routine which is new and disturbing. Only occasionally do the gadgets available in the hospital compensate for its disadvantages. Moreover, most procedures can be carried out in the home. A healthy move away from overhospitalization has already begun. At the Montefiore Hospital a program for the home care of patients with cancer is under way and is highly successful.

Stated in general terms, we err too often because of our willingness to accept an idea which seems reasonable even though it has not been proved, because we fail to make allowance for human variability, and because of an overwillingness to adopt the complex and expensive when the simple and cheap are as good or better. On the other hand, we are unwilling to rely on the adaptability of the human organism with the consequent resort to corrective devices which are often harmful. We tend to rush in with therapeutic procedures where knowledge is incomplete. We are too prone to adopt the attitude that "this or that procedure can do no harm," and too often we feel that now we have the answer, when all that has been accomplished is to lift a little the veil of ignorance.

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I have outlined in this talk some of the more common errors in pediatric ideation and practice as I see them. These errors are not isolated ones but are an integral part of every-day practice. This is not to imply that I feel that we are not making progress. I feel very definitely that we are going forward. I have tried, merely, to point out the countercurrents in the onward flow of pediatric knowledge. We have it in our power to do much that is good. Let us not dilute the benefactions which it is in our power to bestow by practices which may be harmful.

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Rooming-In.—Some great need at the time, whether good or bad, created the change from home delivery to hospital delivery. The present trend to the rooming-in system requires expensive structural changes in existing hospitals. Would it not be better to encourage the liberalization of rules and regulations pertaining to the visits between mother and baby, in order that they may be carried out within the structural setups we have? When the baby goes home, usually within a few days, he will have to fit into the available space, i.e., if there is a spare room he will be put there, and, if not, he will be put with the other children or the parents.

Premature babies.—We do keep healthy small babies in the hospital too long. In Dr. Hess's premature center in Chicago he allows them to go home at 4½ pounds. In New York City the Board of Health suggests that they be kept until weighing 5½ pounds. As a first step could we not at least ease this back to 5 pounds for those who are doing well?

Penicillin and Sulfa Therapy.—Even too much sulfa is prescribed where there are no definite clinical indications, especially in the simple, upper respiratory infections. Any number of times a mother has told me that after a moderate fever her child has been cured by two doses of sulfa. This is, of course, not true. It might be better to stick to your aspirin at the same time, leave a prescription for your favorite sulfa drug to be started, either by telephone or when you re-examine the child.

Overreliance on Hospital Care.—I have always thought it was far easier for a doctor to practice in an urban community than in the country. If he is rushed or does not wish to take the time to observe the patient until hospitalization is indicated and explain same to the parents, he is prone to hospitalize the patient and let the resident work the case up for him. The country doctor is on his own. Unless hospitalization is clearly indicated, it would be better to wait before you consider it. Ask yourself, is it really necessary?

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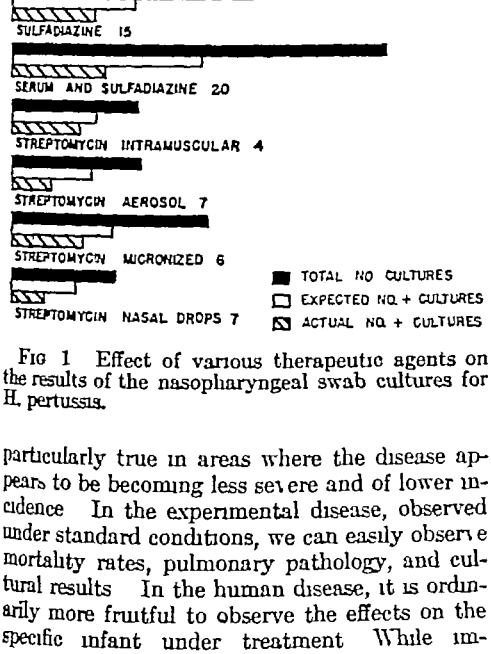


FIG 1 Effect of various therapeutic agents on the results of the nasopharyngeal swab cultures for H. pertussis.

particularly true in areas where the disease appears to be becoming less severe and of lower incidence In the experimental disease, observed under standard conditions, we can easily observe mortality rates, pulmonary pathology, and cultural results In the human disease, it is ordinarily more fruitful to observe the effects on the specific infant under treatment While improvement of clinical symptoms, such as lessening of the cough and decrease in vomiting, usually result from effective therapy, these are variable symptoms, and their evaluation introduces the factor of clinical impressions

It is, therefore, useful to observe the effect of a therapeutic agent on such objective criteria as the disappearance of the causative organism from the respiratory tract, the trend of number of leukocytes, and the prevention of hilar lesions, as shown by the x-ray The results of

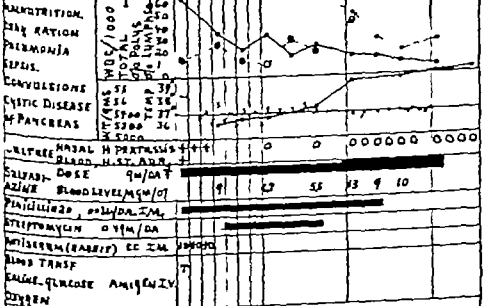


FIG 2 Influence of various therapeutic procedures on the course of severe pertussis.

some of our observations in respect to the f two criteria are illustrated in Figs 1 and 2

Summary

Relatively recent studies in pertussis have in cated the following

1 The necessity of the use of cultural meth to supplement clinical diagnosis The nasal c ture method which is superior for this purp should be more widely applied Bacteriolo diagnosis is particularly important when spec preventive and therapeutic agents are be tested

2 General therapeutic measures for seriou ill patients should include adequate professio care, the maintenance of proper nutrition, a the administration of oxygen.

3 Immune serum of high antibacterial tit either human or rabbit, is indicated There evidence that antitoxin serum is also of the peutic value, as is also sulfadiazine Prelimin studies suggest that streptomycin may be the peutically effective, particularly as a supplem to other agents

Discussion

Jerome L Kohn, M D, *New York City*—Fr our experience at the Willard Parker Hospital, per cent mortality rate for infants under one y is excellent There are children in whom th has been such extensive damage to the nervous s tem before admission that survival is impossib In others there is almost complete consolidation a atelectasis of the lungs

There is no question that the nasopharyng culture is far superior to any other culture meth in use H pertussis is a very fickle bacteriu The bacteriologist must be specially trained. Wh we had a change of bacteriologists, the percenta of positive cultures dropped appreciably for se eral months

When considering the differential diagnosis, wish to add, to the list given by Dr Bradford, infa tuberculosis and cystic pancreatic fibrosis have had a number of children with these con tions in the last year The cough simulates that whooping cough

In our experience the Strean skin test was not much value The Flosdorf agglutination test w much more useful. Flosdorf suggested that t test be read within twenty-four hours, but we ha found it best to reread it after forty-eight a seventy-two hours This avoided many false po tives The test was often negative in young i fants, but in children over one year it was positi in 88 per cent of the patients tested The test b came positive about three weeks after the onset cough In a number of instances in which t nasopharyngeal cultures were positive the sk test was negative There were very few false po tives We occasionally obtained negative sk tests in the ward personnel.

for this purpose Considerable effort has been directed to this end Two materials that have resulted from recent studies on the antigenic structure of H pertussis are the agglutinogen and the heat labile toxin In the hands of certain investigators, particularly Flosdorf and Strean, these substances, when used as skin-testing materials, have given interesting if not promising results [5 6] It is interesting that the agglutinogen gives a positive reaction when immunity is present, while the toxin, like the Schick test, is positive when susceptibility exists It appears now from recently reported experiences that the agglutinogen is the more valuable of these two skin-testing materials

In recent years, my associates and I have been interested in applying methods of passive protection to the very young infant who is either exposed or who is in the early period of the disease It was observed that convalescent and adult immune serum had occasionally been used for this purpose In 1936, Kendrick introduced hyperimmune human serum This work was actively extended by McGuinness and his associates, and its superiority over ordinary convalescent serum soon became apparent Laboratory tests revealed the high protective value of hyperimmune serum against the experimental disease in mice When this serum was injected into an infant during the catarrhal period of whooping cough, antibody values of the infant's serum comparable to those existing during convalescence were regularly observed This type of serum has proved effective in the prevention and modification of the disease

In 1939, it seemed practical to attempt the production of an immune rabbit serum This was originally prepared by injecting rabbits with suspensions of living, freshly isolated H pertussis The antiserum which resulted possessed high agglutinin and mouse-protective titers but very little antitoxin The globulin fraction prepared from this antiserum contained practically all of the antibody of the original serum and, when restored to the original volume, was as equally protective as was the original antiserum This antibacterial serum and a similar one prepared by Silverthorne and Brown have proved to be definitely effective in preventing the disease in exposed infants [7] Two other interesting types of antisera have since been introduced an antitoxin prepared by injecting rabbits with the toxic material obtained from the organism, and a combined antibacterial and antitoxic serum prepared by injecting the animal with both organism and its toxin. The antitoxin in high dilution neutralized the toxin, possessed a low agglutinative titer, but protected mice against the experimental disease resulting from either the intranasal or intra-abdominal route of inoculation The observations of Dr Katsampes, in our laboratory, indicate that the antitoxin also inhibits the development of hyperlymphocytosis, which characterizes both the murine and human type of infection Studies now in progress suggest that certain fractions prepared from hyperimmune human serum and whole blood plasma are also highly protective

In addition to the usual accepted methods of symptomatic treatments, such as the use of oxygen and adequate nursing care, it appears certain that sulfadiazine, penicillin (for control of secondary invading organisms), and the various types of immune serums are indicated Preliminary studies suggest that Aerosporin and Polymyxin may possess interesting therapeutic possibilities [8 9]

Since the organism is sensitive to streptomycin in concentration of from 1 to 3 micrograms per ml of medium, this agent has also been carefully tested against the experimental as well as the human disease [10] Although it is clearly effective in the treatment of experimental murine disease, definite conclusions cannot yet be drawn in regard to its value against the human infection

Treatment

When one considers therapy in whooping cough, one must keep in mind not only the fatality risk but serious sequelae, such as those of the cerebral and pulmonary type That seriously ill infants are best treated in properly equipped hospitals is readily admitted The findings of Dauer adequately support this opinion

The generally recognized essential requirements for the adequate care of an infant suffering from pertussis have been summarized in the recent paper by Kohn and Fisher [1] They are as follows

"1 An experienced medical and nursing personnel
2 The use of oxygen
3 Aspiration of the upper respiratory tract
4 Chemotherapy
5 Hydration and the use of parenteral therapy
6 Special feeding technic.
7 The use of hyperimmune and rabbit serums"

For more than a decade, we have been interested in testing the therapeutic value of various agents against the experimental murine disease When these agents proved protective, they were tried in the treatment of the disease in infants

As is well known, it is often difficult to assess the therapeutic value of an agent in a disease as variable in its clinical course as pertussis This is

NEW DEVELOPMENTS IN BCG VACCINATION

KONRAD E BIRKHAUG, M D , Albany, New York

(From the Division of Laboratories and Research, New York State Department of Health)

EXPERIMENTAL studies and clinical experience prove that a spontaneous primary infection with tubercle bacilli which renders the organism hypersensitive to tuberculin confers an incomplete but relatively significant resistance against a subsequent tuberculous infection and that the first victims of tuberculous disease are tuberculin-negative individuals who have escaped a spontaneous and nonprogressive primary tuberculous infection

A direct result of the modern trend to defer the primary tuberculous infection from childhood to adult life is an increasing susceptibility among tuberculin-negative individuals of early adult age to contract a serious clinical tuberculosis when they are intimately exposed to infection with tubercle bacilli This modern trend in the epidemiology of tuberculosis has brought about a reorientation toward the use of artificial immunization against tuberculosis by means of killed or attenuated living tubercle bacilli So far, only the avirulent and living BCG (Bacille Calmette-Guérin) vaccine has regularly produced hypersensitiveness to tuberculin and an incomplete but significant protection against tuberculosis The vaccine has been used in some ten millions of people during the past twenty years It is unrealistic, therefore, to claim that BCG vaccination is still in the experimental stage Nevertheless, there exists a lamentable lack of unassailable statistical proof of the effectiveness of BCG under rigidly controlled conditions in man, although such evidence is highly suggestive in animal experimentation Unanimity obtains, however, as to its harmlessness and near unanimity in regard to its almost complete protection against the clinical manifestations of postprimary tuberculosis in children and adolescents and an incomplete but highly significant protection against clinical pulmonary tuberculosis in adults

In a refreshingly critical article, Professor G S Wilson contends that the documentary evidence in favor of BCG vaccination is insufficient to prove conclusively that this mode of artificial immunization has any protective effect at all, at least in a civilized population like that of Great Britain [1] The past twenty years of uninterrupted BCG vaccination on more than one million persons in Scandinavia, which the author reviewed last year, provides the other side of the picture [2] Professor Arvid Wallgren of Stockholm, whose experience with BCG vaccination in children has placed him in the forefront of specialists on this subject, remarked recently that the vaccine has been so successful in Sweden that it would now be impossible to provide two identical groups of vaccinated persons and unvaccinated controls, because the physicians would regard it as unjustifiable to take the risk of leaving a control group unvaccinated merely to satisfy statisticians [3] He even goes so far as to counter Professor Wilson with the statement that no follow-up study of BCG vaccinated persons has so far been reported in which the vaccine has proved entirely ineffective, and this includes the New York City records of Levine and Sackett [4 5] Wallgren offers the opinion that countries which have adopted BCG vaccination are satisfied as to its value and they are not likely to abandon it until a more efficient prophylactic method is introduced He does not hesitate to advise his colleagues in countries which look on BCG vaccination with suspicion "Give BCG vaccination a fair trial, and you will be convinced of its effectiveness"

The country which is making the most energetic attack on tuberculosis is Norway, although her present tuberculosis mortality rate is less than 50 deaths per 100,000 population Norway has already enacted laws for the obligatory tuberculin testing of the entire school population, obligatory miniature chest radiographic examination of the entire population, and obligatory control of all open cases of tuberculosis On December 8, 1947, the Norwegian parliament passed a new law for the compulsory tuberculin testing and BCG vaccination of certain groups of persons. In discussing this law, the *Lancet* makes the following statement

> this radical measure encountered hardly any opposition, because in the past twenty years tens of thousands of people (in a nation numbering only three million) had had direct experience of BCG, because the doctors, tuberculosis specialists in particular, were in favour of it, and because the Norwegian department for social affairs (corresponding in some respects to our Ministry of Health) had prepared a comprehensive memorandum as a guide to the legislators This memorandum recalled that in March, 1946, the head of the Norwegian army medical service pointed out that

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Of all the means at our disposal for the treatment of whooping cough, we believe that the use of oxygen is the most effective agent It is of value in infants with extensive pulmonic involvement and also in children who have severe frequent exhausting paroxysms without extensive pulmonary involvement. It is of great value also in children who are having frequent convulsions Human hyperimmune serum, we felt, was of great value in the treatment of severe whooping cough However, it had no effect on the finding of H pertussis in the nasopharynx

Up to the present, streptomycin has been administered to about 160 patients at the Willard Parker Hospital The initial plan was to rotate the method of administration, by (1) intranasal drops, (2) aerosol, (3) intramuscular injection, and (4) no streptomycin In the dosage used by us we felt that the intranasal method had very little therapeutic value The aerosol and intramuscular injection, on the other hand, seemed to have some therapeutic value In severely ill children we were forced to break this pattern and administer streptomycin by aerosol and intramuscular injection In a few patients human hyperimmune serum was also given For some complications sulfonamides and penicillin were used

Last winter we gave much larger doses and in the infants combined the aerosol and intramuscular injections In the older children we used aerosol alone, and, whenever possible, the nebulizer was put directly into the child's mouth With the above technic we feel that we have influenced the course of the whooping cough In a number of instances we have been able to have controls in members of several families In the treated child the paroxysms often became decidedly less prolonged and less frequent within three days There was no improvement in the condition of the child serving as a control until treatment was begun several days later

When the smaller dosage of streptomycin was used, there seemed to be little effect on the nasopharyngeal cultures However, in the group treated this winter we have gotten many more negative cultures after completion of treatment

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OVERWEIGHT INCREASES INCIDENCE OF DISEASE

Overweight is a serious menace to health because it appears to increase the incidence of many diseases, according to three Rochester, Minnesota, researchers

Writing in the January 8 issue of the *Journal of the American Medical Association*, Clifford F Gastineau, M D , of the Mayo Foundation, and Edward H. Rynearson, M.D , and Alice Karslake Irmisch, M S , of the Mayo Clinic, say that between the ages of 45 and 50 years, 25 pounds of excess weight results in an increase of 25 per cent in mortality

"Greater degrees of overweight are a correspondingly greater hazard to life and health," they point out. "Overweight has been found to be associated with an increased incidence of high blood pressure, diabetes, cancer, heart disease, kidney disease, hardening of the arteries, liver disease, and varicose veins"

Emotions, training and habit "exert a considerable influence" in determining whether people overeat or undereat, they say, adding "Investigations of the lean and fat by a number of psychiatrists have suggested a strikingly high incidence of psychologic aberrations The apparently increased incidence of neuroses in association with obesity or leanness may be open to some question, since most such investigations have not included psychiatric studies of persons of normal weight for control purposes.

"Glandular disorders are rarely a cause of either pronounced obesity or leanness. It is difficult to hazard a guess whether inheritance or environment exerts the greater influence on eating habits. If mother prides herself on setting a good table, if dad eats heartily and with obvious enjoyment, if the household attitude and feeling is that good food in generous quantities is the end and purpose of life, it is not surprising that an entire family may become obese without the mediation of heredity Imitation of elders and attitudes acquired in childhood may govern eating habits in later life"

In general, the best way to get rid of excess weight is to eat less, the researchers indicate Several medicines which have been used for reducing accomplish little, and massage, local applications of heat, and exercise have no effect on local deposits of fat they say

Among the controls, 53 died from tuberculosis—a rate of 3 5 per 1,000 person-years, 56 died from other causes—a rate of 3 7 per 1,000 person-years" And Aronson concludes that "This controlled study indicates that the use of BCG vaccine is a safe and practical procedure and that it has significantly reduced the mortality from tuberculosis in a highly infected population during the nine to eleven year period of observation "[10]

The most extensive and carefully controlled BCG study in infants is that of Rosenthal and coworkers in Chicago, among a low-income group in which there was a relatively high degree of exposure to tuberculosis [11] The infants were largely those delivered at the Cook County Hospital, and the multiple puncture method of vaccination was employed during the first few days of life If there was a case of open tuberculosis in another member of the child's household, the infant was isolated at the hospital for six to twelve weeks before being returned home Infants in the control group series, subject to such exposure, were similarly isolated The results of the first seven years observation were reported in 1945 and brought up to date in January this year Of the children not directly exposed to tuberculosis in the household, 11 cases of demonstrable tuberculosis occurred in 1,417 vaccinated in comparison with 39 cases among the 1,414 controls There was one death from tuberculosis in the vaccinated groups and seven deaths in the control groups Of children directly exposed to tuberculosis in their households there were two cases, with no deaths in 151 vaccinated in comparison with five cases and four deaths in 105 controls, giving morbidity rates of 3 86 per 1,000 person-years in the vaccinated and 17 60 in the controls As the control groups in this study were adequately followed up and equalized with the vaccinated groups, in every possible respect, the figures must be regarded as highly significant

These observations and the result of vaccination under war conditions in Scandinavian countries produced a most favorable impression in this country Professor Kai Jensen, of Copenhagen, visited in New York in the spring of 1946, and his records were thoroughly discussed by the staff of the State Department of Health In July the Division of Laboratories and Research was authorized to undertake the preparation of vaccine and in October, I joined the Division and organized a laboratory for that purpose Dr Edward S Godfrey, Jr, then New York State Commissioner of Health, held a conference the same month in which the Department's program was formulated The Department's judgment proved to be quite similar to that of the conference held in Washington the previous month under the auspices of the United States Public Health Service The conference recommended extensive study before general use or commercial manufacture The federal and New York programs are quite similar and should helpfully supplement each other Since the federal program had been planned by Dr Herman E Hilleboe, then Assistant Surgeon General and now New York State Commissioner of Health, the further correlation of the two studies is assured

On January 8, 1947, the Subcommittee on Child Welfare of the Medical Society of the State of New York discussed the use of the BCG vaccine in New York State as a part of the Tuberculosis Control Program This Committee was of the opinion that an educational program should be inaugurated to inform the medical profession of this State about BCG immunization.

The Committee on Public Health and Education, with the Committee on Child Welfare, and representatives of the New York State Department of Health, met with representatives of the nine medical schools of New York State in New York City on February 12, 1947 After a thorough discussion of BCG immunization, it was recommended that an advisory committee be appointed by the New York State Department of Health and the State Medical Society to work out a plan whereby instruction would be available for those who are to be in charge of BCG immunization programs, as well as for county medical societies, hospital staffs, and other medical groups

On March 12, 1947, the BCG Advisory Committee held its first meeting in New York City Preliminary plans were drawn up for the distribution and use of the vaccine It was decided that, for the present, only a limited number of physicians should be allowed to use the vaccine and only in selected groups of tuberculin-negative persons who work or reside in an environment where they are intimately exposed to tuberculous infection, such as nurses, medical students, hospital and sanatoria personnel, etc

Since the first Washington conference on BCG vaccination in September, 1946, the interest in immunization against tuberculosis had steadily grown "So great, indeed, had been the demand from every quarter," according to Francis J Weber, Medical Director, Chief, Tuberculosis Control Division of the United States Public Health Service, "for additional information concerning the course of BCG investigations that an evaluation and review of recent work in the field had become increasingly appropriate To that end, a second conference convened in New York City on March 9 1948," which was attended by a

about half the men called to the colours were tuberculin-negative, and that B C G immunisation could not be satisfactorily achieved on a purely voluntary basis In the following September a committee of experts reported that compulsory B C G immunisation was desirable (1) for all persons in a tuberculous environment, (2) for doctors, nurses, hospital workers, and other groups with a high tuberculosis morbidity, (3) for men liable for military service, and (4) for youngsters at the school-leaving age, students and others Soon afterwards the Norwegian Tuberculosis Doctors' Association unanimously passed a resolution in its favour

In a commentary on the various paragraphs of the Bill now enacted the department for social affairs says that, though in the world at large the number of persons inoculated against tuberculosis now runs into millions, no case of tuberculosis has so far been traced to B C G The Oslo public-health service has found that the positive tuberculin reaction achieved with B C G immunisation is nearly always present five to six years later On the west coast of Norway, where opposition to vaccination against smallpox is common, there is no such opposition to vaccination against tuberculosis In several towns where B C G vaccination has been provided for those of school-leaving age, the percentage voluntarily accepting the offer has ranged from 50 to 90 It is calculated that if no compulsion is used the immunisation of all who need it will take too long, but on the other hand compulsory immunisation must be confined at present to the groups requiring it most, for the people who can undertake it are not unlimited [6]

A noticeable change in favor of BCG vaccination is taking place in Soviet Russia, where every infant is being immunized at birth, in South America, Mexico, Australia, New Zealand, Japan, China, India, and the Near East, where extensive immunization programs are being planned The most gigantic BCG program is being carried out today by the World Health Organization in war-stricken countries of Europe, under the auspices of the Danish Red Cross, with the active support of the Danish Public Health Service and of the State Serum Institute in Copenhagen The sum of nearly one million dollars has been earmarked by the Danish Red Cross and two million dollars by the World Health Organization for BCG vaccination in Poland, Jugoslavia, Hungary, Austria, and the American and British zones in Germany About sixty doctors trained in BCG vaccination and twice that number of nurses are planning to test about 50 million persons with tuberculin and to vaccinate about 15 million tuberculin-negative persons during 1948 and 1949 Three aeroplanes have been purchased for the supply of fresh vaccine at short intervals to the various centers in which the teams happen to be working Since practically everyone over twenty-five years of age in these countries is tuberculin-positive, BCG vaccination becomes limited to persons under that age [7]

New Developments in BCG Vaccination in America

What then is the American attitude toward BCG vaccination today? The need for adequately controlled BCG studies in man has been fully appreciated in this country Fortunately, a few such long-term, controlled investigations have now progressed to a point which permits some definite conclusions to be drawn

Baudouin reported a study based on BCG vaccination of more than 20,000 infants in Canada [8] Restricting his report to children who were exposed to open cases of tuberculosis in their homes, he found that the morbidity from tuberculosis in 793 vaccinated cases was about 70 per cent less and the mortality 47 per cent less than in 1,239 controls In his series the resistance seemed to be maintained throughout the period of seven years observation

Aronson and Palmer reported an extensive BCG study in Indians from one to twenty years of age living on four reservations in the United States and in twelve communities in Alaska [9] The economic level of the group was low, and there was a high degree of exposure to tuberculosis There were 1,550 vaccinated individuals and a satisfactory control group of 1,457 with negative tuberculin reactions who were not vaccinated These were followed for six years or more by means of repeated physical examinations, chest x-rays, and tuberculin tests The tuberculosis mortality rate was four among the vaccinated, all starting during the first two years after vaccination, as compared with 28 among the controls, which were fairly evenly distributed over the six-year observation period. The number of manifest tuberculous was 40 among the vaccinated, or 4.7 per 1,000 person-years, and 185, or 24 3 per 1,000 person-years in the controls The latter were evenly distributed over the six-year period, but the rate among the vaccinated fell progressively from 11 8 during the first year to less than 1 per 1,000 person-years during the sixth year This suggested that the degree of protection increased rather than decreased during this period under the conditions obtaining in this group As late as May 16, 1948, Aronson reported before the Fourth International Congresses on Tropical Medicine in Washington, D C, that the vaccinated group has now been "observed for a total of 16,406 person-years, the control group for a total of 15,207 person-years During this time six persons among the vaccinated died from tuberculosis, a rate of 0 4 per 1,000 person-years. Deaths from other causes were 49—a rate of 3 0 per 1,000 person-years

it is recommended that the intracutaneous method be used. Comparable doses of O T for the two-test procedure are 0 01 mg O T for the first test dose and 0 1 mg for the second dose When a single test of O T is used, the dosage recommended is 0 1 mg of O T Interpretations should be made in the same manner as with P P D

2 Take chest x-ray of the non-reactors before vaccination, whenever practicable

3 Give BCG vaccine only to non-reactors Vaccination should be performed within two weeks of the tuberculin test

4. Test vaccinated group with tuberculin eight to ten weeks after vaccination If P P D was used before vaccination, use 0 0002 mg P P D for this retesting If O T was used before vaccination, use 0 1 mg O T for the retesting

5 Revaccinate those previously vaccinated who remain non-reactors to tuberculin upon retesting

6 Whenever possible, all persons comprising the initial group, including the initial prevaccination reactors as well as the initial non-reactors should be observed for as long a period of time as possible, and preferably for at least five to ten years, with semiannual chest x-ray examinations and annual tuberculin tests By repeating tuberculin tests at yearly intervals, those who revert from positive to negative can be identified

7 Revaccinate those reverting to tuberculin-negative status following vaccination

Consultation and advisory service by the State Department of Health, including assistance in planning a local program, will be available and may be requested at any time Arrangements may be made for instruction and demonstration in vaccination procedures Requests for such service or information should be made to the Division of Tuberculosis Control, 28 Howard Street, Albany 7, New York

It should be noted that the BCG program for the State of New York makes no provision for a control nonvaccinated group The Division of Tuberculosis Control is planning, however, a systematic, annual follow-up examination of the vaccinated persons with tuberculin tests and chest x rays, for the purpose of evaluating the influence of BCG immunization on tuberculosis morbidity and mortality rates in groups of intimately exposed persons

BCG vaccination of tuberculin negative nurses and medical students is now a regular practice in seven of the State's nine medical schools A dozen nurses' training schools and teaching hospitals as well as several tuberculosis hospitals and clinics have likewise entered upon the systematic BCG immunization of tuberculin negative nurses, doctors, and employees Vaccination programs have also been launched in some of the State's mental hospitals and plans are being formulated for BCG immunization work among the tuberculin-negative population in Harlem where the current tuberculosis mortality rate is more than eight times that among the white population in New York City

The New York State BCG Program may seem a very modest endeavor in comparison with the extensive vaccination work carried out in the Scandinavian countries and more so in view of the gigantic immunization program, entered upon by the World Health Organization, of more than one million vaccinations per month in Poland, Jugoslavia, Hungary, Austria, and the American and British zones in Germany However, if the preliminary conclusions of the BCG Advisory Committee for the State of New York become confirmed by the work now in progress, we may hope that the vaccine will soon be available for use on a more extensive scale

Conclusion

The New York State Department of Health and the Medical Society of the State of New York recommend that BCG immunization be used extensively in tuberculin negative reactors in groups of occupationally exposed persons, such as nurses, medical students, and hospital personnel, in population groups with high tuberculosis morbidity and mortality, and where there has been a known exposure to tuberculosis or where an exposure is likely to occur, as in the households of patients returning home from hospitals or sanatoria For the present, the vaccine will not be distributed generally

Discussion

Arthur B Robins, M D, *New York City*—I shall confine my discussion to three aspects of the subject presented which are of special public health significance at this time, case-finding, BCG, and streptomycin

One plan for tuberculosis case-finding currently proposed is the community-wide survey as demonstrated so brilliantly by the United States Public Health Service in Milwaukee, Minneapolis, St Paul, and now in Washington, D C This is not feasible in New York City at this time There are more than 6,000,000 individuals over fifteen years of age in this City Even if we assume that 100,000 persons can be x-rayed by each survey unit annually a minimum of 60 such units would be required to cover the adult population in New York City in the course of a year In our experience, approximately 5 per cent of those x-rayed require further study This would call for the re-examination of over 300,000 persons If the tuberculosis prevalence rate of 2 per cent found in the 160,000 x-ray examinations done in 1947 is applied to the entire adult population, continued supervision would be required for at least 100 000 cases of tuberculosis This exceeds the total number of individuals examined in our chest clinics last year The usual finding of only one to two active cases of pulmonary tuberculosis in each

larger group of specialists than had met in 1946 to formulate the original policy [12] The majority of the Conference favored the use of BCG among restricted categories of people which permitted long-term follow-up studies to determine the best methods of administering the vaccine, the duration of tuberculin hypersensitiveness produced by vaccination, and the protective value against tuberculous disease In order to obtain more accurate knowledge than is now available concerning the vaccine, the Conference felt that the Public Health Service should assist State, local, and other official agencies with vaccination centers necessary for this activity and should also make provision for the eventual participation of the private physician Such selective vaccination programs should be promoted among contacts of open cases, medical and nursing personnel, hospital, sanatorium, and laboratory employes, inmates of penal and mental institutions The Conference also recommended the development of controlled BCG studies with State, territorial, and local health agencies, in good-sized population groups where the prevalence of tuberculosis is great, such as in the North American Indian population, parts of Alaska, Puerto Rico, Hawaii, and the Philippines, and segments of our great cities Finally, it was also recommended to assist State and local health departments in the development of large-scale trial of the value of BCG vaccination in the general population in a number of metropolitan areas and, whenever possible, in conjunction with community x-ray surveys These recommendations mark a definite advance from the position taken by the first Washington conference This wider application of vaccination represents a compromise between the two extreme trends of thought expressed by minority groups, favoring either a general use of BCG in the United States or no use of the vaccine except in controlled research studies

By April 26, 1948, the BCG program for the State of New York had advanced to the stage of official rules being promulgated by the Commissioner of Health, Dr Herman E Hilleboe, pursuant to Article XVI, Section 311-a of the Public Health Law, on "Vaccine and Vaccination against Tuberculosis" [13] This was followed by the issuance on May 7, 1948, of a booklet, *BCG Vaccination*, by New York State Department of Health and the Medical Society of the State of New York This publication sets forth the official BCG vaccination program for the State The first part of the booklet deals with the administrative aspects of the program, and the second part is a technical guide for physicians

The opening paragraph reads as follows

> BCG vaccination is one of the known methods of reducing morbidity and mortality from tuberculosis, and at present is the only known practical method of inducing specific resistance to tuberculosis There is general agreement on two points (*a*) it is safe, (*b*) it serves to convert non-reactors to tuberculin to reactors through infection with avirulent and *benign bovine* tubercle bacilli There is sufficient evidence of the effectiveness of BCG to warrant its use in selected population groups in which the infection rate is high Persons who do not react to tuberculin in such groups might otherwise be first infected with virulent organisms BCG vaccine is not to be administered indiscriminately, because it can be of benefit only to those persons who have NOT been infected by the tubercle bacillus It must be emphasized that BCG vaccine has NO value in the treatment of tuberculous disease

The vaccine is recommended for use in selected groups as follows

> Tuberculin negative persons (*a*) in groups occupationally exposed, such as nurses, medical students and hospital personnel, (*b*) in population groups with high tuberculosis morbidity and mortality rates, and (*c*) where there has been a known exposure to tuberculosis or where an exposure is likely to occur, as in the households of patients returning from hospitals or sanatoria
>
> Local full-time health departments should be in a position to judge the need for and the timeliness of a BCG program in their respective localities The details of the program are to be carried out by local personnel and facilities Other local agencies which will participate in this program are medical schools, nurses' training schools, general hospitals, hospitals for the tuberculous, and tuberculosis clinics
>
> For the present, BCG vaccine will be distributed on request to (1) local full-time health departments, (2) medical colleges and teaching hospitals, (3) superintendents of public tuberculosis hospitals and directors of tuberculosis clinics, and (4) additional hospitals and institutions with specially trained physicians who have been designated by the State Commissioner of Health to administer BCG vaccine

The procedures recommended are as follows

> 1 Tuberculin test the entire group Use purified protein derivative intracutaneously In groups in which there has been a known unduly high exposure to tuberculosis it is preferable to use two test doses of P P D 0 00002 mg for the first test dose and 0 0002 mg for the second dose When a single test is used, the dosage recommended is 0 0002 mg of P P D Interpretations of the tests should be made at forty-eight to seventy-two hours, preferably the latter A reaction to tuberculin should not be interpreted unless there is definite induration or edema of at least 6 to 8 mm diameter, regardless of whether redness is present or not If old tuberculin is used,

ABDOMINAL SURGERY IN INFANCY AND CHILDHOOD

EDWARD J DONOVAN, M D , New York City

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THERE are certain qualities necessary in a man who wishes to be successful in the surgery of infants and children. First of all, he must be fond of children, understanding, sympathetic, and most important of all requisites, he must be gentle at all times He must be a keen observer and able to seize his opportunities as they present themselves, since it is often necessary to make the diagnosis not only without the cooperation of the patient but in spite of his opposition. He must not consider an infant or a child as a small edition of an adult, subject to the same diseases as adults and reacting in the same way

While at times almost every adult surgical condition may be found in an infant or a child, the converse does not hold true, as children suffer from several abdominal conditions such as acute mesenteric lymphadenitis, congenital pyloric stenosis, idiopathic intussusception, and certain malignant tumors, such as Wilms' tumor of the kidney, neuroblastoma of the adrenal or sympathetic nerve cells, which have no counterpart in adult life The pathologic process in a child is often exactly the same as that found in adults but is modified by the child's reaction to it. It is for this reason that many diseases of infancy and childhood are abrupt in their onset, intense in their manifestations, and of short duration Children do not suffer from the degenerative diseases of adult life, and their fresh young tissues react most satisfactorily to surgical trauma Their powers of healing are tremendous and through the process of growth and development may overcome great handicaps The best example of this power is the way that an infant will heal a postoperative incisional hernia by growth only, while these hernias in adults always need surgical repair

Another way in which abdominal surgery in infants and children differs from that in adults is the children's reactions to surgical trauma There is a very definite limit to the amount of abdominal surgery that an infant or child can tolerate, yet it has always been amazing to see how much surgery even a very young infant is able to stand if the surgeon remembers that he is operating upon an infant instead of an adult Children do not stand rough handling of their tissues, are very easily disturbed by the loss of blood, and will resist vigorously up to a certain point, but beyond that point the drop may be precipitous and unheralded The surgical attack on the offending organ should be as direct as possible, as there is practically no indication in abdominal surgery of infants and children for the so-called exploratory laparotomy of adult life

It is now generally agreed that any child about to face an operation must be in the best possible condition as far as fluid balance is concerned No longer are the long periods of starvation and purgation before operation considered either necessary or desirable, since it is much more important to increase his fluid intake right up to the time of operation than to remove a quantity of fluid from his gastrointestinal tract by use of purgatives There is no excuse nowadays for operating on any child who is not in fluid balance, as the necessary fluids may easily be supplied in a matter of a few minutes or perhaps an hour Many a successful operation has proved to be a failure because the patient was anemic, dehydrated, or in no condition to stand an operation when the delay of perhaps an hour in replenishing his lost fluids would have assured the successful outcome There is no abdominal condition in an infant or child which is so urgent that the child need be operated on when he is not properly prepared. Clyses or infusions of glucose and saline and transfusions of whole blood or plasma are too easily done to allow any child to be operated on without these benefits No better example of the benefits of proper preparation for operation is needed than the present low mortality in the surgical treatment of pyloric stenosis In the days when these babies were operated on as emergencies and when the medical profession did not appreciate the importance of fluid balance, the mortality was as high as 35 per cent As soon as it was found that these babies needed to have their lost fluids restored more than an emergency operation, the mortality began to drop and continued to do so until it has now reached the level of 1 per cent.

It has also been stated, and I believe quite without justification, that diagnosis of abdominal conditions in infants and children is more difficult than in adults This I believe depends almost entirely upon the examiner's approach to his problem The sick child, particularly if he has a painful lesion in his abdomen, considers every stranger who approaches his bed as an enemy who is only going to add to his discomfort If the proper approach is made—and this means being

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thousand persons examined would hardly seem to justify the expenditure of time and money involved, even if the facilities needed for a project of this magnitude were available

A more practicable approach is the x-ray examination of selected groups, the groups in which the bulk of the 3,100 deaths and 7,600 new cases of tuberculosis last year occurred Concentration of our efforts in these groups should lead to finding a larger number of active cases of the disease and finding them earlier Analysis of the data for 1947 indicates that approximately 70 per cent of all male deaths from tuberculosis occurred in men over forty-five and predominantly in white males in poor economic circumstances Almost the same proportion of female deaths occurred in women under forty-five The nonwhite population contributed 30 per cent of all deaths, and these were mostly in younger persons The distribution of new cases by age, sex, and race presented a similar picture

Case-finding among these persons can be done in several ways The x-raying of all hospital admissions is highly productive and should become a routine hospital procedure Recent studies show that a significantly higher proportion of active tuberculosis is found among patients consulting private physicians for a multiplicity of complaints than in the so-called apparently healthy population Routine screening of all private patients by fluoroscopy or x-ray is indicated The entire mass x-ray survey program should be directed more selectively at older white males and younger females, particularly in the nonwhite population Women attending prenatal clinics, domestics, and people receiving public assistance should be x-rayed almost routinely Such a program can and should be continuous, and the services of the Department of Health are freely available for this purpose

The problem of the use of BCG in New York City rests on practical rather than theoretic grounds The mortality from tuberculosis in childhood has been reduced to so low a level that the need for BCG must be doubted In fact, it is only when the twenty to twenty-four-year age group is reached that the number of tuberculosis deaths becomes sufficiently great to justify considering the administration of BCG to the large number of individuals involved This is the group in which least is known about the effect of the vaccine and the duration of the immunity it produces Until these questions have been answered, the routine administration of BCG to adolescents and young adults in New York City would seem to be premature Such investigations are under consideration by the Health Department

Just a few words about streptomycin In the enthusiasm over the first effective antibiotic against the tubercle bacillus, the fact that the case must be found before it can be treated must not be overlooked The earlier it is found, the greater is the likelihood that streptomycin will control the infection Streptomycin offers the strongest justification for the expansion of our efforts to find early cases of tuberculosis On the other hand, the injudicious use of the drug may not only do the patient no good but may even deprive some unfortunate contact of his best chance of getting well. This very real danger places the public health responsibility for the use of streptomycin squarely on the shoulders of the clinician

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OSTEOPATHS LOSE KANSAS CASE

The three-judge Federal court convened at the request of four Kansas osteopaths, in a unanimous decision November 16, 1948, upheld the constitutionality of the Kansas osteopathic act In doing so, the court gave full recognition to the right of the state to confine osteopaths to manipulative therapy and to deny to them the right to "use or administer medicinal therapeutics or operative surgery with instruments" The court pointed out that, prior to and since the enactment of the osteopathic act in 1913, "the science of osteopathy has been and is now based upon the concept that the curative powers for bodily disease, infirmity or disability are within the body itself, and, if the structural integrity of the body is maintained, the natural cures will combat the disability, that the art and science of osteopathy lies in detecting and correcting structural derangements in the body by manipulative therapy"

In Kansas, the court said, "the osteopathic profession is classified and regulated as a drugless and knifeless healing art or science" An appeal from this decision may be taken direct to the United States Supreme Court.—*J A M A, November 14, 1948*

ABDOMINAL SURGERY IN INFANCY AND CHILDHOOD

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(From the Department of Clinical Surgery, College of Physicians and Surgeons, Columbia University, and St Luke's and Babies Hospitals)

THERE are certain qualities necessary in a man who wishes to be successful in the surgery of infants and children First of all, he must be fond of children, understanding, sympathetic, and most important of all requisites, he must be gentle at all times He must be a keen observer and able to seize his opportunities as they present themselves, since it is often necessary to make the diagnosis not only without the cooperation of the patient but in spite of his opposition. He must not consider an infant or a child as a small edition of an adult, subject to the same diseases as adults and reacting in the same way

While at times almost every adult surgical condition may be found in an infant or a child, the converse does not hold true, as children suffer from several abdominal conditions such as acute mesenteric lymphadenitis, congenital pyloric stenosis, idiopathic intussusception, and certain malignant tumors, such as Wilms' tumor of the kidney, neuroblastoma of the adrenal or sympathetic nerve cells, which have no counterpart in adult life The pathologic process in a child is often exactly the same as that found in adults but is modified by the child's reaction to it. It is for this reason that many diseases of infancy and childhood are abrupt in their onset, intense in their manifestations, and of short duration Children do not suffer from the degenerative diseases of adult life, and their fresh young tissues react most satisfactorily to surgical trauma Their powers of healing are tremendous and through the process of growth and development may overcome great handicaps The best example of this power is the way that an infant will heal a postoperative incisional hernia by growth only, while these hernias in adults always need surgical repair

Another way in which abdominal surgery in infants and children differs from that in adults is the children's reactions to surgical trauma There is a very definite limit to the amount of abdominal surgery that an infant or child can tolerate, yet it has always been amazing to see how much surgery even a very young infant is able to stand if the surgeon remembers that he is operating upon an infant instead of an adult Children do not stand rough handling of their tissues, are very easily disturbed by the loss of blood, and will resist vigorously up to a certain point, but beyond that point the drop may be precipitous and unheralded The surgical attack on the offending organ should be as direct as possible, as there is practically no indication in abdominal surgery of infants and children for the so-called exploratory laparotomy of adult life

It is now generally agreed that any child about to face an operation must be in the best possible condition as far as fluid balance is concerned No longer are the long periods of starvation and purgation before operation considered either necessary or desirable, since it is much more important to increase his fluid intake right up to the time of operation than to remove a quantity of fluid from his gastrointestinal tract by use of purgatives There is no excuse nowadays for operating on any child who is not in fluid balance, as the necessary fluids may easily be supplied in a matter of a few minutes or perhaps an hour Many a successful operation has proved to be a failure because the patient was anemic, dehydrated, or in no condition to stand an operation when the delay of perhaps an hour in replenishing his lost fluids would have assured the successful outcome There is no abdominal condition in an infant or child which is so urgent that the child need be operated on when he is not properly prepared. Clyses or infusions of glucose and saline and transfusions of whole blood or plasma are too easily done to allow any child to be operated on without these benefits No better example of the benefits of proper preparation for operation is needed than the present low mortality in the surgical treatment of pyloric stenosis In the days when these babies were operated on as emergencies and when the medical profession did not appreciate the importance of fluid balance, the mortality was as high as 35 per cent As soon as it was found that these babies needed to have their lost fluids restored more than an emergency operation, the mortality began to drop and continued to do so until it has now reached the level of 1 per cent

It has also been stated, and I believe quite without justification, that diagnosis of abdominal conditions in infants and children is more difficult than in adults This I believe depends almost entirely upon the examiner's approach to his problem The sick child, particularly if he has a painful lesion in his abdomen, considers every stranger who approaches his bed as an enemy who is only going to add to his discomfort. If the proper approach is made—and this means being

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friendly and kind, restoring the child's confidence in you, and making him think that you are his best friend—he will allow you to do many things, such as a rectal examination which is painful and adds greatly to his discomfort, while someone else in attempting to accomplish these things in a different way will be wholly unsuccessful For example, if the child is suspected of having an acute appendix, do not start your abdominal examination by palpating his right lower quadrant Start on the left side and work around gently to the right lower quadrant If you start by hurting him, you are almost surely doomed to fail Symptoms alone may make a diagnosis in an adult, but this is not true for a child A very careful and thorough abdominal and rectal examination is essential in all abdominal surgical conditions

The actual operation should be done as quickly as is consistent with careful handling of tissues and complete hemostasis, but speed must never be attained by hurried, careless work Each structure should be seen rather than felt and intra-abdominal manipulation should be kept at a minimum Because of their thin abdominal walls, infants and children are much more apt to disrupt their abdominal incisions than adults Disruption of a surgical wound is a serious complication, because it practically always means a second anesthetic, often in a very critical period of the child's convalescence and perhaps before he has fully recovered from the first anesthetic For this reason, great care must be given to the layer closure of all abdominal incisions It is also an excellent plan to use retention sutures of silk on all abdominal incisions, except perhaps on the McBurney incision

The child's postoperative reaction to an abdominal operation is, for the most part, most gratifying Postoperative respiratory infections and atelectasis occur very rarely Children never have to be catheterized nor do they require cathartics after operation They are usually ready and eager to take the nourishment that they require and need not be urged to move around the bed or sit in the chair when the proper time comes They are also very tolerant of such things as infusions, Miller Abbott tubes, etc, far more so than many adults

The greater part of the abdominal surgery of the first year of life is the direct result of some congenital anomaly Infection, therefore, plays a minor role in the abdominal surgery of this period, but, after the child is a year old, infection forms the background of many abdominal pathologic processes as it does in adult life The genitourinary tract is probably the most common site for congenital anomalies, but the gastrointestinal tract is not far behind and it is the latter anomalies which concern us most today It is impossible in a paper of this kind to cove all of the abdominal surgical conditions in in fants and children, so that I am going to discus the congenital anomalies of the gastrointesti nal tract, attempting to accentuate the most im portant points in the diagnosis and treatment o these conditions

One of the first of the congenital anomalies o the gastrointestinal tract is congenital atresia o the esophagus It is considered first because it is found at the upper end of the gastrointestinal tract and also because it makes its presence known but a few hours after the child is born This anomaly exists in four different types, but one type is by far the most common, occurring in at least 85 per cent of the cases, and is the only one we need to discuss today This anomaly consists of a closed upper esophageal pouch, completely separated from the lower esophageal segment which communicates with the trachea at or just above the bifurcation One may suspect the presence of this anomaly if the newborn baby seems to have an unusual amount of saliva or mucus in his mouth and pharynx Your suspicion may then be confirmed by passing a catheter, about size 16 F, down the esophagus and encountering a complete obstruction about 12 cm from the anterior alveolar arch Your suspicions of the presence of the anomaly should be increased if, in addition to the presence of the abnormal amount of secretions in the mouth and pharynx, the baby exhibits severe distress with the very first drink of water he is allowed by mouth He regurgitates it through his mouth and nose immediately, becomes cyanotic, and has quite a serious time as the result of taking the fluid Further confirmation may be obtained by injecting a small quantity of lipiodol (never barium) into this catheter and taking an x ray Barium should not be used for this x-ray, as the baby will aspirate it into his trachea and it will spread through his bronchial tree Lipiodol under these circumstances is quite harmless If the lower esophageal pouch communicates with the trachea, as it usually does, the same x-ray plate will show a normal amount of air or gas in the stomach and intestines This baby should be operated upon as quickly as possible, for he will have an aspiration pneumonia in a matter of three or four days The reason for this is that there is always a great amount of secretion and mucus in the closed upper pouch which he will regurgitate and then aspirate into his trachea and bronchi The ideal operation is to disconnect the fistula from the trachea and do an end-to-end anastomosis between the two esophageal segments Unfortunately, this is not always possible because of the distance between the two seg-

ments or because of the great disparity in the size of their lumens If the ideal operation cannot be done, the upper pouch must be brought out in the neck with the hope of later establishing an external esophagus Great progress has been made in the past ten years in the surgical treatment of this anomaly and, as surgeons' experience increases, many more end-to-end anastomoses will be accomplished

Another early congenital anomaly which needs surgical repair early in life is hernia into the umbilical cord This condition is present at birth and should be corrected as quickly as possible, because the sac of the hernia, which is made up of amnion and peritoneum, is so thin that if allowed to dry it will crack and permit infection to pass from the outside to the peritoneal cavity This condition is usually easily corrected by excising the sac and closing the defect in the abdominal wall with through-and-through silk sutures

Passing down the gastrointestinal tract, the next congenital anomaly that is encountered is pyloric stenosis This condition is caused by hypertrophy of the circular muscle of the pylorus which oftentimes is five or six times its normal thickness, while all other structures at the pylorus are normal. This condition occurs about seven times more often in males than in females and very frequently in the first child of a family Vomiting, which is always the first symptom, usually does not begin until the baby is two weeks old The vomiting, which is a regurgitation at first, soon becomes projectile in character The vomitus never contains bile, which is a very important differential point between pyloric stenosis and congenital duodenal obstruction The vomitus may contain bright red blood or coffee-ground material which is due to the rupture of a gastric mucosal vessel during the forceful vomiting or to the associated gastritis which is present in a large majority of the cases The diagnosis of pyloric stenosis is made by palpating the pyloric tumor which is present in every true case of pyloric stenosis and is pathognomonic since it is found in no other condition These babies soon become dehydrated, lose weight rapidly, and become constipated because they are losing all of their fluid by vomiting They should all be operated on as soon as the pyloric tumor is palpated and the fluids that they have lost by vomiting have been completely restored.

They should never be considered emergencies, as there is really no hurry about operating on them, and they should never be operated on until the tumor is palpated and until they are completely hydrated The Fredet-Rammstedt operation is successful in all cases and gives a permanent result as shown by the follow-up of cases that has extended over the years The mortality should not be greater than 1 per cent

Congenital duodenal obstruction may be divided into two groups depending on whether the obstructing lesion is intra- or extraluminal The common causes of both groups are as follows

Extrinsic Causes	Intrinsic Causes
1 Developmental bands	1 Atresia
2 Volvulus of the mid-gut loop	2 Stenosis
3 Fixation of the duodenum in an abnormal position	3 Intraluminal diaphragm or membrane

There is quite a difference in the clinical behavior of the two groups, as the extrinsic lesions are apt to start as incomplete obstructions which may become complete, perhaps while you have the baby in the hospital for observation These lesions do not always require immediate attention directly after birth as an intrinsic lesion often will, because the latter usually caused complete obstruction and calls for a major surgical operation when the baby is but a few hours old Success with this type of surgery depends, to a large extent, on how quickly the diagnosis is made and the thoroughness of the preparation before operation The diagnosis of any type of duodenal obstruction is suspected if the baby vomits bile A plain plate of the abdomen usually discloses the enlarged duodenum distended with gas, with no gas shadow beyond it if the obstruction is complete Anastomosis of the jejunum to the dilated duodenum either in front of or behind the transverse colon is the operation of choice

There are many causes of congenital obstruction of the small or large bowel in newborn infants The most common causes are atresia, developmental bands, various forms of malrotation, and meconium ileus The diagnosis of intestinal obstruction may easily be made with the help of a plain plate of the abdomen and the obstruction located either in the small or large bowel by this means, but it is impossible to determine the cause of the obstruction until laparotomy is done It is wise to be careful of the use of barium mixtures in making the diagnosis of intestinal obstruction, as you may convert an incomplete obstruction into a complete one by so doing All of the information necessary may be obtained by a plain plate of the abdomen. All cases of intestinal obstruction in the newborn should be operated upon immediately, as sometimes the delay of an hour or two may make a great difference in the outcome of the operation.

Every patient with congenital atresia of the bile ducts should be operated upon in the hope that it may be possible through some type of

anastomosis to deliver the bile into the intestinal tract Unfortunately, so little of the extrahepatic duct system is developed that it is impossible to accomplish this in the majority of cases The liver and the extrahepatic ducts go through a very complicated process in their development, so that it is not to be wondered at that these anomalies occur quite frequently The history in almost every case shows the presence of jaundice which appears shortly after birth and persists beyond the period one would expect physiologic jaundice to do The jaundice is accompanied by clay-colored stools in many, but not all, cases Passage of a duodenal tube and no finding of bile in the duodenal drainage is an excellent test The diagnosis actually depends upon the findings of obstructive jaundice by laboratory tests Operation should not be done until the patient is at least six weeks old and has been under careful observation for several days Physiologic jaundice has usually disappeared by the third week of life

Congenital diaphragmatic hernia may exist in one of several forms One of the most common types shows the defect to be in the posterior part of the chest where the embryonal fibers of vertebral and costal origin have failed to fuse This opening is called the foramen of Bochdalek Hernias through the esophageal hiatus are the next most common variety The diagnosis of most congenital hernias may be made by taking a plain plate of the chest This will show the gas bubbles in the chest, collapse of the corresponding lung, and displacement of the heart to the opposite side of the chest Any infant or child who has coils of bowel in the chest should be operated upon as quickly as possible, otherwise he is a candidate for intestinal obstruction, the worst complication that can befall a patient with diaphragmatic hernia It is also important not to delay operation because the abdomen will not develop if all of its contents are in the chest So, by waiting to repair the hernia, the operator may find that the abdomen is too small to contain all of the structures he brings down from the chest We have successfully operated upon several small infants who were in such respiratory distress that they had to be kept in oxygen until they were anesthetized

Meckel's diverticulum is another congenital anomaly whose possible presence in the abdomen must not be forgotten It may be troublesome because when it becomes inflamed the signs are impossible to differentiate from those of acute appendicitis It is, moreover, much more apt to cause intestinal obstruction by becoming wrapped around some loop of intestine, or it may be the cause of intussusception When it contains aberrant gastric mucosa, as it frequently does, a gross abdominal hemorrhage may be th first indication of its presence The treatmen in all cases is to remove the diverticulum

Congenital malformations of the rectum an anus seem to be all too frequent The mos common anomaly in female babies is an abnorma position of the anus, which is located in the pos terior vaginal wall The anus should be re moved and transplanted to its normal position but this operation should not be attempted unti the girl is about ten years old It must be done before menses start, but it should not be done too early in life The transplantation of the rectum anh anus should be preceded by a completely defunctioning transverse colostomy A splendid result may be expected In boys the anus, anal canal, rectosigmoid, or the rectum may be absent The diagnosis of what part of the large bowel is present may usually be made by taking a plain plate of the abdomen If the rectum or sigmoid is absent, a colostomy must be done The large majority of boys with imperforate anus have a congenital communication between the bladder or the posterior urethra and the rectum, and this fistula is usually diagnosed by the spontaneous passage of meconium through the penis or by the passage of urine into the rectum This fistula will require surgical closure, sometime after we have been able to establish continuity of the gastrointestinal tract

Duplication of any part of the gastrointestinal tract may occur in children, but by far the most common site is in the terminal ileum Duplications usually develop from embryonic rests and lie in the mesentery of the bowel they parallel They also have the same blood supply as the viscus they parallel and, for this reason, it is impossible to remove them without compromising the blood supply and the adjacent loop of gut They very frequently do not contain the same type of mucous membrane as the gut whose mesentery they share, and frequently contain gastric mucous membrane which ulcerates and may cause very serious gastrointestinal hemorrhage They usually communicate with the bowel at one end, but frequently they do not do so They do not show in a gastrointestinal x-ray series, so that they are frequently diagnosed by the process of exclusion They should be completely removed with a corresponding length of the gut they parallel

There are many abdominal surgical conditions in infants and children which have no relation to the anomalies, and I would like to call attention to the salient features in the care of some of the more common of these conditions

The earliest and probably the most common surgical emergency in children between the ages of five and eighteen months is idiopathic in-

intussusception. This condition occurs much more frequently in boys than in girls, and often in the healthiest and most vigorous of the male children. The history in almost all cases is the same, i.e., a strong healthy male child between the ages of five and eighteen months gets a very acute abdominal pain for no reason known to the mother. This pain is so acute that he cries out, may become pale and covered with perspiration, and there is no doubt in the mother's mind that something acute has taken place inside his abdomen. He may recover from this initial shock in a few minutes only to have a recurrence of the acute attack later. He soon passes blood or bloody mucus by rectum, but it is well to remember that it is possible for him to pass one or more perfectly normal stools before they show the bloody mucus. With a history such as this, one should suspect the child of having an acute intussusception. The diagnosis is confirmed by palpating an abdominal mass, usually running transversely across the epigastrium. Operation should be done as quickly as it is possible, because every hour of delay may decrease the operative chance of reducing the intussusception. The mortality in the treatment of intussusception may all be attributed to delay in diagnosis or delay in operation.

Acute appendicitis may occur at any age. We have seen several cases in infants less than one year of age. This is another condition where the mortality is almost entirely due either to delay in diagnosis or delay in the operative treatment. No amount of skill on the part of the surgeon may overcome the harm caused by delay as stated above. The diagnosis is probably no more difficult in infants and children than it is in adults. The history in almost every case is that of generalized abdominal pain followed by vomiting. The most reliable of all physical signs is definitely localized tenderness or rebound tenderness over McBurney's point. We prefer to use a McBurney incision on all males and on all females under twelve years of age. After twelve years of age, we prefer to make a right rectus incision in girls. There is no doubt whatever in the surgeon's mind that acute appendicitis is the cause of the trouble. It is very difficult to treat other conditions than acute appendicitis through a McBurney incision.

The care of inguinal and umbilical hernias in infants often causes the attending physician no end of worry. A simple statement of the indications for surgical treatment of this condition may be helpful. Because so many inguinal hernias in infants will heal spontaneously during the first year of life, they are not all considered to be surgical. Many of them will be helped by the use of a truss. In other words, the only indication for the surgical repair of an inguinal hernia in an infant under one year of age is that the hernia is troublesome, and by that I mean that it is frequently becoming incarcerated, and the physician has to be called to reduce it. After the infant has reached the age of one year, very few inguinal hernias will heal spontaneously, so that they should all be operated upon. The mortality and the recurrence rate in the surgical treatment of inguinal hernias are both zero. Similar conditions and indications apply to umbilical hernias in infants. Many umbilical hernias occur in infants who have rickets, and as the rickets improve and by the process of growth and development of the child, an umbilical hernia may be cured spontaneously up to the age of four years, so that it is our policy not to operate upon umbilical hernia before the child is four years old, unless the hernia becomes repeatedly incarcerated. Very few umbilical hernias will heal spontaneously after the child has reached the age of four years.

Incompletely descended testes should be brought down to the scrotum before puberty, as the testicle undergoes its greatest development at puberty and has a far better chance of becoming a good testicle if it is in the scrotum. The best time for operation is between the ages of eight and twelve years. Since for most incompletely descended testes there is a mechanical reason why they do not descend into the scrotum, I do not believe that many of them are helped in their descent by the use of hormones. Many parents request a trial of hormone treatment, and I see no real reason why it should not be tried if done judiciously.

Infants and children are excellent subjects for carefully planned and skillfully executed abdominal surgical procedures. They will respond most gratifyingly to the careful handling of their tissues and will get well in spite of the greatest odds if they are given a chance.

Discussion

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R. Franklin Carter, M D , *New York City* —After considerable experience in the management of abdominal conditions in infancy and childhood, the general surgeon will appreciate and understand the importance of the special features in this field as pointed out by the author Certain qualities in the man may be desirable, but certainly the man must realize that the child is not a small edition of the adult in a surgical way before he can become as successful in this field as he may after such a realization Throughout the whole discussion that we have just heard there is evident a profound understanding and appreciation of the importance of these special features

Special conditions encountered in infants and children, as well as the difference in reaction of the child to pathologic conditions seen in adult life, have been pointed out for our guidance The prompt and severe reaction of an infant to conditions common to both infant and adult has often discouraged the pediatrician as well as the surgeon in instituting radical surgical measures

Exploratory laparotomy in childhood is rarely, if *ever, indicated because of subjective symptoms* The severe abdominal symptoms encountered in the adult in association with psychosomatic conditions are not seen in the child Vomiting is at times a very misleading sign in children when it is seen in connection with a behavior problem

The belief that children, and especially infants, could not withstand as much surgery as adults is gradually being dispelled With an equal degree of preparation beforehand and an adequate immediate preparation, such as having an infusion started through a cut-down procedure, and with plenty of blood on hand, any surgical procedure can be planned and carried out on the child to the same extent that it could be in the adult Surgical shock may appear quickly and with little warning in the midst of extensive abdominal operations in children To wait until shock appears before starting an infusion on a child is not so safe as in an adult, this is especially true of infants The child may be so small that actually there is not room, during the operation, for anyone to get near enough to start an infusion Therefore, all infants should have an infusion going through a cut-down cannula in place or a well-secured needle before the abdominal incision is made in cases in which resection of intestine may be necessary

We have all heard the statement that diagnosis of abdominal conditions in children is more difficult than in adults This may be due to the examiner's approach to the problem, but it is also very materially influenced by the examiner having an erroneous opinion on the subject, such as, that acute appendicitis does not occur under a certain age or that children do not have some other conditions, therefore, something common to childhood must be looked for Vomiting in infants is more often caused by incorrect eating than it is in the adult, but it may be the result of organic disease in infancy just as it is in adult life

Wound disruption is, or was, common in infants until we realized that the omentum in very young infants contains little fat It may be caught in t wound closure without being detected In t position, the wound is bathed in peritoneal flu healing is interfered with, and disruption may resu

The surgical conditions encountered during t first year of life make up the most interesting gro of all conditions found in childhood In them have a surgical opportunity to restore the continu of the intestinal tract, relieve obstruction, and move or relieve developmental defects A spec experience in the management of these patients is necessity in order that prompt diagnosis can be ma and proper surgical relief measures instituted knowledge of the most common lesions causing o struction, their most frequent location, and t proper operation to employ is of paramount impo tance to anyone in this field Exploratory lapa otomy and disemboweling the patient to search f the obstructing lesion is a shocking procedure I the presence of an existing shock of intestinal ol struction, the exploration may very well be mo than the infant can stand Therefore, emergency temporary relief measures such as ileostomy or colo tomy become necessary procedures to use instea of removal or proper short circuiting operation Infants tolerate ileostomy poorly Colostomy wi complicate the second operation by its presence i the field An accurate diagnosis as to the site an most probable cause of the obstruction before open ing the abdomen with a direct and prompt exposur of the lesion under local anesthesia will enable th surgeon to perform a permanent or complete opera tion in one stage

The use of the x-ray in patients with suspected obstruction of the gastrointestinal tract in infancy *has been variously advocated It is thought that* partial obstruction may be converted into a complete one by the presence of the barium above the lesion Such a stenosis will ultimately result in obstruction in any event so that, if it be precipitated by the mixture, we feel the information obtained by its use justifies the risk involved in patients with suspected lesions in the stomach or duodenum A preliminary exposure of the abdomen to detect the presence of intestinal gas will prevent the use of a barium mixture in atresia of the esophagus, small intestine, and lower bowel The x-ray will locate the site of the lesion in the duodenum With this information the surgeon can quickly reach the area and determine the cause The barium mixture should be thoroughly washed from the stomach before operation An indwelling catheter in the stomach, after thorough lavage, should be a routine preoperative measure in all patients with obstruction Any patient going to the operation with a dilated stomach is apt to eructate or vomit during the handling of the stomach and thereby inspire gastric content into the bronchi and set up postoperative complications much more serious than the operation itself

Congenital anomalies of the bile ducts present a problem with biliary obstruction that should be diagnosed by the third month of life or earlier The prompt use of all the blood and urine tests together with duodenal drainage will establish the diagnosis early After three months of age the enlarged liver

makes the operation very difficult, liver damage becomes severe, and the ducts above the atresia are found to have become caked with inspissated bile Restoration of bile flow in the presence of liver damage and bile casts may never take place after the obstruction is relieved if the patient is not operated on before the finer bile capillaries become clogged

In five instances of congenital lesions of the ducts with complete biliary obstruction under treatment at the New York Post-Graduate Hospital during the past year, two were found to be amenable to surgery at the time of the operation A congenital cystic formation of the common bile duct was relieved by cholecystogastrostomy and a complete atresia of the common hepatic duct by hepaticoduodenostomy The patient with cystic formation has recovered, the second case, with complete atresia, has bile in the stool and is developing well, although a little jaundiced still The three cases in which restoration of bile flow could not be accomplished were in the older age group, the oldest being twenty-two months of age The main intrahepatic bile ducts were explored in both lobes of the liver without finding a lumen large enough to anastomose satisfactorily to the intestinal canal The terminal bile capillaries were distended with bile casts From the cut surface of the liver, small amounts of bile drained for a few weeks after the operation. Some improvement was noted from the hepatotomy and external drainage of the intrahepatic areas, but nothing approaching a real bile flow could be established for turning into the intestinal canal We hope to get cases earlier for no one knows whether the condition is entirely due to changes during intrauterine life or whether the process may not continue on after birth Earlier operation should reveal less clogging of what ducts may be found and give the liver a better opportunity to re-establish external secretion after the ducts are opened up

As we have said, this paper of Dr Donovan's contains most valuable points for every general surgeon to study carefully for improving his diagnosis and operative procedures to be used in this special field of surgery in early life

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A TRIBUTE TO DOCTORS

For my dough, the most important people in the world are doctors

If you cut yourself, if something starts biting at your insides, if your kid breaks out in spots, whom do you holler for? Your Congressman? The president of your bank? The Secretary of War? Not on your tintype. You send for the man with the little black satchel.

I sometimes think it wouldn't make very much difference to this world if it took most of its inventors, [illegible] and generals, and ground them up for [illegible]

Inventors have given us a lot of cute things to play with—steam heat, electric lights, radio and the telephone But inventors are also responsible for the airplane, the submarine and the atomic bomb, which has the world standing on one foot

I feel pretty much the same about politicians as I feel pretty much the same about politicians whether being in charge for five thousand years, they've never got us up the well-known creek. Every twenty years or so, one of them makes the same speech that his predecessors of yesterday, my country is at war with your country "

And as for generals, I never could get very excited about any of them. Patton was a picturesque fellow but let's face it Was he as important a strategist as Pasteur, who put the hex on germs, or Lister who put the finishing touches to penicillin? Not in my book

When I was a kid, I had scarlet fever, and they tacked up a sign on my house and nobody could come near me But a small gent with a black bag walked right in I can still see the tiny red veins on his nose and smell the iodoform and tobacco on his suit

I remember asking my mother, "Can't doctors catch scarlet fever? She said they couldn't—but she was fibbing The list of doctors who were killed by the bugs they were chasing would stretch from here to Valhalla.

During the last century, doctors have added something like thirty years to the average life expectancy I can't speak for the fellow next door, but I wouldn't swap one spring of the extra thirty for a chunk of gold as big as Radio City

Of course, the great standouts of medical science don't need any ballyhoo from me But the doctor who rides around in that 1937 Chevvy could use a little applause. In a civilization that rates a guy by how big a check he can write, the doctor knocks his brains out for less than we pay a bricklayer or a plumber Sun or slush, he's on tap if you're in trouble Twenty-four hours a day he stands ready to stop what's hurting you.

To me that's as important as anybody can get — *From "Wine Women and Words," by Billy Rose 1948*

A COOPERATIVE PROGRAM IN RESTAURANT HYGIENE

MEREDITH H THOMPSON, D Eng , Troy, New York

(Director of Environmental Hygiene, Rensselaer County Department of Health)

ALTHOUGH faulty restaurant hygiene has not been proved to be a major cause of mortality, and the correction of errors in food handling in restaurants may not be considered the most important function of a health department dedicated to the reduction of mortality, prevention of disease, and promotion of health, public demand and the dramatic nature of food-borne disease compel the local health department to serious consideration of the problem How-ever, in a program of restaurant hygiene, the health department should place emphasis upon those phases of the problem having a direct bear-ing on the public health This the Rensselaer County Department of Health has attempted to do

The Rensselaer County Department of Health is one of the newest county health departments in New York State, having been established Novem-ber 1, 1946, the first under new laws passed by the 1946 State Legislature This county health department differs from those previously func-tioning in New York State in that the unit was the first to have included within its jurisdiction a city of more than 50,000 population, namely, Troy, New York, where the health department head-quarters are located

Organization of the Department

The Division of Environmental Hygiene, the sanitation arm of the department, was organized on January 1, 1947 Organization of this unit or similar units entails at least four major func-tions

1 Classification and adequate training of both transferred and new personnel Some employes had no previous sanitation experience, while others had experience in limited fields

2 Detailed field surveys of existing sanitary conditions

3 Establishment of adequate and efficient sy s-tems of records and methods of reporting

4 Determining and establishing policies and procedures for all personnel, functions, and records

Although all four functions are important and of interest to those associated with the organiza-tion or many phases of a health unit, at this time we are considering the policies and procedures of a restaurant program At the outset of operation it was agreed that the over-all policy of the environmental sanitation division should be of education, cooperative supervision, and operative and instructive inspection The for such a policy was indicated forcefully by preliminary survey of some 350 restauran determine existing sanitary conditions, v indicated that many conditions, including washing, dish handling, food storage, and handling were unsatisfactory at most of the ing establishments surveyed This conditi not necessarily peculiar to Rensselaer Co but would probably become apparent elsew by a similarly intensive and detailed survey

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These were the major factors to be taken i account in organizing an efficient and progress restaurant hygiene program for Rensse County It was believed that such a progr could be carried out only if (1) department p sonnel were qualified and well trained in aspects of restaurant hygiene, (2) departme personnel were instructed in public relations, (restaurant management and personnel we educated to know the reasons for and how accomplish desired conditions, (4) the departme provided a cooperative and instructive inspectic

Presented by invitation, at the 142nd Annual Meeting of the Medical Society of the State of New York, Section on Public Health, Hygiene and Sanitation May 20 1948

service, and (5) a method of getting voluntary compliance with sanitary regulations by the restaurant personnel and management could be devised All of the items are important, and all must be accomplished for a program to be progressive. Without any one of these a completely adequate program is not probable

Training of Personnel

The training of personnel in restaurant hygiene and public relations was accomplished in part over a period of approximately one year, by an intensive in-service training program, including classroom lectures, demonstrations, and field inspections It was furthered also by eliminating from this work that group of personnel who were not only not qualified but also seemed incapable of becoming qualified

It is necessary to remember that sanitary inspectors are important in the public relations of the health department, since they have personal contact with the public They may help sell and build up public confidence in the work of the department, or may seriously hamper the progress of their own program and the efforts of other branches to gain complete public support It is necessary that the inspectors have tact and a good personality, are neat, and have a fundamental understanding of the work

All personnel of the division on inspection work are instructed to make no recommendations for alterations or changes, unless the inspector is able to provide a logical reason for requiring the alteration or change and show how it can be accomplished This practice works wonders on many inspectors, because they must stop and consider each recommendation before making it, with the result that few impractical recommendations are made The inspector also finds that he has less tendency to criticize when it is necessary for him to provide a logical explanation.

Education of Restaurant Personnel

The education of restaurant managers and personnel has been carried out partially through the institution of food handlers schools similar to other such schools held throughout the United States in the past ten years These schools consist of four sessions of approximately one and one half hours duration each At these sessions, lectures, demonstrations, and visual aids are used to the fullest extent School enrollees are given an idea of what germs are and their relation to the transmission of disease, how to wash and handle dishes, how to refrigerate, display, store and handle food, and, of great importance, personal hygiene

Why do these people need to know about germs? Suppose an inspector has made swab tests of dishes and silverware of a restaurant, and the bacterial counts are high It is the inspector's job to educate the dishwasher or other personnel on methods of dishwashing, handling, and storage The inspector returns to the restaurant and begins a friendly explanation about the restaurant's dirty dishes The dishwasher, perplexed, picks up a glass, closely scrutinizes it, and rightfully states, "This glass looks clean to me" The inspector states, "Physically the glass is clean, but numerous germs or bacteria are present on the glass, and they must be removed"

How can this dishwasher be expected to remove something he can't see and doesn't know about? If he knew a little about what bacteria are and how they function he might be expected to see the reasons for the inspector's trying to get better dishwashing, disinfection, and satisfactory dish handling, as well as refrigeration Unless the employe knows some of the background of his particular problem he can't be expected to do a good job It isn't axiomatic that, since a person operates a restaurant or does a particular job in a restaurant, he knows all about food handling or all about his particular job He may have ten years of experience, but it may be ten years of one-year experiences

All persons attending all four sessions of a food handlers school and passing a simple true-false type quiz are issued a certificate of attendance

Inspection Service

A cooperative and instructive inspection service is in force 100 per cent today The success with which cooperative and instructive inspection works is best illustrated by the facts that restaurant personnel willingly discuss their problems with the inspector, actually point out things they believe they may be doing incorrectly, and telephone the health department office asking that the inspector pay them a visit The restaurant employes have come to know that the health department is trying, by cooperation, to maintain certain standards at eating establishments, in order to protect the health not only of the public but also of the employe The employe is convinced that an inspector will not criticize him unjustly or just to show his authority, but, instead, if some item isn't satisfactory, will explain what is unsatisfactory, why it is unsatisfactory, and either tell or show him how to correct it The employe also knows he will be given an opportunity to give his views on the subject and receive serious consideration—and it's surprising how often the restaurant employe has a good reason for his method of operation

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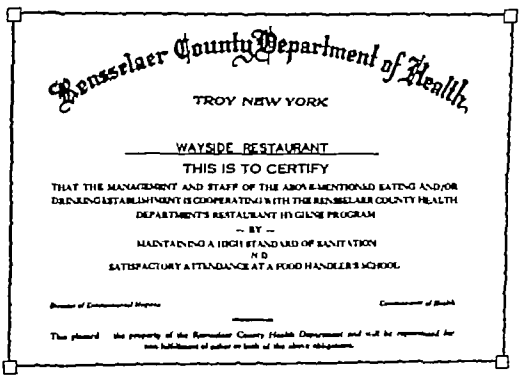
A cooperative and instructive inspection service is in force 100 per cent today The success with which cooperative and instructive inspection works is best illustrated by the facts that restaurant personnel willingly discuss their problems with the inspector, actually point out things they believe they may be doing incorrectly, and telephone the health department office asking that the inspector pay them a visit The restaurant employes have come to know that the health department is trying, by cooperation, to maintain certain standards at eating establishments, in order to protect the health not only of the public but also of the employe The employe is convinced that an inspector will not criticize him unjustly or just to show his authority, but, instead, if some item isn't satisfactory, will explain what is unsatisfactory, why it is unsatisfactory, and either tell or show him how to correct it The employe also knows he will be given an opportunity to give his views on the subject and receive serious consideration—and it's surprising how often the restaurant employe has a good reason for his method of operation

Previously, the only instruction an employe received from an inspector was, "Don't do this," "Don't do that"—with possibly a $25 fine added No one usually stopped to explain, for example, why cream-filled pastry should be refrigerated But, after fining or a police-like inspection, has that inspection agency actually accomplished anything? We believe not, and the records seem to bear us out Instead, the employe and restaurant owner are both angry at the inspecting agency for (1) wasting the taxpayers' money, (2) wasting the owner's and the employe's time, (3) usually making impractical requirements, and (4) providing no assistance This type of inspection procedure causes personnel to become upset and more careless, consequently creating a more serious health hazard within their own establishment than existed prior to the inspection

Let us not forget that the restaurant owner and employe prefer to be treated like human beings, and that they have the same sense of American fairness as other people The modern inspector should be a coworker and friend, not the old type police inspector with badge and uniform

Securing Voluntary Compliance

Securing voluntary compliance is being accomplished by the use of a well-designed, attractive, framed placard which may be displayed by


Rensselaer County Department of Health

TROY NEW YORK

WAYSIDE RESTAURANT

THIS IS TO CERTIFY

THAT THE MANAGEMENT AND STAFF OF THE ABOVE-MENTIONED EATING AND/OR DRINKING ESTABLISHMENT IS COOPERATING WITH THE RENSSELAER COUNTY HEALTH DEPARTMENT'S RESTAURANT HYGIENE PROGRAM

— BY —

MAINTAINING A HIGH STANDARD OF SANITATION

AND

SATISFACTORY ATTENDANCE AT A FOOD HANDLER'S SCHOOL

Director of Environmental Hygiene — Commissioner of Health

This placard is the property of the Rensselaer County Health Department and will be repossessed for non-fulfillment of either or both of the above obligations.

FIG 1

the management, indicating not necessarily approval by the health department but (1) that at least 50 per cent of their personnel have attendance certificates indicating voluntary attendance at a food handlers school conducted by the Rensselaer County Department of Health, and (2) that the management and employes are voluntarily maintaining optimum sanitary standards (Fig 1) The placard, the property of the health department, is issued only after two consecutive inspections indicate all conditions are satisfactory, and may be repossessed for noncooperation on important points of sanitation or not sufficient personnel holding attendance certificates

The appearance of the placard in the window of one restaurant causes the customers of the nearby eating establishment to ask the manager why his establishment doesn't display a placard Continued explanations, such as, "My dishes aren't clean," become embarrassing to the manager, with the result that he requests information as to what is necessary to obtain the placard By this method it is found unnecessary to issue annual permits—the issuing of which takes a great deal of time of an office staff, and which, after being issued, usually have very little significance to the health department or to the consuming public, who constitute the main reason for restaurant hygiene In many departments using annual permits, no attempt is made to revoke permits for infractions of the sanitary code unless the department is certain of successful prosecution in court Therefore, it appears simpler and more effective in getting corrections merely to indicate that certain corrections should be made to obtain a placard, or, if a placard is already possessed, that certain additional corrections or alterations should be made to prevent it being necessary for the health department to repossess the good-standing card

Conclusion

Under this plan of education and cooperation, the eating establishments in Rensselaer County have shown tremendous improvement At the same time, an atmosphere of friendship has been built between the health department, the owner, and the employe It is believed that this cooperative restaurant hygiene program has accomplished and will continue to accomplish more in public health results than a system of policing prosecution, and fines

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THE GASTROPHILE

My very best friend is my stomach,
A source of great joy and delight,
I push it about in the daytime,
And often far into the night.
But (such are the beauties of friendship),
Although I've abused it for years,
It noisily greets me at dawning
And promptly burps up its worst fears

—Anonymous

IMPORTANCE OF VASOCONSTRICTION IN THE TREATMENT OF ACUTE AND CHRONIC MAXILLARY SINUSITIS

A REGINALD EVERETT, M D New York City

(From St Luke's Hospital and Ear, Nose and Throat Outpatient Department)

A REVIEW of the literature reveals little reference to the importance of decongesting the antral mucous membrane A detailed study and follow-up of 171 cases of acute and chronic maxillary sinusitis has led us to believe that many of the failures with the local use of penicillin and the sulfonamides may be attributed to this [1] Because of numerous conflicting reports as to the degree of benefit derived from various preparations of these compounds, it was decided in 1944 to investigate systematically the effects of the more popular agents in the treatment of acute and chronic sinusitis

Shortly after Turnbull advocated the use of sodium sulfathiazole in the treatment of sinusitis, we evaluated the use of a freshly prepared 5 per cent solution of sodium sulfathiazole instilled into the maxillary sinuses after irrigation with normal saline solution [2] Soon thereafter, there became available a stabilized preparation containing 2 5 per cent of sodium sulfathiazole and a vasoconstrictor, 0 125 per cent dl-desoxyephedrine hydrochloride * One particular advantage of this product was the presence of a vasoconstricting agent Furthermore, it was considerably less irritating to the nasal mucosa than plain sodium sulfathiazole in higher concentration Several years experience with the use of this compound had shown that it produced highly satisfactory results in the treatment of acute and chronic sinusitis (Table 1) Encouraged with our results we continued our studies with other therapeutic agents

As is true of infections elsewhere in the body, it seems rational to select the compound most efficacious for dealing with a specific organism or strain It would seem logical that sulfadiazine might succeed where sulfathiazole failed However, the results with Pickrell's solution, which contains sulfadiazine but no vasoconstrictor, were not so impressive in these cases as the results with sulfathiazole containing the vasoconstrictor Tyrothricin was also investigated, as a 1 per cent solution in isotonic sodium chloride In approximately 50 instances of antrum irrigations, the results were not sufficiently impressive to warrant the continued use of this substance

The wide use of penicillin and the favorable results of its intramuscular injection and, in certain cases, of its topical application indicated that its local use for sinusitis might prove beneficial Therefore, in December, 1944, my colleagues and I began investigating the effects of penicillin instilled into the maxillary sinus after irrigations in cases both of acute and of chronic infections After irrigation of the antrum and displacement of the isotonic solution of sodium chloride with air, 2 to 4 cc of isotonic solution of sodium chloride containing 10,000 units of penicillin per cubic centimeter was instilled and allowed to remain in the sinus The results were disappointing, as can be seen in Table 1 The published reports of others indicated similarly poor results [3–6] Fowlkes wrote, "I have not been able to obtain satisfactory results with the local use of penicillin instilled into the sinus cavities, either in acute or chronic cases" [4] Woodward and Holt reported good results in acute cases but failures in all of their chronic cases [7]

In reporting a comparative study of 95 cases of the local use of penicillin and of Sulmefrin in acute and chronic sinusitis, we concluded that the results with the sulfonamide in combination with a vasoconstricting agent was much superior to the plain penicillin in saline solution [1]

More recently, we have studied the effects of a newly developed ephedrine salt of penicillin * The results have been surprisingly good, comparing favorably with the Sulmefrin in the acute cases and more effective in the chronic cases (Table 1) The response in some of the chronic cases was spectacular, and we are in agreement that many patients were thus spared antrotomies or Caldwell-Luc operations To date we have treated 60 cases of maxillary sinusitis with Tersavin. A total of 53 of these was cured, a considerable number having previously received one or more of the other forms of medication without apparent benefit

Since the results with the two therapeutic agents containing a vasoconstrictor had been good and the results with the three containing no vasoconstrictor had been poor, we became curious as to whether or not the whole benefit came from the vasoconstriction Therefore, we treated a similar group of cases, instilling only a

Presented at a meeting of the New York Academy of Medicine Section on Otolaryngology January 19 1949

* Sulmefrin.

* Tersavin—buffered tablets of the l-ephedrine salt of penicillin G Experimental material supplied through the courtesy of Dr E. L. Sevringhaus Hoffmann La Roche Nutley New Jersey

TABLE 1.—Comparison of Results with Various Therapeutic Agents in the Treatment of Maxillary Sinusitis

Maxillary Sinusitis	Sodium Sulfathiazole and dl Desoxyephedrine —Hydrochloride— Cured	Not Cured	Penicillin in —Normal Saline— Cured	Not Cured	l Ephedrine Salt of —Penicillin G— Cured	Not Cured	dl Desoxyephedrine Hydrochloride in —Normal Saline— Cured	Not Cured
Acute	35	3	9	7	31	3	9	3
Subacute	8	0	2	0	4	0		
Chronic	13	6	3	8	18	4	0	5
Total	56	9	14	15	53	7	9	8

vasoconstricting agent, 0 125 per cent desoxyephedrine The results were inferior to Sulmefrin and to Tersavin in both acute and chronic cases but in the acute cases were superior to plain penicillin (Table 1) All five of the chronic cases failed to respond to the desoxyephedrine, but four of these were later cured with Tersavin. The only reason for this series being small is that the results were not sufficiently impressive to warrant its further use

After a careful analysis we have come to the conclusion that the presence of an effective, nonirritating vasoconstrictor in low enough concentration to avoid undesirable secondary effects, together with an antibiotic or chemotherapeutic agent is essential to obtain consistently prompt and effective results This is not surprising if one takes into consideration the intense edema of the mucous membranes lining the sinuses during an infection The introduction of a solution containing a vasoconstricting agent produces decongestion and shrinkage of the mucous membrane, thus exposing a greater surface area to the bacteriostatic component Patients with acute and chronic ethmoiditis showed good response to treatment when Sulmefrin and Tersavin were instilled into the antrum The prolonged and gradual escape of the bacteriostatic and vasoconstricting agent into the middle meatus has provided increased drainage to the ethmoid cells and has exposed them to more prolonged contact with the bacteria-inhibiting compound Their enhanced effectiveness in maxillary sinusitis is attested to by the decreased number of individual treatments required for resolution of the disease process (Table 2) Dysart in measuring the overflow capacity of the antrum found that during an acute attack of sinusitis the capacity of 2 or 3 cc might later become 12 or 15 cc after resolution of the infection, indicating the degree of edema of the sinus mucous membrane [6]

TABLE 2.—Average Number of Instillations Needed to Effect a Cure

	Acute	Chronic
Sulfathiazole with ephedrine	3 4	6
Penicillin in saline	4 6	6
Penicillin in ephedrine (Tersavin)	3 1	4 9

Mode of Treatment

Cultures from the antrum were taken, the amount and type of pus recorded, and, after appraisal of the history, the patients were classified as acute, subacute, or chronic (Table 3)

TABLE 3.—Type of Bacterial Infection Encountered

	Acute	Subacute	Chronic
Pneumococcus	28	2	5
Staphylococcus albus	23	3	11
Staphylococcus aureus	15	1	10
Streptococcus hemolyticus	10	1	1
Streptococcus nonhemolytic	8	3	7
Streptococcus viridans	5	2	8
Micrococcus catarrhalis	3	3	1
No growth	3	0	0
Hemophilus influenza	1	0	2
Colon aerogenes group	0	0	2

Irrigation with normal saline solution was carried out through the middle meatus by means of the Bowers cannula The solution was displaced by air, inclining the head toward the opposite side The head was then deviated to the other side of the midline, and the antrum completely filled with the Sulmefrin or desoxyephedrine solution, in the cases of plain penicillin dosage 2 to 4 cc of saline solution containing 10,000 units per cubic centimeter were employed When Tersavin was used, one buffered tablet containing 30,000 units of penicillin and 9 mg of ephedrine was dissolved in 4 or 5 cc of sterile tap water and was instilled into the antrum None of these patients received any chemotherapeutic or antibiotic agents systemically

No serious evidence of irritation or of sensitivity has been encountered nor have we noted any side- or after-effects from the ephedrine or the desoxyephedrine Of the three cases in which we cultured Hemophilus influenza and the two of the colon group, none responded to either the Tersavin or the Sulmefrin It may be of interest to point out that, although the manufacturer of Tersavin recommends that distilled water be used in the preparation of the solution from the tablets, we routinely employed sterile tap water without observing any deleterious effects therefrom

Favorable results with parenteral streptomycin in laryngotracheobronchitis cases with positive influenza cultures and the known susceptibility of the colon group to streptomycin have led

us to the use of streptomycin locally in the antrum—5 mg per cc in 1/4 per cent ephedrine We are encouraged by the results, but our present experience is too limited for further comment at this time

Summary

1 A series of 171 cases of acute and chronic maxillary sinusitis treated with sulfathiazole, penicillin, and/or a vasoconstrictor is presented

2 A vasoconstricting agent in combination with a bacteria-inhibiting compound appears to be essential in treating these infected mucous membranes

3 The crystalline l-ephedrine salt of penicillin G is the most effective and one of the least toxic agents which we have used in the treatment of acute and chronic sinusitis

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8. Dysart R. Ben Arch. Otolaryng. 45 173 (Feb) 1947

ANNOUNCEMENT

The Board of Medical Examiners of the New York State Education Department has notified the State Department of Health of action taken by the Board of Regents with respect to the medical licenses of the following persons

Maynard Smith Owen, Delaware, Ohio License revoked, annulled and canceled, effective September 30, 1948

Louis Klein, 68 Pratt Street, Hartford, Connecticut. To be censured and reprimanded, effective September 30, 1948

Walter G Connor, Detroit, Michigan Osteopathic license revoked, annulled and canceled, effective August 4, 1948.

Ellis Charles Johnson, 151 16th Street, Buffalo, New York. Physiotherapy license revoked, annulled and canceled, effective July 13, 1948

Benjamino Aquaro, also known as Benjamin Aquaro-Deodati, 637 Lorimer Street, Brooklyn, New York. License suspended for a period of six months from July 29, 1948

Robert J Tuttle, 92 West Main Street, Gowanda, New York License revoked, annulled and canceled, effective July 6, 1948

Charles S Yongue, 654 Madison Avenue, New York Suspension of license for six months modified to suspension for two months, suspension being effective July 13, 1948 to September 13, 1948

Emery Gibson Minckler, 141 East 150th Street, New York. License revoked, annulled and canceled, effective July 8, 1948

Edward H Willie, New York State. License which was annulled and canceled April 26, 1928, restored, effective July 31, 1948

Edward O MacDonald, Roselle Park, New Jersey To be censured and reprimanded, effective October 19, 1948

Albert G Pohly, 24 West 59th Street, New York. To be censured and reprimanded, effective December 6, 1948

Lloyd Gray, New York State Vocational Institute, West Coxsackie, New York. License revoked, annulled and canceled, effective December 3, 1948.

VISCERAL ACTIVITY IN SMALL BOWEL PERFORATION

BERNARD J FICARRA, M D , Brooklyn, New York

(From the Department of Surgery, Saint Peter's Hospital)

IN A PREVIOUS survey I reported 18 cases of traumatic perforation of the small intestine due to nonpenetrating abdominal injuries [1] At that time attention was called to the fact that blunt trauma to the abdomen can result in multiple rents in the small intestinal tract Following an injury of this type the patient may be free of acute symptoms for many hours after the trauma Subsequently, the first sign of intra-abdominal pathology may be a complicating peritonitis At the time of operation certain observations were made which assisted in determining the reason for this absence of abdominal signs In the early stages of acute traumatic perforation of the small intestine, only a small amount of intestinal contents empties into the peritoneal cavity The reason for this is a protecting mechanism on the part of the small intestine as a response to noxious stimuli This clinical observation has been verified in experiments on the small intestine of rabbits Such an experimental study is the topic of this paper

Protective Physiology

Normal activity of the small intestine is produced by muscular and nervous elements The exact mechanism by which this is regulated, however, is not fully known The nervous component of small bowel activity resides in the sympathetic and parasympathetic nervous systems The vagi increase the tone and activity of the small intestine The sympathetic chain has the opposite effect of decreasing the tone and activity Physiologically, it is known that, even though the vagus and sympathetic nerve supplies may be divided, small bowel peristalsis continues Excised segments of the small intestine continue to exhibit rhythmic activity This activity is not unlike cardiac activity when the heart is extirpated from the thoracic cavity For this reason it is logical to suppose that intestinal movements may be continued by means of local activity of the muscular layers These layers are both circular and longitudinal fibers which apparently have an intrinsic activity similar to cardiac muscles The application of mechanical and chemical stimuli to the small intestine as it resides within the peritoneal cavity of the rabbit produces a contracture above the point of stimulation and relaxation below this point This activity is controlled and produced by Auerbach's plexus, which brings about coordinated intestinal activity Some physiologists have applied the term "law of the intestine" to this activity of contraction and relaxation following stimulation of the small intestine

This normal physiologic activity is an inherent characteristic of the small intestine It is also a protective mechanism which prevents an excessive spilling of intestinal contents into the peritoneal cavity following traumatic rents through all layers of the small bowel Experimentally, perforations were made in the small intestine of rabbits These commenced in the serosa, passed the mucosa and entered the lumen of the bowel Immediate active contraction of the small intestine above the site of perforation with relaxation below this site always occurred (Fig 1)



FIG 1 Small intestine of a rabbit showing contraction and relaxation of the intestine above and below the point of noxious stimulus Area is marked with a hemostat.

This activity prevented the elimination of intestinal contents above the site of perforation The relaxation below the point of injury permitted the emptying of intestinal fluid into the distal segments of the intestine without the extravasation of intestinal contents into the abdominal cavity This procedure was performed innumerable times on the intestinal tracts of rabbits. Never have the above results failed to occur The procedure was repeated at the same site on many occasions until muscular fatigue prevented additional responses to noxious stimuli Muscular fatigue, however, did not occur sooner than four hours following constant stimulation

This activity of small intestines explains clinically the apparent delay of clinical symptoms in the group of patients previously reported [1] From the evidence offered experimentally it appears proper to assume that, in traumatic perforations of the small intestine, human intestinal activity closely parallels that observed in the rabbit A rent in the small intestine may occur in a patient who has been the victim of blunt trauma to the abdomen. However, the protective activity of contraction above with relaxation below the point of perforation prevents the spillage of intestinal contents into the peritoneal cavity, thus delaying the onset of peritoneal irritation and its subsequent chain of symptoms However, when muscular exhaustion occurs, this protective activity ceases and the initial signs of peritonitis occur If this type of patient is operated upon within this period of protective muscular activity of the small intestine, the prognosis is better than after the onset of peritonitis This fact is in keeping with the results of our survey of 18 patients who had small bowel perforations The conclusions drawn from our study of 18 cases coincided with the experience of others that traumatic perforation of the small intestine is associated with an unusually high mortality This mortality can be definitely lowered if surgical intervention occurs within that period of protectivity exercised by small intestine

This experimental observation is offered as clinically important because of the fact that several questions associated with the traumatic abdomen can be answered First, the freedom of serious symptoms immediately following blunt injury to the abdomen is explained Second, the optimum time of surgical intervention is during this period of protectivity Exploratory laparotomy during the protective period will be the deciding factor in lowering the mortality in traumatic intestinal perforations

Conclusions

1 Experimental and clinical observation on the protective activity of small intestine physiology in traumatic perforation is recorded

2 The clinical importance of this observation in lowering the mortality in traumatic perforations of the small intestine is explained

3 This protective activity is a characteristic of the small intestine beyond the duodenum and does not include the colon.

Reference

1. Ficarra, B J Surgery 15 465 (Mar.) 1944

LAWS REGULATING DP DOCTORS PROTECT AMERICAN PEOPLE

Laws which confront foreign physicians who want to practice medicine in the United States were set up as a protection against unqualified and incompetent doctors, explains an editorial appearing in the November 13 issue of the *Journal of the American Medical Association*

The editorial says in part

"The laws regulating medical licensure were not adopted for the protection of the medical profession but for the protection of the American people against unqualified and incompetent doctors The laws of the various states differ Some states require full citizenship, others require first papers, some require a year of internship in a hospital within the state, many of them demand fully accredited credentials which physicians from foreign countries frequently do not have.

"The medical schools of many of the foreign countries have been in a deplorable state since the beginning of the Nazi invasions. Recently (at the Forty-Fourth Annual Congress on Medical Education and Licensure, Chicago, February 10, 1948), Dr Irving S. Wright of New York, civilian consultant in medicine to the Surgeon General of the United States Army, reported on a study of the schools of Europe. One of the chief difficulties has been the attempt of the schools to take on more students than they could teach properly, since they suffer from a lack of teaching personnel and equipment

"Europe was completely shut off from scientific information developing elsewhere in the world during at least the years 1939 to 1944. Foreign doctors knew nothing whatever of the development of antibiotic drugs, of new methods of anesthesia, and of any other new medical technics which had been developed elsewhere Estimates indicate that there are about 2,000 physicians in DP camps. It is unlikely that more than a few of these will eventually come to the United States.

"Many of them will accompany the people with whom they fled from their own countries Most of them had such a difficult time keeping alive during their flight that they had little opportunity to keep abreast of medical knowledge. The younger physicians graduated from medical schools which have had a serious time trying to survive since 1933

ABSTRACT OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting on December 9, 1948, the Council considered the following matters, taking action as indicated

Secretary's Report

Remission of Assessments—Remission of annual assessments was voted on account of service with the armed forces for one member for 1948 and three members for 1947

Communications—1 Letter from Dr William A Petry, president of the Greene County Medical Society, December 2, 1948 "Please tell me if or not the State Society approved of a member putting such titles as F A C S , F I C S , Diplomate of Am Board of Int Med , on his stationery, business cards, prescription blanks, etc"

It was voted that this be referred to the Committee on Questions on Ethics

2 Letter from Martha R Wegner, executive secretary, New York State High School Athletic Protection Plan, Inc , November 29, 1948, requesting the State Society to send copies of the Plan's General Information Bulletin to the membership

After discussion, *it was voted* that the Secretary be instructed to reply, stating New York State High School Athletic Protection Plan, Inc , can secure names of physicians from the Medical Directory of New York, New Jersey, and Connecticut, also

It was voted that the Bureau of Medical Care Insurance study this corporation's insurance form.

Meetings—On November 12, 1948, your Secretary was present at a meeting in the New York City Office of the State Education Department which was attended by Dr Robert R Hannon, Executive Officer, Dr Richard A Kovacs and Dr Madge C L McGuinness, as well as several licensed physiotherapy technicians, their lawyer, Dr Irwin A. Conroe, Assistant Commissioner for Professional Education, Dr Jacob L Lochner, Jr , secretary of the State Board of Medical Examiners, and Mr James A. Malaney, Executive Secretary of Professional Conduct

The physical therapy technicians seemed desirous of having the existing law changed so as to allow them legally to practice without the prescription or supervision of a licensed physician They stated brazenly that they did so now and for that reason claimed the law should be changed

On November 18 your Secretary attended the Middle Atlantic States Regional Conference on Medical Service of the American Medical Association, at the Philadelphia County Medical Society, Philadelphia, Pennsylvania. Also present were Dr Carlton E Wertz, chairman, Committee on Medical Service, Dr J Stanley Kenney, Councilor, Dr Laurance D Redway, Assistant Managing and Literary Editor of the NEW YORK STATE JOURNAL OF MEDICINE, and Mr George P Farrell, director of the Bureau of Medical Care Insurance The morning session was devoted to the subject, "What Is the Responsibility of the Practitioner in Regard to Hospital Financing?" The afternoon session was spearheaded by Dr Paul R Hawley and the subject was "Blue Cross-Blue Shield Commission Proposals." During luncheon, Dr Joseph S. Lawrence discussed the "Washington Horoscope" Dr J Stanley Kenney was selected to be a member of the Executive Committee of this body for the ensuing year

On November 23, your Secretary attended a meeting of the Advisory Council on Nursing of the New York State Education Department in Albany Among other business at this meeting, it was voted to recommend that the Department of Education support a proposed bill to allow dentists legally to give orders to nurses, in caring for patients

On November 28 and 29, 1948, your Secretary attended the American Medical Association Conference of State Medical Association Secretaries and Editors at the Hotel Statler, St Louis, Missouri. The program included a Symposium on Medical Legislation, a Symposium on Osteopathy, a Report on Cooperative Medical Advertising Bureau, conferences on Medical Society Radio Programs, Medical Hospital Prepayment Plans, and Medical Legislation. Also, a clinic was held regarding state medical journals at which *Arizona Medicine*, the *Pennsylvania Medical Journal*, the *Journal of the South Carolina Medical Association*, and the *Texas State Journal of Medicine* were discussed from a symptomatic and therapeutic standpoint Dr Paul R. Hawley addressed the conference on "Medical and Hospital Care Prepayment Plans" and Dr James C Sargent, chairman of the American Medical Association Council on National Emergency Medical Service, delivered an address entitled, "Medical Care of the Nation in the Event of Another War"

On November 30 and December 1, 1948, your Secretary attended the Interim Session of the House of Delegates of the American Medical Association in St Louis, Missouri

Also, on December 1, 1948, your Secretary conferred for an hour with Mr Rolen Waterson, executive secretary of the Alameda County (California) Medical Association, regarding prevention of suits for malpractice

Since returning to New York your Secretary has attempted to accomplish the work which had accumulated during his absence He has attended committee meetings, yesterday and the day before, and on December 7 he attended a meeting of the Board of Censors of the Medical Society of the County of New York.

It was voted that the report be *approved* and the recommendations *adopted*

Treasurer's Report was accepted

Report of the Executive Officer

Dr Hannon stated he had been busy with his usual office routine, and preparing for future legislation

Activities of Committees

Legislation—Dr Holcomb, acting chairman, reported verbally as follows

I would like to give a report to the Council on our meeting of November 9 at the Hotel Roosevelt Those present were Dr Mott, Dr Mitchell, Dr Kenney, Mr Martin, and Mr Clearwater for our legal department, Mr Farrell, Dr Anderton, Mr Dwight Anderson, Mr Walsh, Mr Miebach, and Dr Hannon, our executive officer

At that time we took up the mandates from the House of Delegates

The first is our acknowledgment of the splendid work done by Mr Dwight Anderson and his staff

in preparing the *Legislative Manual* for county society presidents and legislative chairmen It is comprehensive, direct, and gives them a definite idea of the procedures necessary to introduce legislation in the State legislature

In the matter of the Wicks Commission Report, a letter was sent out, as approved by this Council. I have interviewed one of the staff of Senator Wicks' office, who has a great deal to do with, and is conversant with this report which deals with all of the professions He has gone over our communication, and he has given me the assurance that it is the intent of Senator Wicks to hear the various groups in Albany, when he will take up the specific objections we have made In other words, we will be given a hearing before legislation is enacted It is splendid that we have such assurance.

Dr Hannon has notified the New York State Dental Society that the Legislative Committee and the Council approved the proposed amendment to the Nursing Law favored by them You will recall that had to do with allowing a dentist to write or authorize treatment by nurses of a hospital patient

The first question we discussed was Section 94 which pertained to the abolishment of the Medical Practice Committee of the Workmen's Compensation Board. This was a mandate from the House of Delegates that the Legislative Committee have introduced a bill to abolish the Medical Practice Committee We have heard arguments for introducing this bill, and also for introducing a bill that would cut down the activities of the Medical Practice Committee

We find that it will be extremely difficult perhaps to get favorable legislation on the abolishing of this Medical Practice Committee. Apparently many of the legislators are kindly toward it I think the Department of Labor favors such a committee, but we will carry out the mandate of the House of Delegates and introduce the legislation

Dr Hannon has called my attention to the fact that last year, of the questionnaires he sent out to all the sixty-one county medical societies, only six were answered—all affirmative However, with such meager support you can see it will not be easy to get favorable legislation on this matter

On Section 106, the bill to amend the law for relief by injunction, we decided that the Tartikoff Bill, in which is eliminated certain words, such as "criminal," was the better bill of the two, and we recommend that bill. I might call your attention to the fact that this injunction bill is favorably reported by the Wicks Commission I have spoken to the member of the staff of Senator Wicks's office to whom I previously referred. He feels that there is a good chance of the injunction bill being adopted.

In our county society meeting this week I asked to have passed a resolution favoring this bill (the injunction bill) The society requested Senator Wicks and our assemblyman to introduce the bill themselves This resolution was passed and will be sent to the two legislators Of course, a copy will be sent to the Albany office for Dr Hannon.

You will recall that in the *Legislative Manual*—perhaps you have not read it yet—we have advocated the adoption of this plan of having county societies pass resolutions on important legislation and instructing their secretaries to send copies to their local legislators I feel that the legislators in Albany think of the medical profession as purely 22,000 votes I don't think they consider that we have a great deal of influence on public opinion, or that at least we are too lazy or too indifferent to exercise it. I feel if some of the county societies, when they receive information regarding important legislation, will carry on this procedure, we will exercise a direct influence on legislation in Albany

The podiatry legislation was another thing that came from the House of Delegates, a difficult problem When this resolution was referred to the Council protesting about podiatry legislation, the bill had already passed It had been signed by the Governor and is in force Our feeling is that to attempt to do anything about the podiatry law will only weaken our position in regard to other important legislative matters

It was voted that the Council expresses *approval* of the Legislative Committee's recommendation not to do anything regarding podiatry legislation unless a new bill is introduced

The question on the Lien Law, another mandate from the House of Delegates, was brought up at our county society and it was decided by your Legislation Committee to introduce the 1938 bill with changes that have been suggested. As you recall, the lien bill gives the physician a lien on judgments that before we have not had. Our county society has already passed a resolution favoring such a lien bill. It will be sent to our two legislators, but I am not sure just how that will work in the Legislature I think other professions are protected, but the medical profession is not—a crying shame!

There is also the question of another section to amend the law concerning group practice or partnership This was referred to the Council by the House of Delegates for action before the 1949 legislative session Lest there be criticism of the Legislative Committee and the Council for not taking decisive action in this matter, I believe it will be important that we discuss what has taken place regarding this proposed legislation and the reason for not attempting legislation at this time

There has been in this partnership legislation a great deal of conflicting and controversial opinion by influential groups, and our feeling is that this matter should be studied before we attempt to have introduced legislation which might be ill-founded and may meet with tremendous resistance

I am going to ask Dr Hannon if he will outline briefly the problem we have with this particular question.

Dr Hannon "The proposal is that we have amended those sections of the law that were passed in 1947, the so-called Milmoe-Griffith Bills, which were for the benefit of the Health Insurance Plan of New York City

We have had many discussions on this I have talked to Mr Clearwater and Mr Martin The general opinion is that unless we have a strong argument we will meet with defeat, which will just strengthen the present law It will be rather difficult, in view of the support that those bills had from many members of the medical profession in their passage, to get sufficient united support from all of the medical profession to make our attempts successful

This same matter is being considered by the Planning Committee, and they have several problems along the same line"

Dr Holcomb "I would perhaps, as all committees do when their hands are tied, look for support. My feeling would be that, if the Council could recommend that the Legislative Committee with the Planning Committee or other interested groups

should study this question further, in an attempt to have introduced satisfactory legislation that might have some possible chance of passing, it might be of help, before we get our next spanking from the House of Delegates I am not seeking an out, but I think you all realize that when we are confronted with insoluble problems, we simply wish to have the concurrence and help of the Council in carrying on further study before we can have introduced such legislation.

I would like to ask at this time that a motion be made that the matter of group practice, partnership, etc , be subjected to further study, because we are not able to initiate such legislation at this time "

It was voted that the matter of group practice, partnership, etc , be subjected to further study as it is not feasible to have legislation regarding it initiated at this time

The next matter is the question of Sections 116 and 117 pertaining to bills making x-ray diagnosis the practice of medicine, also pathology, physical therapy, and anesthesiology Our feeling in the Committee, after a long discussion on this matter, was that we did not seem to be getting anywhere You have four divergent groups, four groups that have different ideas, and we are asking for more time to confer with each one of these groups and get an expression of opinion as to the definite legislation that they wish to have introduced—the type of legislation

Our next matter is another resolution about the title of "Doctor" appended to your name, in your letters, and making it mandatory that that be applied on stationery, signs, or something of that kind The Legislative Committee felt that this should have further study as well, because it has so many implications

As regards the report of the study on the Domestic Relations Law, we were asked to have introduced a bill to shorten the period of time for the premarital blood test At the present time persons must obtain a license within thirty days after the serologic examination and physical examination Then they have sixty days in which to use the license That is a total of ninety days The suggestion was to cut that down to fifty-five days Studies were made of two hundred and fifty people, and it was found that 93 per cent were married within four weeks of the date of their physical examination, and about 55 per cent were married within two weeks Senator Desmond and the New York City Department of Health are considering again the introduction of such a bill Senator Desmond in a letter stated that, in light of the views expressed by well-informed doctors, it is probably not desirable that such a bill be introduced Our Legislative Committee decided to recommend to the Council that such legislation be not introduced this year

We had another question that was extremely important—making it compulsory to use iodized salt in New York State. We had several communications about the importance and uselessness of iodized salt. As a result it was decided that medical evidence does not warrant the passage of legislation making iodized salt mandatory in this State

Mr President, I ask approval of our recommendations.

It was voted that the recommendations of the Legislative Committee be *approved*

Constitution and Bylaws.—Mr Clearwater reported that the Ontario County Society proposed bylaws had been considered However, these included provision for associate members who would not be members of the State Society

After discussion, *it was voted* that this matter be laid over for a month, for further discussion and report

Mr Clearwater read the following correspondence

MEDICAL SOCIETY OF THE COUNTY OF ULSTER

My dear Dr Anderton

We have a problem to solve here in our County which you will be able to understand after reading the carbon copy of my letter to the Attorney General at Albany

Am also enclosing the reply from the Attorney General's office We do not have a paid attorney for our society and it was suggested that perhaps the Attorney for the State Society may take the matter up for us and let us know what the decision was in the case cited. If this cannot be done please advise what our next step should be

Thanking you in advance, I remain

Yours very truly
F H Voss, M D F A C P
Secretary

This is the letter to the Attorney General of the State of New York, dated November 16, 1948

My dear Sir

At the Comitia Minora (Executive Committee) meeting of the Medical Society of the County of Ulster held November 12th I was directed to address a letter asking your opinion on the following matter

The Comitia Minora desires to know if a physician, now a member is found to be enrolled in a political party which advocates the overthrow of the Constitution of the United States, and holds a membership card, proven by the U S F B I whether or not the said County Society may expel or cancel his membership?

Our Bylaws state that a physician must be a citizen and qualified by the N Y State Board of Regents

Respectfully submitted
F H. Voss M D F A C P
Secretary

The Attorney General's Assistant, Ruth Kessler Toch, replied to Dr Voss, November 19, 1948, as follows

I have your letter of November 16 1948.

Since the Attorney General is authorized to advise only officials and departments of the State government I regret that I cannot give you an opinion upon your problem I suggest that a private attorney could advise you on the scope of your disciplinary jurisdiction as provided in the Membership Corporation Law and the constitution and bylaws of your society

Informally and unofficially I call your attention to the case of *Ewald v Medical Society of the County of New York* 144 App Div 82 which contains some discussion on the subject.

Mr Clearwater That Ewald case is a general case that provides that medical societies have powers to discipline members, but this case is different There is this power to discipline a man who indulged in some real medical fraud, but that is not helpful to this particular problem.

One thing I noted is that they refer to a man who advocates the overthrow of the Constitution of the United States That is a little different from the overthrow of the government of the United States I don't know whether that is exactly what they intended to say, but it strikes me that this is a matter that could very well be referred to the Constitution and Bylaws Committee, to see if the State Society wishes to take action which might be a precedent in future matters of the same sort

After discussion, *it was voted* to refer this matter to the Committee on Constitution and Bylaws.

Supplementing this report, Dr Reuling stated that the Council at the meeting last month voted that

the matter of partial payment of county society dues and State assessment be referred to the Committee on Constitution and Bylaws. There has been no meeting of the Committee, and this is simply a report of the chairman to the effect that it is his feeling that our bylaws are perfectly clear in the matter May I read Bylaws, Chapter I, Section 1

> The active members shall be all active members in good standing of the component County Medical Societies. A copy of the roster of such members certified to be correct by the secretary of such County Society shall be evidence of the right of the members whose names appear therein to membership in this Society No member who has been dropped from the roll of a component County Society by reason of failure to pay dues shall be accepted by another Society except by regular transfer after reinstatement in the original Society

Section 2 The term "good standing" is hereby defined as

> (a) A member is in good standing when his dues to his County Society and the assessment of the State Society have been paid when they are due and payable. The dues year shall coincide with the fiscal year January 1 to December 31 of each year
>
> (b) A member whose dues and assessments are unpaid after May 31 of any current year is not in good standing He is in arrears for dues. He has lost his right to malpractice defense by Counsel of the Medical Society of the State of New York for any acts upon which suit may be predicated during the period of his arrears. This last is not recoverable, even when he becomes reinstated. Immediately upon payment of dues during the current year, his right to malpractice defense by Counsel of the Medical Society of the State of New York shall be restored from that date.

It is the opinion of the chairman of the Committee that the matter is entirely covered in our present bylaws and needs no further action.

It was voted that, as the matter is entirely covered in the present bylaws, no further action was needed.

Convention.—A letter from Dr Ingegno, chairman of the Subcommittee on Scientific Program of the Council Committee on Convention, regarding payment of expenses of certain speakers, was referred to the Convention Committee.

Economics.—Mr Farrell, director of the Bureau of Medical Care Insurance, made the following report

Mr Farrell attended the annual meeting of County Society Secretaries in Albany, November 4

November 15—Your Director conferred with the Executive Director of Genesee Valley Medical Care, Inc, Rochester, on the proposed State-wide contract He spoke to the senior medical students of Syracuse University College of Medicine, November 16, on "Voluntary Medical Care Plans and the Effect They Will Have on Economics in Medical Practice"

November 18—Mr Farrell attended the Middle Atlantic States Regional Conference of the Council on Medical Service of the American Medical Association in Philadelphia.

Mr Farrell was present at the Interim Session of the A.M.A House of Delegates in St. Louis, November 30 to December 3 Prior to the opening of the House, Mr Farrell appeared before the Council on Medical Service, November 29, and spoke regarding the position of the Council of the State Society on the proposals for Blue Cross-Blue Shield Association and Blue Cross-Blue Shield Health Service, Inc.

On November 30 by invitation, Mr Farrell attended a meeting of the State Society delegates to discuss the proposals for the Blue Cross-Blue Shield Association and the national insurance corporation

Mr Farrell was present December 1 at a meeting of the Reference Committee on Report of the Council on Medical Service Attached is a supplementary report of the Council on Medical Service on the A.M C P proposals to form a national insurance company which was unanimously adopted by the House.

December 2—Mr Farrell conferred with Dr Wertz, chairman of the Committee on Medical Service, and Dr Aaron, chairman of the Subcommittee on Medical Expense Insurance of the Committee on Economics in Buffalo, relative to the A.M.A. Interim meeting

SUPPLEMENTAL REPORT ON A.M.C P PROPOSAL TO FORM A NATIONAL INSURANCE COMPANY

I *Decision Up to the House of Delegates.*—Decision as to whether or not it is desirable to form a national insurance company or a reciprocal enrolling agency to supplement the present prepayment program is now before the House of Delegates for action at this present session The Council on Medical Service has accomplished the principal purpose of its preliminary report of October 2 1948 namely guarding and guaranteeing the right of the House of Delegates to speak for American medicine on this important subject. (A copy of the October 2 report, approved by the Board of Trustees was sent to each member of the House previous to this meeting.) The right of the House of Delegates to determine its own and medicine s course of action was sustained by representatives of the Council on Medical Service and representatives of various state plans at the A.M C.P meeting at French Lick, Indiana in October

II. *Physicians Should Study Proposal.*—The second purpose of the October 2 statement of the Council was to make it possible for physicians throughout America to have an opportunity to study thoroughly the proposal for a national insurance company

Although many state and county medical societies and groups have considered the insurance proposal and both proponents and opponents have been active in presenting their claims the medical profession is not yet fully informed in regard to the scope of the proposal. Less than three months ago the printed proposal of the Blue Cross-A.M.C P insurance company was distributed to the Blue Cross and Blue Shield plans. The printed proposal was not sent to all state and county medical societies at that time, and, therefore few state medical organizations have had the opportunity to take action.

III. *An Enrollment Agency Still Should Be Considered.*—At the June 19 meeting of representatives of state and territorial medical associations, it was evident that more complete agreement could be reached by the profession for the development of a national enrollment agency than for the formation of a national insurance company The Council reported this fact to the House of Delegates at its Annual Meeting in Chicago in June, 1948.

Sufficient detailed, concrete evidence has not yet been presented therefore it is not possible to rule out further consideration of an enrollment agency at this time. The Council is of the opinion that an enrollment agency, if it received the wholehearted support of the officers of A.M C.P would gain the acclaim of a great majority of physicians and not raise the doubts and raise the repercussions resulting from the present proposal.

IV *Bill of Particulars.*—Proponents claim a national insurance company is necessary to underwrite national accounts. In answer to a request for specific information concerning these accounts the Council received the following letter from Dr Hawley

> I have just received a letter from Mr Frank Van Dyk, manager of the National Enrollment Division of Blue Cross. When I requested this information from him, I also asked him to send it to you but, in case he has not, I am furnishing you a summary
>
> In the files of the National Enrollment office are recorded 1 955 national employers. We do not believe this *list to be complete.*
>
> Within the past two or three years Blue Cross has competed in the bidding for the coverage of 22 national employers who have a total of 214,450 employes, without success These have all chosen commercial insurance instead of nonprofit.
>
> In the same period Blue Cross has lost 42 accounts of national employers which they had previously had, and these accounts total 456 800 employes.

A statement from Mr Van Dyk has not been received and the Council is of the opinion that the data so far supplied is inadequate and hence suggests that the House should receive the answers to the questions set forth in the Bill of

Particulars before arriving at a decision. (A copy of the Bill of Particulars is attached, see Addenda 1.)

V *Alternate Proposal*.—The Council suggests that the House give consideration to further study of this entire subject by some impartial group such as the Brookings Institution.

VI. *Findings of Council*.—The Council is making independent inquiries relative to demands for national contracts (Findings of the Council to date appear in Addenda 2.)

The Council reminds the House that the Council's promotion of prepayment plans predates the activation of A.M.C.P. A M C P has been in operation only since December, 1946.

The cumulative experience and data pertaining to the individual plans together with that of A M C P are not yet sufficient to warrant the inauguration of such an irrevocable step as contemplated in the *A.M C P* proposal.

The Council is convinced that the primary strength of the voluntary plans lies in their flexibility. The present plans are meeting local needs for which they were developed. This is evidenced by the acceptance of these plans by the public. The Council is further convinced that the A M C P proposal would have an adverse effect upon the autonomy of the local plans.

VII. *Political Phase.*—The whole subject must be considered in the light of two national developments which in a way offset each other. (1) The re-election of President Truman with his program for compulsory sickness insurance. According to adherents of the *A M C P* plan this strengthens their belief that the creation of a national insurance company is now obligatory to further the voluntary prepayment movement and thereby offset socialized medicine; and (2) The proceedings of the Department of Justice against medical organizations in Oregon and California and rumored investigations elsewhere. This should be a warning to those who propose a national insurance company involving the present state and county medical society plans in interstate business, thereby making them vulnerable to government prosecution.

VIII. *Conclusion*.—In conclusion the Council points up the fact that in its opinion neither the election results nor demands by any group nor the fact that Blue Cross is going ahead with its own insurance company regardless of A.M.A. actions, has materially changed the fundamental principles and philosophy expressed by the Council in its statement of October 2.

It does believe that whether or not the House decides to approve a national insurance company that clarification of the functions and relations of A.M.A. and the A.M C P is vital to the future progress of the voluntary prepayment movement in America. The Council believes that a definite statement of the House delineating the functions of A M.C P as a trade organization which it was set up to be and of the Council as the policy making body is essential to a smooth-running combination to moment and impel the voluntary prepayment health movement which is so vital in the battle against socialized medicine. Hence the Council recommends that the House of Delegates

1. Approve the formation of a national enrollment agency and disapprove the proposal for the formation of a national insurance company.
2. Approve the statement delineating the field of operation of the Council and *A.M C P which was* presented to the Board of Trustees in December 1946 and approved by the Board but not approved by the A M C P Commission. (Copy is attached Addenda 3.)
3. Recommend that A.M C P make necessary changes in its Constitution and Bylaws which would take A.M C P out of the policy making field.
4. Reaffirm the Council's authority to promote the voluntary prepayment plan program in America.

ADDENDA 1.—BILL OF PARTICULARS IN REGARD TO NATIONAL ENROLLMENT

Those who advocate a national Blue Cross-Blue Shield insurance company (Blue Cross-Blue Shield Health Service Inc.) have made general statements that hundreds of companies and groups demand health coverage on a national, rather than a state or local basis. The Council on Medical Service believes that specific information should be made available to support these general claims.

Proponents for Proposals for the Blue Cross Blue Shield Association and Blue Cross-Blue Shield Health Service Inc have stated repeatedly that these organizational structures are necessary. They claim they are necessary for two reasons first, in order to bid successfully for the enrollment of employes of national employers and second to conserve and continue to service those national accounts which are now enrolled.

National Accounts are said to be those firms which have groups of employes in areas not served by a single plan.

This may be an unsatisfactory definition, but nevertheless it is used in the proposals.

There are many medical and nonmedical people (including some who have had the most extensive and comprehensive experience with prepayment medical care plans) who do not believe the agencies to be created by these proposals are necessary.

There are others who believe that a national enrollment agency might be desirable in order to assist in enrolling employes who may reside in areas served by more than one plan. Those in this category state that some enrolling agency other than an insurance company could coordinate enrolling and servicing activities and still retain the autonomy of state and local plans.

When literally interpreted these proposals are far reaching and constitute great concentration of corporate powers as well as powers to determine professional and other policies.

Before any further efforts are made toward forming either the organization called for in the proposals or an enrolling agency to which local plans could subscribe on a voluntary basis it seems that certain information is desirable. Documentary evidence is considered necessary in order to formulate sound planning.

The answers to the following items are minimal in determining a course of action.

1. Names and number of national accounts which now have their employes enrolled in Blue Cross Plans and which will discontinue such enrollment in the absence of the formation of Blue Cross-Blue Shield Health Service, Inc.
2. Number of employes and the number of dependents who will be affected by Number 1.
3. Names and number of national accounts which now have their employes enrolled in member *A.M C P* plans and who will discontinue such enrollment in the absence of the formation of Blue Cross Blue Shield Health Service Inc.
4. Number of employes and the number of dependents who will be affected under Number 3.
5. Names and number of national accounts which do not now have their employes enrolled in Blue Cross plans but which would enroll their employes if Blue Cross Blue Shield Health Service Inc became operative.
6. Number of employes and number of dependents who would be affected under Number 5.
7. Names and number of national accounts which do not now have their employes enrolled in member A.M C P plans but which would enroll their employes if Blue Cross-Blue Shield Health Service Inc became an operating insurance company.
8. Number of employes and number of dependents who would be affected by Number 7.
9. Number and names of national accounts which demand that all benefits (surgical medical and/or hospital) for employes shall be uniform regardless of the residence of the employe.
10. Number of employes and number of dependents involved in Number 9.

All of the above items involve primarily the attitudes of employers since the majority of such coverages are made available to employes by virtue of employer cooperation and in most cases employer contribution toward the costs.

Not so many years ago, the employer (or a committee representing management only) decided what, if any, types of social insurance benefits the employes would be eligible to receive. Management selected the plan or plans determined the amount to be contributed by the employer and announced the plan or plans and the net costs to the eligible employes. The employes were then free to participate or not participate as they wished.

More recently many of these employe benefits have become the subject of negotiation between management and labor. Sometimes the negotiations are carried on by a committee representing both labor and management. The labor members of such committees are selected by the employes themselves. In other cases unions (representing union leaders rather than union members) make specific demands relative to insurance benefits and employer contributions.

In addition to getting specific data on the ten above items it might be well to attempt to secure similar information with regard to employe and union demands.

To obtain expressions of the reactions of management and employers, it is suggested that the following agencies be contacted: United States Chamber of Commerce American Management Association, Industrial Relations Association, and the Federation of Employee Benefit Associations. As some of these sources are contacted, it is probable that many other valuable sources may be discovered and explored.

In order to make any undertaking complete factual data should also be requested from all recognized labor and employe organizations which are interested in the problems under consideration.

ADDENDA 2.—FINDINGS OF THE COUNCIL TO DATE

In addition to inquiries directed to A M C P the Council is exploring other sources of information relative to National Accounts.

Some of the organizations contacted include the Industrial Relations Association the United States Chamber of Commerce and certain insurance companies and associations. Time has not permitted a complete or thorough study of all possible sources of information.

(Continued on page 428)



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[Continued from page 426]

To date, replies to inquiries seeking specific data indicate there is no uniform pattern nor a uniform demand for social insurance benefits.

Some national employers have indicated a desire for uniform social insurance benefits for all employes, regardless of residence for the following reasons

1 Lower costs
2 The company transfers many of its personnel from branch to branch, and where uniform coverage is in effect, such benefits are not disturbed and
3 Many company employes and executives travel extensively These employes and executives know they are entitled to stipulated benefits regardless of where they may be when these benefits are needed

One large employer indicated that it was company policy to deal with insurance companies rather than Blue Cross. This company established this policy several years ago because the company did not believe in the avowed policy of Blue Cross—i.e. service benefits. This company operates in several areas and the branches are more or less autonomous The branches are permitted to negotiate their own social insurance programs.

Insurance companies which operate in all states are in a position to underwrite uniform benefits for employes of national employers Certain information received from one large insurance company indicates that it receives bids from employers to underwrite varying benefits for different employes

Recently an insurance association chose 25 representative business firms to determine the existence of uniformity of benefits pertaining to national accounts. Of these 25 firms, twelve companies employing some 426 000 persons had nation wide surgical benefit programs. The remaining thirteen firms employing over 2 160 000 persons did not have a nation-wide surgical benefit program.

A recent publication entitled *The Experience of 123 Companies Having Employee Benefit Plans* published by the Dartnell Corporation also indicates a lack of uniformity of benefits among the corporations included in that study.

The Council on Medical Service has received numerous letters and telegrams stating opposition to the Blue Cross A M C P proposal for a national insurance company and copies of resolutions from several county and state medical societies expressing disapproval of the proposal.

Some resolutions have approved the October 2 statement of the Council and the Board of Trustees. Other resolutions have urged serious consideration of the proposal by the House of Delegates of the A M A before any action is taken

One resolution encouraged the formation of a National Agency for Voluntary Health Service Plans, but did not approve the specific proposal under consideration.

There is a wide difference between the total enrollment of most Blue Cross plans and the total enrollment of coordinated prepayment medical care plans

In the aggregate Blue Cross enrollment exceeded coordinated prepayment medical care plan enrollment by approximately 18,000 000 on June 30 1948.

ADDENDA 3 —RECOMMENDATIONS OF THE COUNCIL ON MEDICAL SERVICE WITH REGARD TO A.M C.P

The A M C P —An organization of the plans themselves. Primarily interested in the internal problems of organization and administration. Its function might well be to assist plan managers in specific problems concerned with the details of actual plan operation and cooperation with the Council in the over all program.

Some of the subjects and problems with which A.M.C P should be primarily concerned are

1 Physical setup of plan offices and service equipment.
2 Personnel setup of plans
3 Standardization of methods or systems of keeping actuarial data on plan experience
4. Standardization of forms used by plans.
5 Uniformity of contracts and provisions for reciprocity among plans.
6 Methods and media to be employed in selling, etc.

The Council —The Council should assume the major role of promoter director and coordinator on a nation wide basis. Promotion includes

1 Urging all areas (through the state and county medical societies) to make some sort of adequate program of prepayment available to the public
2 Providing consultation and field service to the state and county medical societies including A.M C P in this field service where needed.
3 Assisting the state and county medical societies in educating the doctors (and the public) to the need for prepayment programs.
4. Providing publishable data and information on all of the plans to state and county medical societies to national publications groups and conferences and for A.M.A. publications.
5 Striving for a basis of cooperation among all voluntary agencies.

Direction includes

1 Over all studies on growth specific contract provisions (x ray etc) enrollment practices and other items in which over all suggestions and exchanges of ideas might be applicable
2 Setting of standards for plans and issuing the Seal of Acceptance ' including nation wide recognition of the Seal as the emblem of doctor-sponsored medical care plans.
3 Studying other programs of medical service including indigent care contract practice cooperatives, etc to evaluate them and determine their place if any, in the A M A. medical care program.

Coordination includes

1 Providing a clearing house for ideas and data including central file on factual information
2 Assisting A.M C P in selling its recommendation to the doctors and the plans.

Approved by the Board of Trustees December, 1946.

Dr Wertz, chairman, supplemented this report by stating that in spite of the action of the American Medical Association, the Blue Cross people are having a meeting in Chicago to consider the formation of a national health insurance company

Also the following letter was read and discussed

December 6 1948

Dr L. Howard Schriver President
Associated Medical Care Plans
550 South Wells Street
Chicago 6, Illinois

Dear Doctor Schriver

At the Interim Meeting held in St. Louis last week the American Medical Association rejected certain Proposals presented by Associated Medical Care Plans for the organization of an insurance company to provide combined hospital and medical coverage on a national basis. At the same time the A.M.A. reaffirmed its belief in voluntary prepaid medical care insurance conducted on the local level and pledged its support to every state medical society sponsoring medical care plans

It was our understanding that A.M C P would abide by the decision of the A.M A. in this matter Yet, the *New York Times* of December 3 1948 states

> Despite the A.M.A. s reaffirmation of its stand against socialized medicine and any form of compulsory sickness insurance the Blue Cross-Blue Shield Commission announced it would proceed with its plans to set up a national insurance company a nation wide, nonprofit organization to combat Federal plans. Dr Paul R. Hawley executive officer of the commission said the commission would meet December 9 in Chicago to lay the groundwork for a stock company to sell voluntary medical and hospital insurance in a package deal through Blue Cross units with the cooperation of Blue Shield organizations Blue Cross units now prepay hospital insurance Blue Shield is for the doctors fees.

As Blue Shield Commissioners from District No 2 may we protest the foregoing statement, call attention to the fact It was made without our knowledge or consent, and that it is contrary to the sentiments of the District.

We do not question the right of the Blue Cross Commission to arrange for hospital coverage on a national basis but we think participation of Blue Shield representatives in such a plan in order to provide medical coverage in a single package could rightfully be construed as a circumvention of the wishes of the medical profession expressed by the A.M A hence a breach of faith on the part of A M C P

Bearing in mind the recent rejection of a national medical plan it would be a great mistake to try to force doctors to take part in a national hospital plan (including medical services) for no plan hospital or medical can succeed without the free and wholehearted cooperation of the medical profession. This cannot be obtained through subterfuge or by defiance of the A M.A.

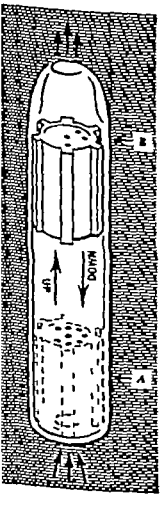
Therefore in order not to forfeit A.M A support of A.M C P and to assure cooperation between hospitals and the medical profession we suggest that the Blue Cross Commission be requested to postpone action on the matter of national hospital coverage pending an early joint meeting of the full membership of both Commissions If this is not agreeable to the Blue Cross Commission we recommend the Blue Shield Commissioners withdraw and have the meeting of December 9 go on record as being held by the Blue Cross Commission for hospital insurance purposes only We are aware that some plan executives represent both hospitals and medicine but in the present situation we believe it wise for them to act for hospitals alone.

May we request that you make these views known to our

[Continued on page 430]



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[Continued from page 428]

colleagues on the Blue Shield Commission Some idea of their reactions, also your own, would be greatly appreciated.

Sincerely yours
JOHN F MCCORMACK
Commissioner District No 2
FREDERIC E ELLIOTT M D
Commissioner District No 2

No action was taken

Dr Wertz, chairman, reported further that Governor Dewey was going to hold a hearing on sickness disability insurance legislation, and he felt that the Society should be represented

It was voted that the Council request Dr Wertz to represent the Medical Society of the State of New York at the proposed hearing regarding sickness insurance

Malpractice Insurance and Defense Board.—The Council approved the recommendation of the Malpractice Insurance and Defense Board that continuation of insurance be denied a certain member

Planning Committee for Medical Policies—Dr Kenney, chairman, reported that the Planning Committee at a recent meeting considered three major problems, the reorganization of the district branches, the relationship of hospitals to the practice of medicine, and the inclusion of medical services in hospital insurance contracts The Committee also discussed group practice

Publication Committee—Dr Kosmak, chairman, reported verbally as follows

The Publication Committee had its meeting yesterday afternoon with full attendance We were also favored by the presence of Dr Simpson

A number of routine matters were discussed, including that of a possible change in the format of the JOURNAL and its enlargement

After discussion, the Council *voted* to approve the recommended inclusion of the Union Health Center in the 1949 *Directory*

Public Health and Education—The report as distributed with the agenda is as follows

Activities of the Chairman

November 18—In New York City conferred with Dr Leonard Greenburg, director of the DIVISION of Industrial Hygiene and Safety Standards of the New York State Department of Labor and Chairman of the Study Committee on Industrial Health

November 19—Your chairman spoke on the subject "State Medical Society BCG Program" at the fall meeting of the Brooklyn Tuberculosis and Health Association in Brooklyn

November 30, December 1 and 2—Your chairman attended the Interim Session of the House of Delegates of the American Medical Association

December 7—In New York City attended the meeting of the Planning Committee

December 9—In New York City a meeting of the Council Committee on Public Health and Education and the Study Committee on Industrial Health was held Some of the officers of the Medical Society of the State of New York and representatives of the New York State Department of Health and the City of New York Department of Health were present

Also on this day in New York City a meeting of the Council Committee on Public Health and Education and the chairmen of all of the Subcommittees was held. Also present were some of the officers of the Medical Society of the State of New York and representatives of the New York State Department of Health.

Subcommittee on Blood Banks—Lester J Unger, M D, chairman, reported that the Subcommittee on Blood Banks of the Council Committee on Public Health and Education of the Medical Society of the State of New York has held three meetings The first was in Albany on July 28, 1948 Present were representatives of the Council Committee on Public Health and Education, officers of the Medical Society of the State of New York, of the Subcommittee on Blood Banks, and representatives of the New York State Department of Health, and the City of New York Department of Health A free discussion of the blood bank problems ensued, and all of those who attended expressed their views A representative of the State Department of Health presented recommendations for a State-wide blood bank program under the auspices of the New York State Department of Health

A meeting with representatives of the American National Red Cross took place on August 27, 1948, in New York Representatives of the same groups present at the first meeting were also present and representatives of the American National Red Cross, the North Atlantic Headquarters and the Rochester Regional Blood Bank attended At this meeting the representatives of the American National Red Cross discussed the policies of the National Blood Donor Program

The third meeting was held September 16, 1948, in New York. Those present were Dr John J Masterson, Dr Morris Maslon, Dr Eugene L Lozner, and Dr Lester J Unger Present as guests were Dr Ralph T B Todd, Dr I Jay Brightman of the New York State Department of Health, Dr Ernest I Stebbins and Dr G Foard McGinnes representing the American National Red Cross Dr Mitchell, because of illness, was unfortunately unable to attend. The purpose of this meeting was to explore the possibility of reconciling the differences between the policy of the Blood Program of the American National Red Cross and the so-called "proposed Westchester Plan" This was desirable because the official letter of our Society to the members appointed to this Committee stated that the resolution passed by the House of Delegates of the Medical Society of the State of New York on May 17, 1948, directed that your Subcommittee use as an example the "proposed Westchester Plan" This plan allocates certain duties to the American Red Cross

After considerable discussion it was asked whether or not any of the provisions of the so-called "proposed Westchester Plan" were acceptable to the American National Red Cross Dr McGinnes suggested that Dr Stebbins reply to this, and the latter informed your Committee that the "proposed Westchester Plan" was not acceptable, first, as a unit of the National Program of the American Red Cross, and second, that it was not entirely acceptable as a permissive program of the American Red Cross The following questions were submitted by Dr Todd for answer by the American National Red Cross

1 Is the fundamental philosophy of the American Red Cross Blood Bank Program to prepare for national emergency and civilian disaster?
(The answer was yes but with an added for civilians and when there was no disaster)
2 Does the A.R.C agree that the Civilian Blood Bank network be expanded sufficiently to accomplish this purpose?
3 Does the A.R.C agree to the deletion of the words free blood?
4. Will the A.R.C agree that all local publicity should

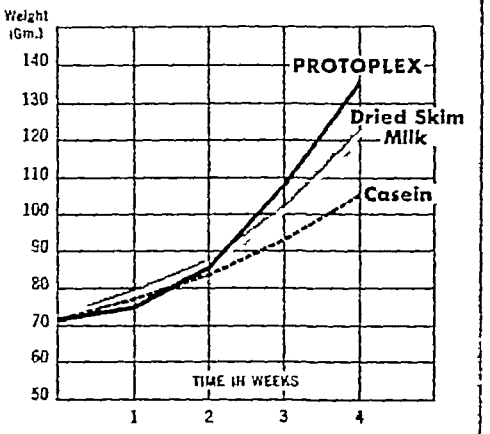
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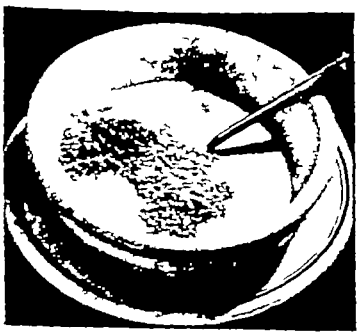
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[Continued from page 430]

be subject to mutual agreement between the local Red Cross Chapter and the local medical society?

5 Does the A.R.C agree that the initial contact shall always be with the local medical society when a local blood bank program is contemplated by the A R.C ?

6 Will the A R.C agree to foster active program of conference with local blood bank officials on the best ways of securing integration with and improvement of existing facilities?

7 Will A R.C agree to adjudicate local disagreements at state and national levels?

8 Will A.R.C agree that their blood bank projects will not undermine in any way, existing blood banks?

9 Why is it that the A R.C will not recognize the so-called proposed Westchester Plan as a permissive program?

After discussion of the Committee's recommendations, *it was voted* that the Council grant Dr Mitchell permission to send the report of the Blood Bank Subcommittee to the county societies, who request information, as a study report, specifically stating that it is not the full and considered opinion of the State Society

Subcommittee on Mental Hygiene—S Bernard Wortis, M D , chairman, reports as follows

I would like to submit this report in connection with what has been happening with the New York State Mental Hygiene Advisory Council

The Subcommittee on Mental Hygiene of the Medical Society of the State of New York recommended to the Governor that an Advisory Mental Hygiene Council be appointed to work with the Commissioner of Mental Hygiene of the State of New York This Council was appointed and your chairman has been your representative on this committee

The first meeting of the Advisory Council was held on September 27, 1948, in Albany Present at the meeting were Dr Howard Potter, New York, Judge Collins, Nassau County, Dr Sharp, Buffalo, Miss Marion McBee, New York State Charities Aid, Dr Gorham, formerly professor of medicine, Albany Medical College, Mr Ralph King, State Welfare Agency, Dr J L Poole and Dr S Bernard Wortis, New York City

The agenda of the first meeting included (1) discussion of the function of the Council, (2) organization and meetings of the Council, (3) the work of the Council in relationship to Federal Health Projects, (4) consideration of the expansion of the educational program in mental hygiene by the State, (5) methods of approach and work with the medical profession, and (6) general hospital planning and legislation indicated

In addition, there is some general discussion given to problems of child guidance clinics, the State hospital building program, and also placed on the agenda was consideration of the better care of psychoneurotics, alcoholics, seniles juvenile delinquents, and mental defectives This first meeting was largely devoted to organization plans of the Council and several of the community service projects were reviewed and approved by the committee

A second meeting of the Council was held October 25, 1948, in New York City At this second meeting, there was consideration of general plans to be applied in the development of the New York State program under Federal funds and a consideration of recommendations to the Council concerning priorities for the granting of funds in various geographic areas of the State The main discussion at this meeting centered around the program of psychiatric care and setting up psychiatric services in general hospitals There was consideration of this problem under the problems of medical care, financing, and legislative requirements.

A third meeting is scheduled for November 29, 1948, in Albany and I will continue to keep the Committee informed of the work of the State Advisory Council

Postgraduate Instruction.—Postgraduate instruction is being given in the following counties Chenango, Clinton, Cortland, Jefferson, Nassau, Richmond, and Tioga

Postgraduate instruction has been completed in the following counties Fulton, Lewis, Monroe, Onondaga, Orange, Oswego, Schenectady, Schoharie, Sullivan, Tompkins, and Warren.

Dr Mitchell called the attention of the Council to a very attractive little magazine which is gotten out by the New York State Health Department called *The Health News*

Public Relations.—Dr Winslow, chairman, submitted the following report

Immediately following the November meeting of the Council at which Dr Arthur D Jaques of Lynbrook, New York, was nominated for the American Medical Association's Outstanding General Practitioner's Award, the Public Relations Bureau issued a news release and biographic material regarding Dr Jaques to the daily press and wire services and the weekly press in Nassau County All daily publications were furnished with photographs and the weekly papers with mats Further information was given to the *New York Herald Tribune* which resulted in a full column feature story

On November 15, copies of the commemorative booklet, *20,000 Years of Service*, were sent to all libraries in the State (335) Previously they had been mailed only to those libraries in the towns where fifty-year men lived

The manual for chairmen of legislative committees was completed, bound in a special cover, and mailed to 61 legislative chairmen throughout the State Additional copies were mailed to members of the Council and Board of Trustees and to executive secretaries of county societies Copies also are being sent to members of legislative committees as their names are received There have been a number of requests for copies of the manual from medical societies of other states

Mr Philip J Smith, newly appointed executive secretary of the Medical Society of the County of Richmond, visited the office of the Public Relations Bureau on November 19 for the purpose of determining the best manner of coordinating the work of his society with the State Society Members of the Public Relations Bureau staff spent considerable time with Mr Smith making him acquainted with various procedures

Following repeated difficulty in obtaining physicians to appear on public platforms, radio programs, etc , to support the medical profession's views in opposition to compulsory sickness insurance, a conference was arranged between Mr Barton Pevear, executive secretary of the Medical Society of the County of New York, and members of the Public Relations Bureau staff Mr Pevear reported that the New York County Society is preparing to organize an active Speakers' Bureau whose aim it will be to have available at all times doctors who are willing and able to represent the medical profession under such circumstances Preliminary plans were made to gather factual material and to make all the resources of the State Society available in assisting the inauguration and operation of this project It is planned to extend the same services to other counties as rapidly as they organize their speakers' bureaus

[Continued on page 434]

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[Continued from page 432]

A request was received from Leo E Brown, executive assistant of the Medical Society of the State of Pennsylvania, to reprint the pamphlet *Dogs, Drugs and Doctors* Permission to reprint was granted with the understanding that credit would be given to the Medical Society of the State of New York

The Auxiliary booklet, *The Ladder*, was distributed to all members of the Council and Trustees, according to the Council resolution of November 11

The booklet, *Myth and Menace*, opposing the licensure of chiropractors, and a reprint of the booklet, *Medicine Men and Men of Medicine*, are on the press

During November, Mr Walsh spoke on legislation to the members of the Kings and Monroe County Auxiliaries He also attended three meetings of the Nassau County Speakers' Bureau and provided material and suggestions to both the Nassau and Monroe County Speakers' Bureaus

The following postgraduate sessions held under the auspices of the Committee on Public Health and Education were covered by releases to the press Alleghany, Jefferson, Lewis, Monroe, Nassau, Onondaga, Orange, Richmond, Schenectady, Schoharie, Sullivan, Tompkins, and Warren counties

Veterans Administration, Liaison with the — Dr Bauckus, president of the Veterans Medical Service Plan of New York, Inc , sent the following telegram, dated Buffalo, New York, December 8, 1948

> Dr Ethan Flagg Butler telephoned me today asking we continue contract until March 31 1949 He states this will give more time for headquarters to consider policies which were taken up at A M A meeting on Monday with Dr Magnuson I am in favor of doing this Please present to Council

It was *voted* that the Council *approve* continuation of the existing contract between Veterans Medical Service Plan of New York, Inc , and the United States Veterans Administration until March 31, 1949

War Memorial —Dr Anderton stated Dr Rooney requested him to report on account of his inability to be present, and state that letters and forms requesting proof for beneficiaries have been mailed Further action by the War Memorial Committee will take place as soon as replies have been received There are about sixty beneficiaries for the War Memorial Fund to be helped with their education

Woman's Auxiliary —Dr Beekman reported that there had been a meeting December 8, attended by Mrs Neptune and other members of the Board to discuss some of their problems on administration

Workmen's Compensation —Dr Kenney, chairman, reported verbally as follows

The activities of the Council Committee and the Bureau of Workmen's Compensation are proceeding in a rather happy way We are not settling all of the problems that are before us immediately, but the spirit of cooperation and effort seem to be improved judging from my observations as I go about the State, as I have been in the last few months

Last Friday in Buffalo, we had a meeting with the Conference Committee on Workmen's Compensation Problems which is a working group of the representatives of the county medical societies in the Eighth District of our State Society A meeting, with Miss Mary Donlon as chief speaker, was held last Friday night It was attended by the president of the Erie County Medical Society, Dr Bauckus, Dr Wertz of our Council, and by presidents, secretaries, and chairmen of the committees on workmen's compensation of these different county medical societies Some 25 or 30 people were there

It was an exceptional meeting Miss Donlon talked for a full hour She was asked a good many questions, and the whole spirit of the meeting was good and engendered a better feeling I am sure. A good many of the men met Miss Donlon informally after the meeting and sat down and talked with her about various problems that she could not cover during the meeting

The gist of Miss Donlon's paper and the chief thing she stressed was what she was pleased to call the "plus" services that doctors can render in workmen's compensation It is a subject upon which I have expressed myself in some remarks that I made around the district branches She feels that the doctor has a social service to render in workmen's compensation over and beyond the mere rendering of medical care and being remunerated for it She brought this out in a very pleasant way, and the attitude that she takes in this whole problem of workmen's compensation is that she is definitely against having anything happen which will lead to the breakdown of this social experiment in medical care She is with the Medical Society in that respect Her remarks got a very good press

I was accorded the privilege of speaking for some twenty minutes and discussed mostly the problems confronting the doctors and our own problems of acting as liaison between Miss Donlon and the group

I thought her reaction was very good to this meeting, and she expressed the hope, after the legislative session and the stress of work in Albany, of appearing before similar groups in other parts of the State to discuss mutual problems I think that is a feature in our relations that, if carried out, will be helpful to us

We had a meeting on Monday afternoon of this week of the Advisory Council to the Workmen's Compensation Board This meeting particularly was in reference to proposed legislation which the Labor Department is interested in We also discussed matters affecting the insurance carriers, particularly in regard to their increasing costs in meeting the problems of care to the injured workmen, both hospital and medical

Just a brief word in connection with the fee schedule This, as you know, has only been in existence about two months, and there are a great many problems of interpretation There is to be a meeting on December 13 with the chairman of the Board and the Advisory Council that drew up the fee schedule, on which the State Society is represented by Dr Van Etten and Dr Anderton Our director, Dr Kalish, has painstakingly prepared a very excellent brief of the complaints that have come in from all around the State and also matters that he has been able to detect himself in the law, which will come before that meeting

This new fee schedule is going to mean an increase of some ten million dollars a year in medical fees that the doctors of the State will receive over what they have been getting This increase is in addition to and beyond what the costs are for hospitals These costs have gone up so rapidly it is a matter of great concern and is under study at the moment with Miss Donlon I think she intends to try to have a bill introduced at this session of the Legislature giving her rather broad authority to adjust hospital fees to meet rising costs

Another thing for your information is that for

[Continued on page 436]

For surface infections . . .



The common occurrence of mixed infections in burns and chronic wounds suggests the need for an antibacterial agent with a wide antibacterial spectrum Furacin, effective against the majority of wound bacteria in vivo, is receiving favorable and steadily increasing mention in the literature for such conditions * Furacin N.N R., brand of nitrofurazone, is available as Furacin Soluble Dressing and as Furacin Solution both containing 0.2 per cent Furacin ® These preparations are indicated for topical application *in the prophylaxis and treatment of infections of* wounds, second and third degree burns cutaneous ulcers, pyodermas and skin grafts *Literature on request*

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[Continued from page 434]

1948 there were over 800,000 new compensable cases in this State That gives you some idea of the vast size of the problem that is before all those concerned in the administration of workmen's compensation in this State

Miss Donlon brought out the fact that increasing costs of administering workmen's compensation both by her Board and by the carriers could be minimized if prompt reporting of accidents and compensable illness was done according to the legal requirements

It seemed to be the consensus of opinion of the Advisory Council in Buffalo the other afternoon that some kind of an official statement on the need for prompt reporting should be drawn up by the chairman of the Board and circulated to everybody concerned, the doctors, the carriers, and everybody else Miss Donlon accepted that suggestion with favor, and I think she will have such a statement prepared, but I would like to have you carry back to your county societies the word, which Dr Kaliski has as you know been continually stressing, that it is important to file the C-104 and C-4 forms promptly The C-104 form is usually the first notice of accident or compensable illness that the Workmen's Compensation Board or carrier gets The workman does not begin to receive his compensation until after the report is filed and processed That means that many times these injured workmen go on public welfare or temporary State care, pending the arrival of their workmen's compensation check Any tardiness is apt to increase costs tremendously

There is one thing I would like to mention, and that is next Monday, Tuesday, and Wednesday at the Association of the Bar of the City of New York, 42 West 44th Street, in Room 10, will be held the annual hearings of the Joint Legislative Committee on Industry and Labor, of which Mr Mailler is chairman Matters concerning workmen's compensation legislation will be discussed at four o'clock on Monday afternoon On Tuesday the hearings will be given over to rehabilitation and an inspection of clinics On Wednesday, I believe there will be further proposals regarding rehabilitation I would like to call to your attention the advisability of this Council's being represented in these various sections or somebody at least being there to present our views I propose to attend the meeting on Workmen's Compensation, and Dr Kaliski will certainly be there, but I thought maybe a representative from Dr Mitchell's committee or from some other source should attend

I will submit without reading this formal report from Dr Kaliski I don't think there is anything in it you can't read in due course

The report is as follows

REPORT OF COUNCIL COMMITTEE ON WORKMEN'S COMPENSATION

We have just been informed that the chairman of the Workmen's Compensation Board has called a meeting of the Advisory Committee on the new fee schedule to consider all inquiries and complaints concerning same at a meeting to be held on December 13 1948. This bureau has sent to the chairman our views suggestions, and recommendations concerning the fee schedule promulgated on September 1 1948 and there are certain recommendations concerning fees for all general practitioners promulgated on June 1 1947 Dr Nathan B Van Etten chairman of the Advisory Committee has informed us that he does not intend to remain a member of that Committee Dr W P Anderton is our representative on the Committee.

Examinations in diagnostic roentgenology and radiation therapy were held at the New York University Medical School on Tuesday November 30 1948. Three applicants from Queens County were examined. Two applicants failed to make a passing mark, and one passed for the D-2 rating.

We have received a communication from Dr E C Waterbury secretary of the Orange County Medical Society concerning an item which appears on page 7 of the fee schedule referring to the authorization of physicians by the chairman of the Workmen's Compensation Board. The statement referred to indicates that a physician who is desirous of rendering medical care shall first apply to and receive authorization from the chairman of the Workmen's Compensation Board. Dr Waterbury's inquiry asked whether this supplanted the provisions of the law which provide that a physician shall apply to the medical society in all counties having a population of less than one million while in the four counties having a population of one million or over, application is made and considered by the Medical Practice Committee. It was our opinion that while the authority to authorize physicians to render medical care under the Workmen's Compensation Law undoubtedly resides in the chairman of the Workmen's Compensation Board, the mechanism by which a physician may be authorized provides that he shall, in counties of less than one million population, first apply to the medical society which after examining the physician's qualifications shall make recommendations to the chairman of the Board upon which she acts. This procedure has not been changed nor has the law been modified. The entire matter will be drawn to the attention of the chairman at the proper time.

The routine work of the Department continues to be fairly heavy particularly in view of the uncertainty on the part of physicians as to the application of certain fees in the new fee schedule. It is our hope that the conference we have recommended for some time which will be held shortly, will result in prompt easement of the situation

Dr Kenney read the following letter from the Medical Society of the County of Albany

The General Practice Committee of the Medical Society of the County of Albany met in September and again in November It reviewed the new Medical Fee Schedule of the Workmen's Compensation Board issued under date of September 1 1948

It is obvious that the services of the general practitioner are not considered of great value. Unless approved for specialty rating his fees are covered in the first nine lines on page 11 first visit, office call including examination and report $3 50 office call $2 50 and hospital call, $2 50 and so forth the greatest fee being $15 as an assistant to a surgeon—and that only where there is no intern available The fee for office visits for compensation cases is not equal to the fees charged private patients in our county

The minimum fee schedule the general practitioner finds is also the maximum fee schedule—as interpreted by the insurance carriers The majority of the work done by the general practitioner is done at his office where he supplies the space equipment materials and nursing services in which case there are no hospital charges.

The Committee does not in any way wish to object to the fees allowed physicians with specialty ratings. It feels that they are justly entitled to additional fees for specialized services.

In reviewing the fee schedule for specialties on page 62 it is noted that complete office examination and written report $10 to $20 subsequent hospital or office visits $5 to $10 with pages of fees allowed for various procedures varying in amount from $10 to $300

Another comparison on page 21 reveals that the rates allowed for osteopaths are on the average, $1 00 more per visit than for the general practitioner This to say the least, is not flattering.

Records indicate that 75 to 80 per cent of the professional care rendered under workmen's compensation is still given by the general practitioner It is easy to understand how specialist fees may be raised leaving the rates of the general practitioner at their present minimum without greatly affecting the insurance payments for medical care. Yet, it is known that insurance rates to employers have been markedly increased in the last year There have also been increased benefits to the claimants. The Committee feels that somewhere along the line the general practitioner's interests must be considered.

Therefore the General Practitioners Committee of the Medical Society of the County of Albany recommends that:

1 The Society hereby recognize the inequities in the Medical Fee Schedule as they apply to the general practitioner

2 The Workmen's Compensation Committee be directed to review the fee schedule for the purpose of making recommendations for the correction of these inequities and that the Committee itself be enlarged to have greater representation by the general practitioner

3 The sentiment of this Society be reported to the Workmen's Compensation Committee of the Medical Society of the State of New York to Dr David J Kaliski director of the Bureau of Workmen's Compensation to Mary Donlon chairman of the Workmen's Compensation Board and a copy be sent to the secretary of each county society in the State of New York.

[Continued on page 438]

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1. Carroll, G., and Allen, H. N.: J. Urol. 55: 674 (1946). 2. Merricks, J. W.: West Virginia M. J. 44: 157 (1948). 3. Scudi, J. V., and Duca, C. J.: J. Urol. (to be published).

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[Continued from page 436]

I would presume the Council will want to refer that in due course to this Committee, but I thought it should be read at this time

I would just like to comment on that, because the subject, long before I knew about this resolution, was discussed in Buffalo, too There seemed to be among the discussions from the practitioners there the opinion that too much stress has been put upon specialists and G P 's have been brushed over a little bit Dr O'Gorman talked quite a bit about it, as did Dr Dayton of Niagara, Dr Bell of Olean, and a number of others, and they were very critical of general practitioners' fees

This is the end of the year and the cooperation I have had from the director of the Bureau as evidenced by my personal experience and by the many comments and communications I have received from practitioners around the State upon the promptness and dispatch of his handling their complaints and his great assistance in getting their bills adjudicated is much appreciated I would like to record my thanks as chairman of the Committee for the cooperation he has tendered to me

The Chair referred the letter from Albany County on general practitioners care to the Workmen's Compensation Committee

Report of the Delegates to the 1948 Interim Session of the American Medical Association.—Dr Winslow presented the following report

The following delegates from the Medical Society of the State of New York attended the Interim Session of the House of Delegates of the American Medical Association at St Louis, Missouri, on November 30 and December 1, 1948 Leo F Simpson, Herbert H Bauckus, W P Anderton, Albert F R Andresen, Clarence G Bandler, James R Reuling, Floyd S Winslow, Ralph T B Todd, O W H Mitchell, Edward P Flood, W Guernsey Frey, Jr , John J Masterson, J Stanley Kenney, Thomas A McGoldrick, Andrew A. Eggston, Thomas M D'Angelo, Peter J Di Natale, George W Kosmak, Stephen R Monteith, Joseph P Henry, and Scott Lord Smith

Dr Monteith was a member of the Reference Committee on Rules and Order of Business, Dr Kosmak was chairman of the Reference Committee on Medical Education, Dr Andresen was on the Reference Committee on Hygiene and Public Health, Dr Winslow was chairman of a Reference Committee on Amendments to Constitution and Bylaws, Dr Flood was a member of the Reference Committee on Credentials, and Dr Kenney was chairman of the Reference Committee on Executive Session Also in attendance at the House of Delegates were Dr Chas Gordon Heyd, Dr Edward R Cunniffe, Dr Louis H. Bauer, Dr Frederic Elliott, Mr Dwight Anderson, Mr Frederic Miebach, Mr Thomas E Walsh, and Mr George P Farrell

On Tuesday, November 30, 1948, your delegates, the above-mentioned gentlemen, and Mr John McCormack, vice-president of United Medical Service, met from 5 05 until 6 P M Discussion was held regarding proposed amalgamation of Blue Cross and Blue Shield insurance plans in a national insurance corporation, and the proposed $25 per capita assessment of members of the American Medical Association The House of Delegates voted unfavorably upon a national insurance company but proposed a national recruitment office for hospital and medical care prepayment insurance The House also voted that an individual assessment of $25 each be levied by the Board of Trustees of the American Medical Association upon each member

Your delegates were diligent in their attendance at the meetings and competently represented our Society

American Medical Association Assessment.—Dr Anderton stated that a telegram had been received from Dr George F Lull, secretary of the American Medical Association, dated December 7, 1948, as follows

> The American Medical Association House of Delegates on December 1 created a committee to guide a nation wide plan of education on the progress of American medicine, the importance of the conservation of health and the advantages of the American system in securing a wide distribution of a high quality of medical care. As a first request of the Committee it is urged that you have a member of your Society preferably their family physician talk to your national legislators in order to inform them of the inferior type of medical care of the public that would result from the proposed compulsory sickness insurance program. The doctor who does the interviewing should have authoritative information on the subject. In order to better inform the person a booklet entitled, *Uncle Sam M.D* will be sent to every doctor in the United States as background material for informing the public

As a result of that telegram, at the request of a couple of the other gentlemen who were interested in it, he telephoned to Dr Lull and was told that the booklet had been presented at the Conference on Public Relations which met before the House of Delegates He stated that the booklet had gone to the printers but would not be ready for distribution for a couple of weeks

The second telegram, dated December 8, reads

> Recent interim session of House of Delegates unanimously decided to assess each member of the American Medical Association $25 You are requested to collect this assessment through your county units or any other way you desire Bill Association for any extra expense in connection with collection

After a lengthy discussion as to how the assessment should be collected and whether it were mandatory,

It was voted that the decision as to the best means of collecting the American Medical Association assessment of $25 be referred to a special committee composed of the officers and trustees to study and report at the next Council meeting

It was voted that the Medical Society of the State of New York request the American Medical Association to send a communication to each member of the American Medical Association explaining the purposes of the $25 assessment.

New Business

Appointments —The appointment by the president of Dr Elton R Dickson as a member of the Council Committee on Public Relations in place of Dr Dan Mellen was approved.

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NECROLOGY

Ina Van Deerhoof Burt, M D , of Phelps, died at the age of eighty-one on January 2 Dr Burt, who received her medical degree from the Woman's Medical College of the New York Infirmary for Women and Children in 1895, was retired. She was a member of the New York State and Ontario County Medical Societies and the American Medical Association.

John Dugan, M D , eighty-two, died on November 12 Dr Dugan, a former resident of Geneva and Albion, was graduated from the University of Buffalo, School of Medicine, in 1896, and at the time of his death was a member of the New York State and Orleans County Medical Societies and the American Medical Association

Cyril Dustan, M.D , an authority on the health hazards in the handling of beryllium, a metallic element used in industry and in the development of atomic energy, died of a heart attack at his Brooklyn home on January 21 Dr Dustan, thirty-four years old, received his medical degree in 1943 at the Long Island College of Medicine He was a research associate at the Columbia University School of Public Health and, while at Columbia, had received the Fleischman Foundation medical scholarship His report on the medical aspects of beryllium poisoning, based on a year's study recently made for the Atomic Energy Commission, was almost complete, and he was preparing to leave to join the staff of the Tennessee Valley Authority to continue his research on beryllium He had been a member of the American Medical Association and the New York State and Kings County Medical Societies

Victor J Fingar, M D , forty-one years old, died at his West Ghent home on January 10 Dr Fingar, assistant medical director of the Equitable Life Assurance Society, was graduated from Albany Medical College in 1932 He served as a major in the Army Medical Corps in World War II and was attached to the Twelfth Air Force in North Africa and Italy Dr Fingar was formerly a general practioner in Brasher Falls, serving there also as a medical examiner for the Equitable Life Assurance Society

LeRoy Clarence Green, M D , died on December 29 at his home in Ashville He was seventy-seven years old Dr Green, a graduate of the University of Buffalo, School of Medicine, in 1895, interned at the Buffalo General Hospital and worked for a time under Dr Roswell Park, noted surgeon He had practiced in Chautauqua County for over half a century and was recently honored by the New York State Medical Society for his fifty years of service Dr Green practiced in Panama from 1897 to 1922, when he moved to Ashville He was a member of the New York State and Chautauqua County Medical Societies and the American Medical Association

Reuben Paul Higgins, M.D , sixty-eight, died on January 13 A physician in the town of Cortland, he received his medical degree from Johns Hopkins University, School of Medicine, in 1905 Dr Higgins served as chief ophthalmologist on the staff of the Cortland County Hospital. A former president and secretary of the Cortland County Medical Society, Dr Higgins was a diplomate of the American Board of Ophthalmology and a fellow of the American College of Surgeons He was also a member of the American Academy of Ophthalmology and Otolaryngology, the Central New York Eye, Ear, Nose and Throat Society, the American Medical Association, and the New York State and Cortland County Medical Societies

Louis Morgan Mooney, M.D , eighty-seven-year-old retired physician, died at his New York home on January 19 Dr Mooney was a graduate of the University and Bellevue Medical College in the year 1899 He had served as a consultant in gastroenterology at the Misericordia Hospital and had also served on the staffs of Polyclinic and St. Elizabeth's Hospitals Dr Mooney was a member of the New York State and County Medical Societies, the Celtic Medical Society, the Valentine Mott Medical Society, and the American Medical Association

Alfred Carlyle Prentice, M.D , of Endicott, for many years a practicing physician in New York City, died on January 14 at the age of seventy three Dr Prentice received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1901 and served his internship at Roosevelt Hospital

Dr Prentice was formerly associate surgeon at Vanderbilt Clinic and French Hospital and surgical lecturer at Polyclinic Hospital He had practiced in recent years in Endicott where he was an associate surgeon of Ideal Hospital He was also resident staff surgeon of Wilson Memorial Hospital, Johnson City

A former secretary of both the New York County Medical Society and the Physicians Mutual Aid Association, he was also a member of the New York State, Broome County, and Benjamin Rush Medical Societies, the Association of Military Surgeons, and was a member and former delegate of the American Medical Association He also served at one time as surgeon major of the Seventy-first Regiment, New York National Guard

Michael Napoleon Ratzan, M D , died at his home in Brooklyn on January 20 His age was sixty-seven He was graduated from the Medico-Chirurgical College of Philadelphia in 1906 He served on the staffs of Unity, Williamsburg, and Crown Heights Hospitals and was also active in research in cancer and diabetes Dr Ratzan founded the Brooklyn Cancer Society in 1928 and became its first president.

Alvah H Traver, M D , who had practiced medicine and surgery in Albany for more than fifty years, died at his home on January 22 He was seventy-three years old Dr Traver, a graduate of Albany Medical College in 1898, was chief of staff of the Child's Hospital, associate surgeon on the staff of Albany Hospital, and associate professor of surgery, Albany Medical College During the recent war he was an examining physician for selective service boards in upper New York State and had since served with the Veterans Administration Dr Traver was a fellow of the American College of Surgeons and also a member of the New York State and Albany County Medical Societies and the American Medical Association

Gilbert J Van der Smissen, M D , of the Bronx, died on January 20, 1949 He was seventy five years old Dr van der Smissen was graduated from the College of Physicians and Surgeons, Columbia University, in 1895 and interned at Lenox Hill Hospital He was a member of the New York State and Bronx County Medical Societies and the A M A

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MEDICAL NEWS

$32,000,000 Architectural Program for NYU-Bellevue Medical Center

DETAILS of new definitive architectural plans for the new University section of the New York University-Bellevue Medical Center have been announced The new plans, which are the result of several years study, supersede the preliminary architectural plans announced earlier for the Center The University's new cost estimates for the Center are nearly twice those previously announced and are due both to the expansion of the Center's program and to the rise in prevailing construction costs during the past three years

The plans for the University section of the Medical Center include facilities for two medical schools, a 600-bed University Hospital designed primarily to serve patients in the middle-income brackets, and related clinics The project also includes provision for a program of postgraduate medical education which has been underwritten by an $8,000,000 grant from the Samuel H Kress Foundation, announced by the University Monday, January 10 In addition to the other facilities, the new University section of the Center will include space for the Institute of Rehabilitation, a hall of residence, and an alumni hall auditorium

MEETINGS

FUTURE

American College of Surgeons, New York and Brooklyn Fracture Committee

The fourteenth annual Fracture Day sponsored by the New York and Brooklyn Fracture Committee of the American College of Surgeons will be held Saturday, February 26, 1949, in the Einhorn Auditorium of the Lenox Hill Hospital, New York City

The program will open at 9·00 A.M , with the chairman's address by Dr Preston A. Wade Papers to be presented during the morning session include "A New Forceps for Grasping and Holding Bone Plates," Dr Meyer Stone, "Mode of Treatment of Fractured Neck of Femur in Two Children," Dr A. Della Pietra and Dr David M Bosworth, "Unusual Fracture Subluxations of the Shoulder," Dr Frederick Thompson and Dr Edward Winant, "The Misuse and Use of Metal for Internal Fixation of Fractures," Dr Edwin F Cave, "Use of Kuntscher Nail," Dr Harold A. Sofield, and "Observations on Results of Shoulder Cuff Repair," Dr Harrison McLaughlin and Dr Theodore Asherman

At the afternoon session, scheduled to begin at 2·00 P.M , Dr Robert H Kennedy will give a report of the National Fracture Committee proceedings Papers to be presented include "Blood Supply and Its Relation to Bone Healing and Nonunion," Dr Charles Burbank, "A Method for Further Evaluating Joint Injuries," Dr John Royal Moore, and "Results of Three-Year Follow-up on Fracture Dislocations of the Hip Joint," Dr George O Eaton.

Niagara Falls Academy of Medicine

The Third Annual Clinical Day of the Academy of Medicine of Niagara Falls will be held on March 5 at the Hotel Niagara, Niagara Falls.

The program of lectures to be presented during the day, starting at 9 30 A M , will include the following "Management of the Failing Heart," Dr Harry Gold, New York City, "The Value of X-ray Examination of the Pregnant Woman," Dr Paul A Bishop, Philadelphia, "The Role of Cervical Smear in General Medical Practice," Dr Ernest Ayre, Montreal, "The Use and Abuse of Sex Steroids," Dr L J Bailey, Detroit, "The Diagnosis of Angina Pectoris," Dr Lewis M Hurvtall, Boston, and "Low Back Pain," Dr Edward L. Compere, Chicago

New York Tuberculosis and Health Association

On March 8, the annual conference of the New York Tuberculosis and Health Association will be held at the Hotel Statler, New York City Authorities on the various phases of tuberculosis work, social hygiene, and health education will present papers at the morning, afternoon, and luncheon sessions Also, election of officers of the Tuberculosis Sanatorium Conference of Metropolitan New York, which will meet simultaneously, will be held at that time

National Society for the Prevention of Blindness

The theme of the three-day national conference of the National Society for the Prevention of Blindness will be "The Battle Against Blindness—The Next Forty Years " The meeting will be held at the Hotel New Yorker, New York City, on March 16, 17, and 18, and the subjects eye problems in middle life, eyes of children and adults, vision in industry, medical advances in sight conservation, and glaucoma—a community problem, will be discussed Details of the program may be obtained from the Society at 1790 Broadway, New York City

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Microscopic examination of sputum for cancerous cells gives a positive diagnosis in from 60 to 88 per cent of lung cancers and is an essentially desirable technic for discovering lesions of the upper lobes of the lungs, they report. Drs. Bergmann, Shatz, and Flance examined the sputum of 158 patients. In three cases a diagnosis of cancer was made by sputum examination at a time when the clinical diagnosis was tuberculosis or wavered between tuberculosis

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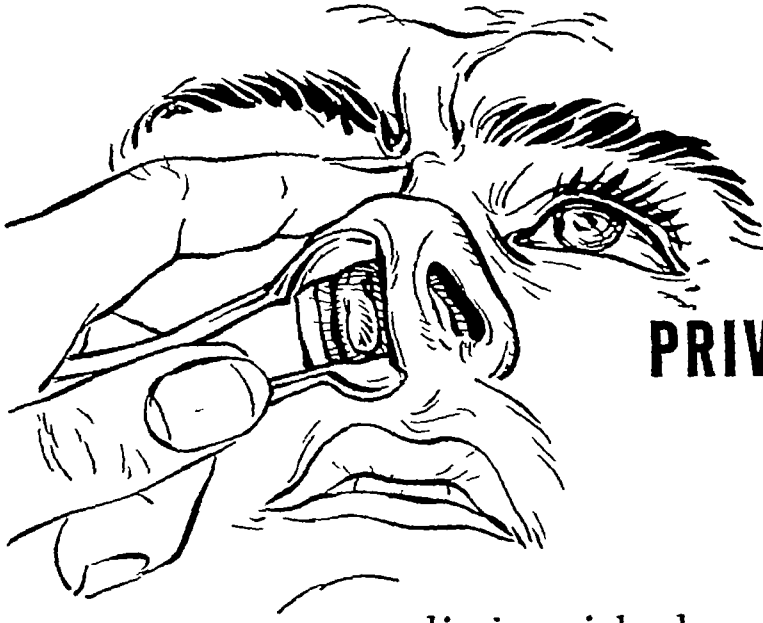
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*Frazer J G : The Golden Bough, vol 1, New York, Macmillan & Co., 1923



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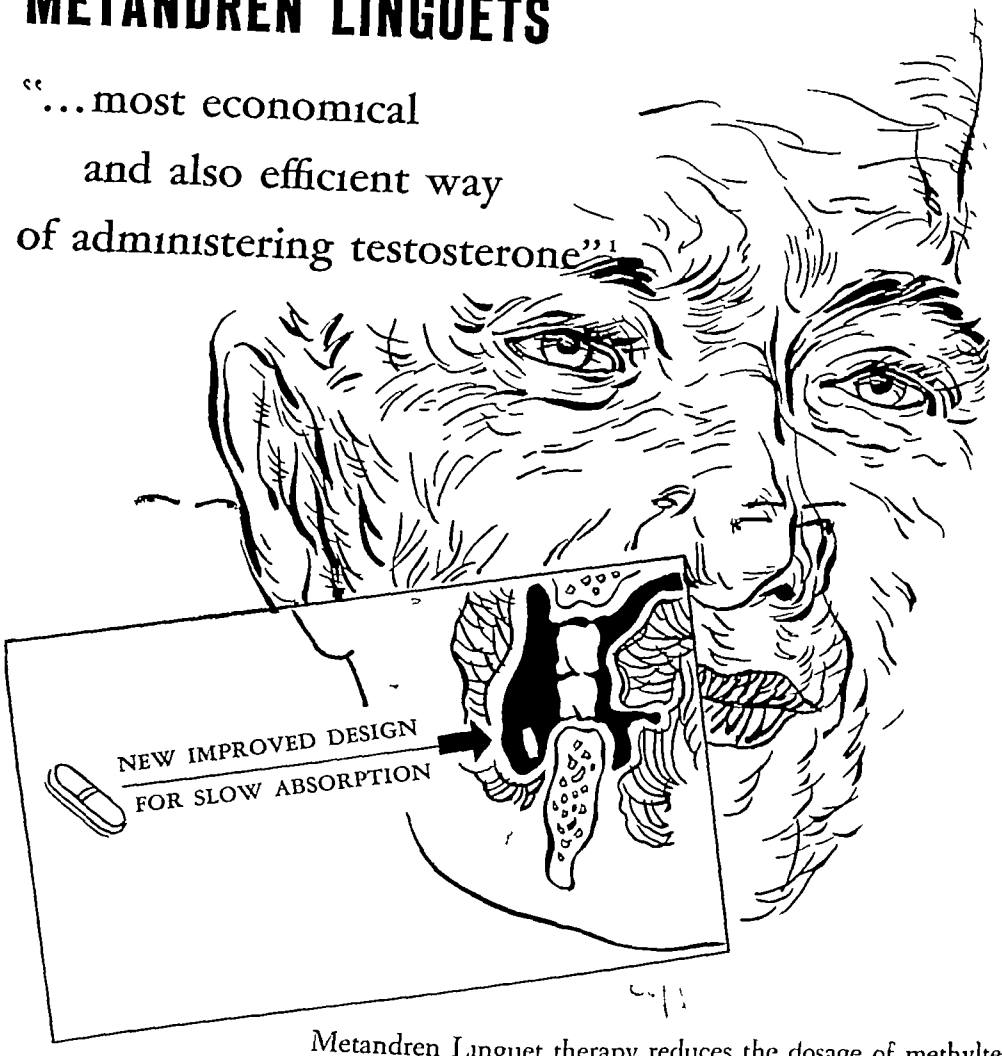
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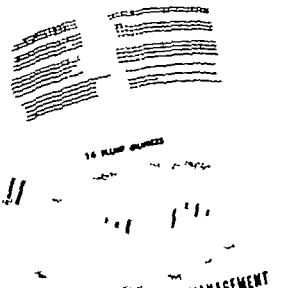
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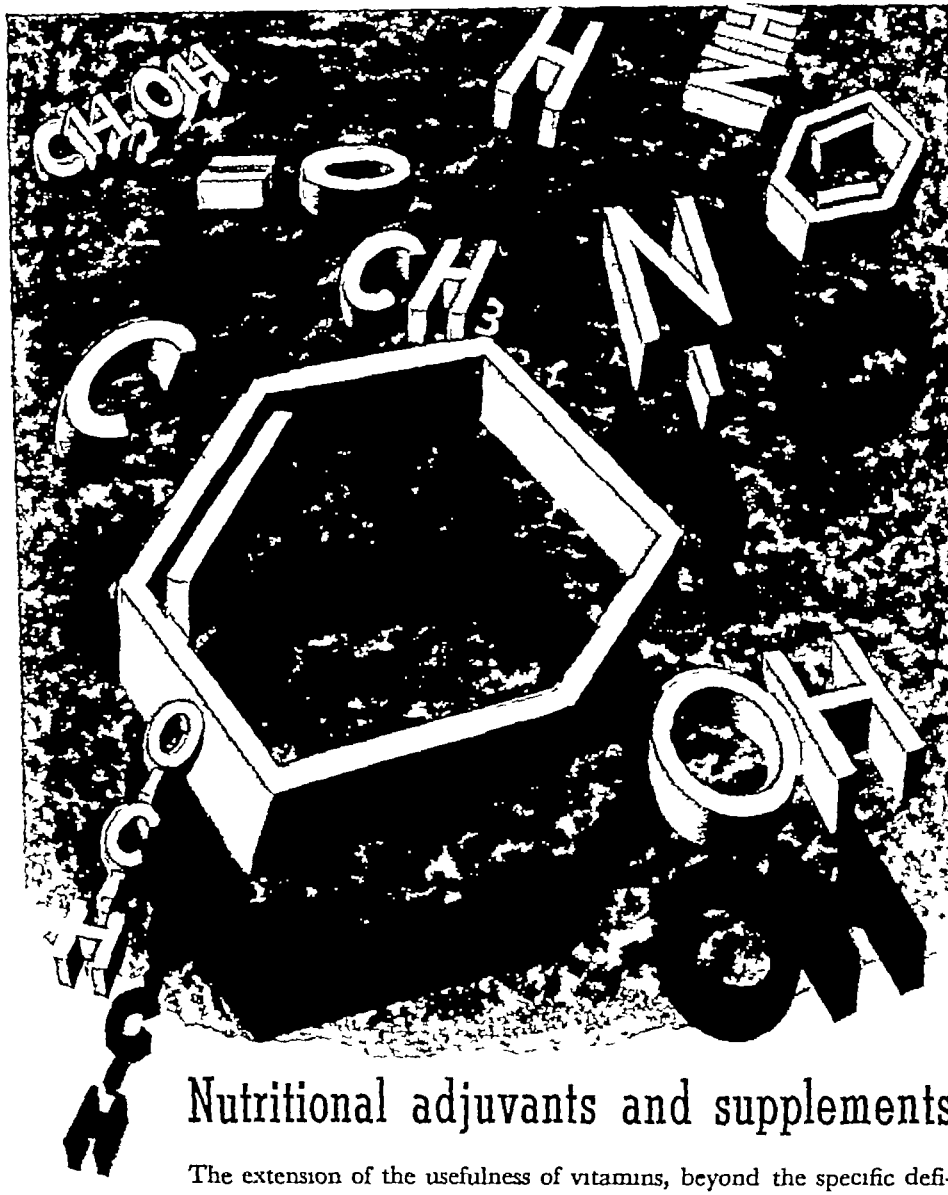


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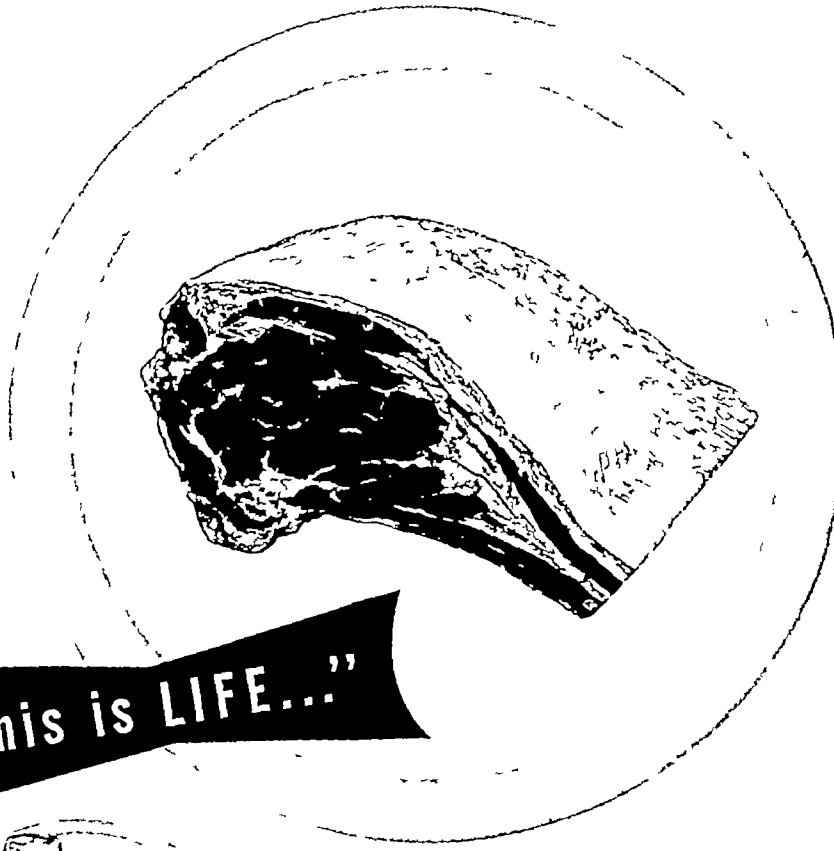
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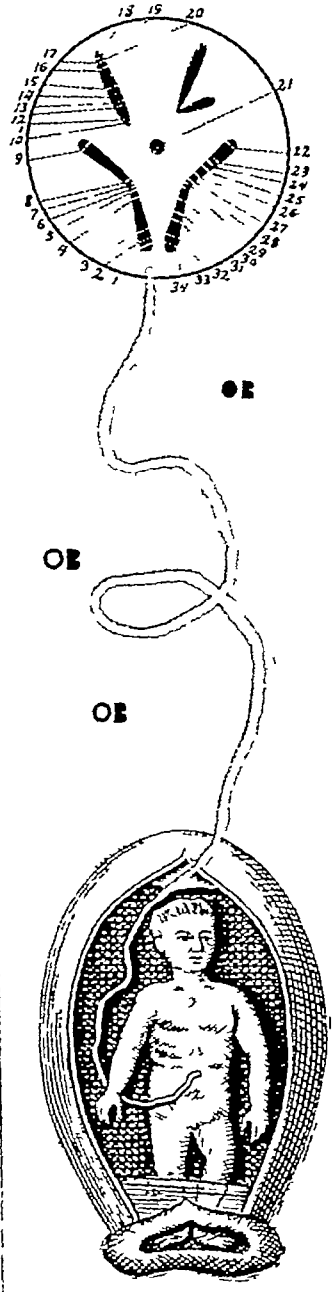
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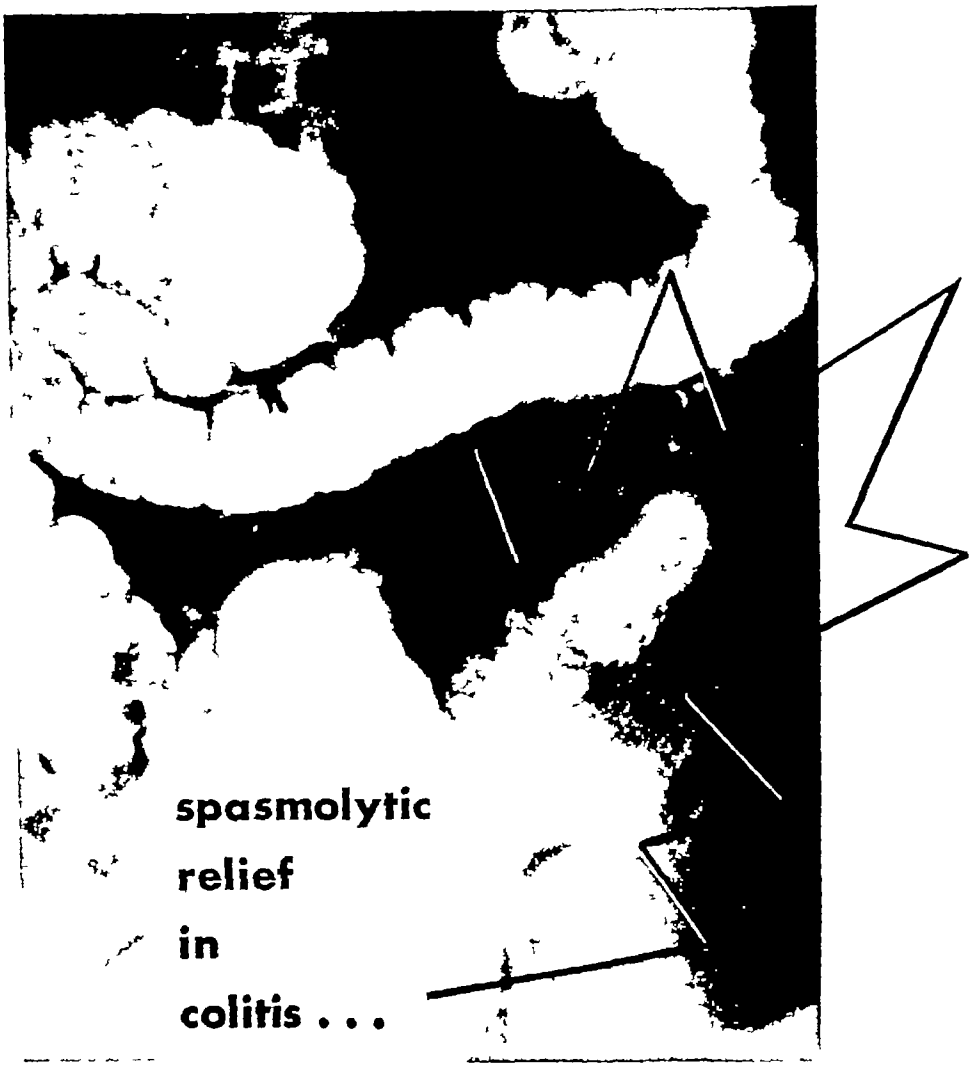
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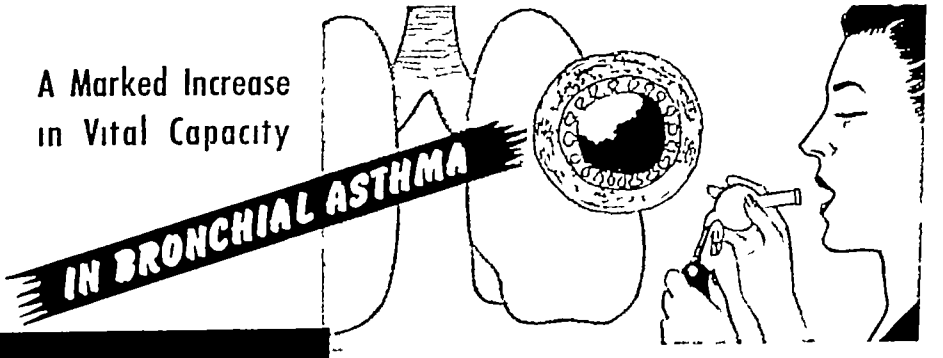
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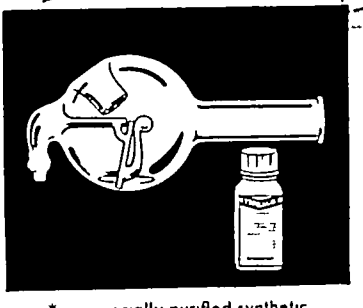
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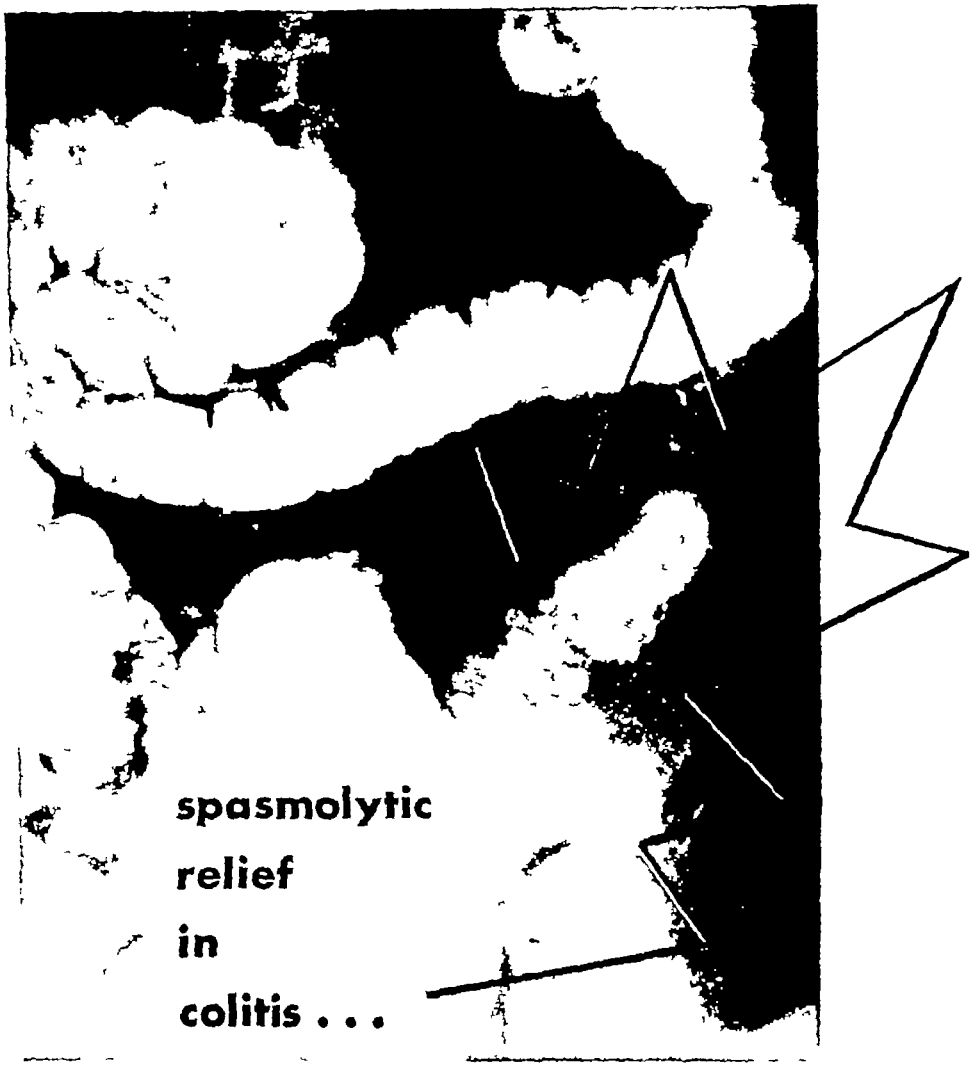
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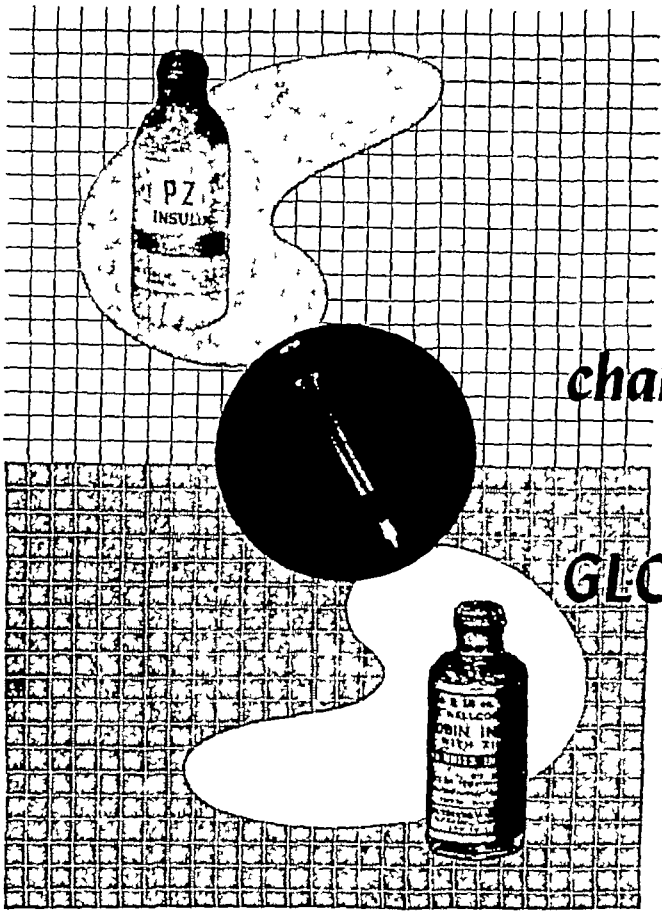
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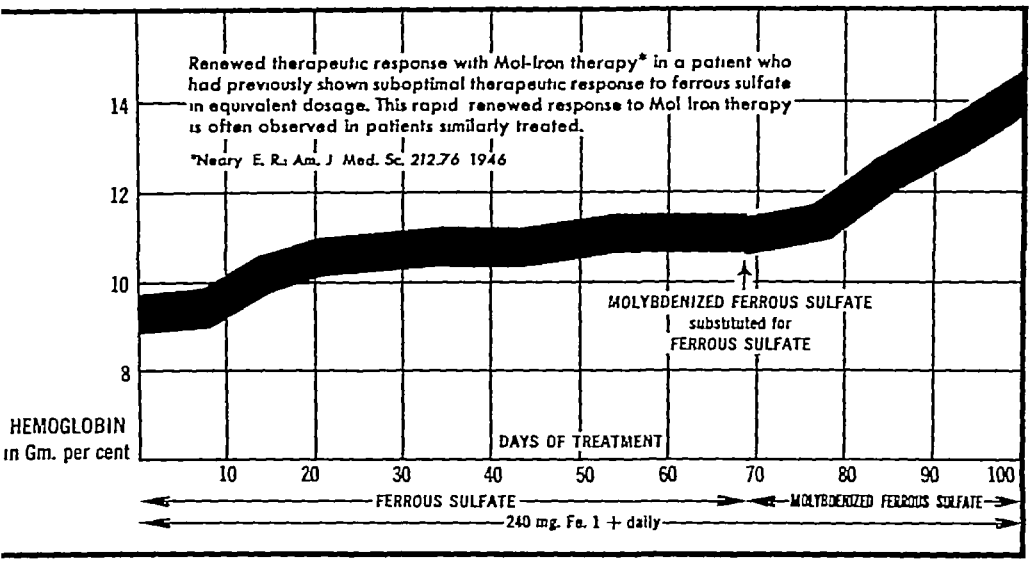
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BETTER TOLERANCE—In a group of patients who could not tolerate other iron preparations, 90% were satisfactorily maintained on Mol-Iron [2]

MOL-IRON TABLETS: Small, easily swallowed—in bottles of 100 and 1000

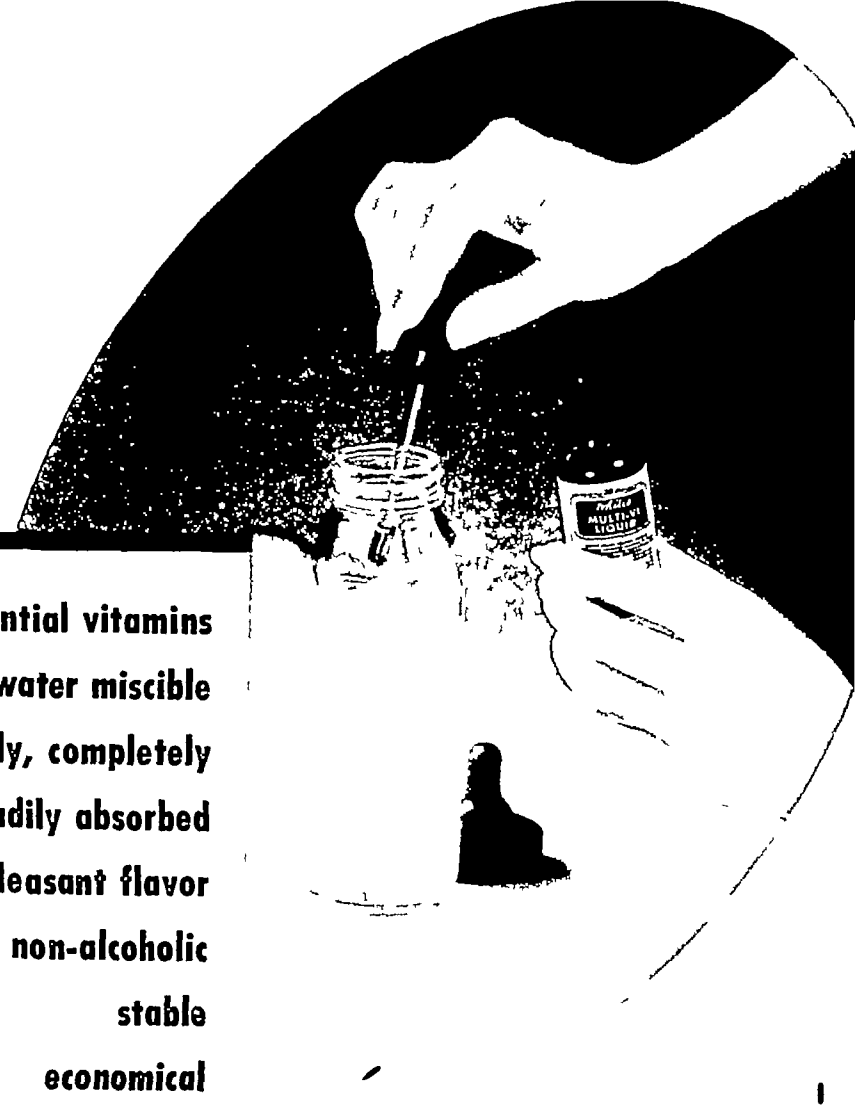
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WHITE LABORATORIES, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

...ite's **MOL-IRON** (TABLETS, LIQUID)

MOLYBDENIZED FERROUS SULFATE

1. Healy J. C.: Hypochromic Anemia: Treatment with Molybdenum-Iron Complex, Journal-Lancet 66:218 (July) 1946.
2. Kelly H. T.: Gastro-Intestinal Intolerance to Orally Administered Iron, Penn. Med. J. 51:999 (June) 1948.



all essential vitamins

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pleasant flavor

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economical

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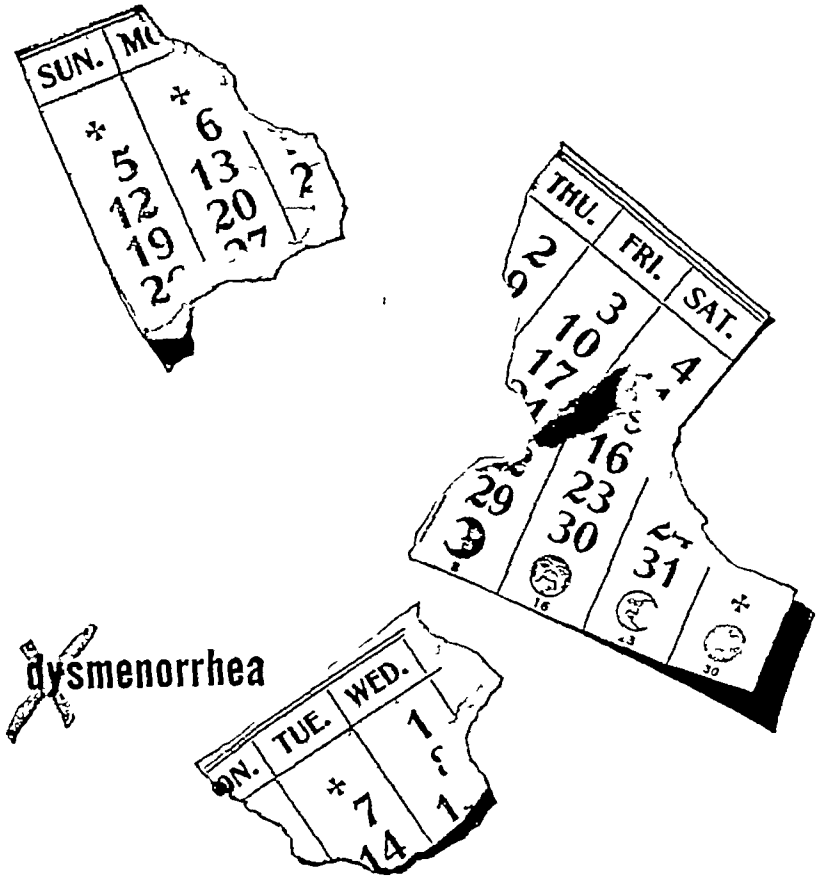
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Pharmaceutical Manufacturers, Newark 7, N J

formula

EACH 0.6 CC. CONTAINS:

Vitamin A	5000 U.S.P units
Vitamin D_3	1000 U.S.P units
Thiamine Hydrochloride	1.0 milligram
Riboflavin	0.4 milligrams
Pyridoxine Hydrochloride	1.0 milligram
Sodium Pantothenate	2.0 milligrams
Nicotinamide	10.0 milligrams
Ascorbic Acid	50.0 milligrams

one of White's INTEGRATED pediatric vitamin formulas



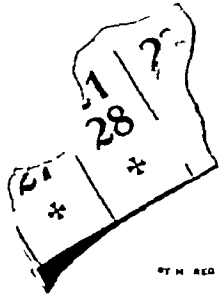
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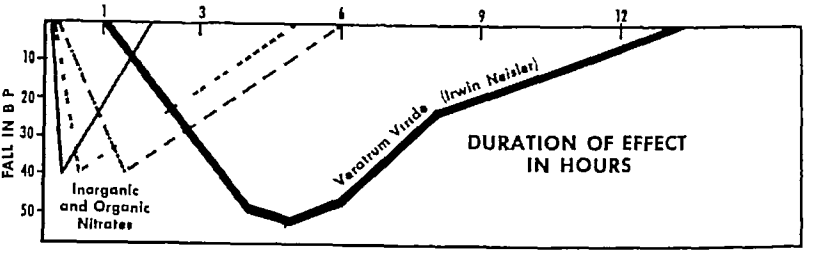
its dual action relieves pain, lifts mood

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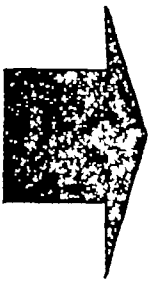


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Veratrite affects a marked relief of headache, palpitation and dizziness in hypertensive subjects, together with a feeling of well-being in the majority of cases of less-than-severe degree



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MEAT. . .

In the Rational Weight Reduction Program

One dictum is universally recognized in the planning of reducing diets the basic requirements of good nutrition remain unaltered, and adequate amounts of high-quality protein are the cardinal factor in the successful dietary management of overweight

Protein allowance in such a program is stated to be not less than 1 5 to 1 7 Gm per Kg of ideal body weight.[1] A further advantage of the diet high in protein and low in fat and carbohydrate is its greater simplicity, the tedious calculation of calories may be omitted without impairing the efficacy of the program [2]

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---

[1] McLester, J S Nutrition and Diet in Health and Disease, ed. 4, Philadelphia and London, W B Saunders Company, 1943

[2] Kunde, M M The Role of Hormones in the Treatment of Obesity, Ann Int. Med *28* 971 (May) 1948

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association

American Meat Institute
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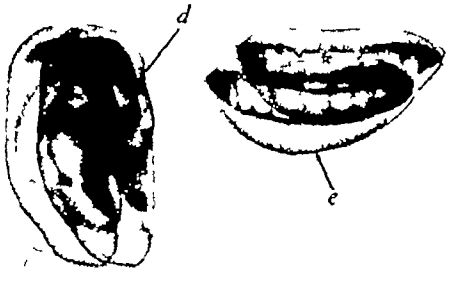
New... For Arthrit



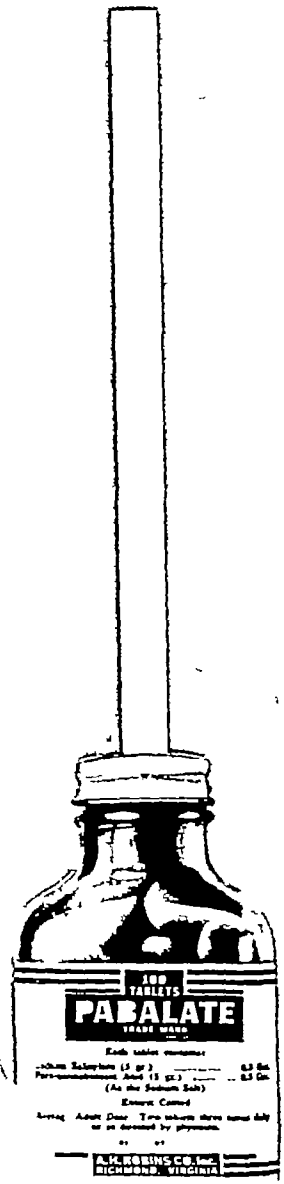


minimal risk of salicylism!

By synergistic enhancement of the therapeutic efficacy of the antirheumatic agents in Pabalate, a higher and adequate salicylate titer is achieved from smaller dosage Thus, the usual danger of such distressing side actions as (*a*) visual and mental disturbance, (*b*) *dizziness*, (*c*) *sweating*, (*d*) *ringing in the* ears, and (*e*) hyperpnea, following ordinary salicylate therapy, is now greatly minimized Pabalate Tablets, furthermore, are coated to prevent gastric irritation and to assure maximal toleration and patient cooperation



ffections . . .



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REFERENCES 1 Rosenblum, H and Fraser, L. E. Proc. Soc. Exper Biol Med., 65 178, 1947 2 Dry T J et al Proc. Staff Meetings, Mayo Clinic, 21 497 1946 3 Belisle, M Union Med. Can., 77 392, 1948.

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FORMULA Each enteric-coated tablet contains Sodium Salicylate, U S P (5 gr), 0.3 g Para aminobenzoic Acid (as the sodium salt) (5 gr), 0.3 gm.

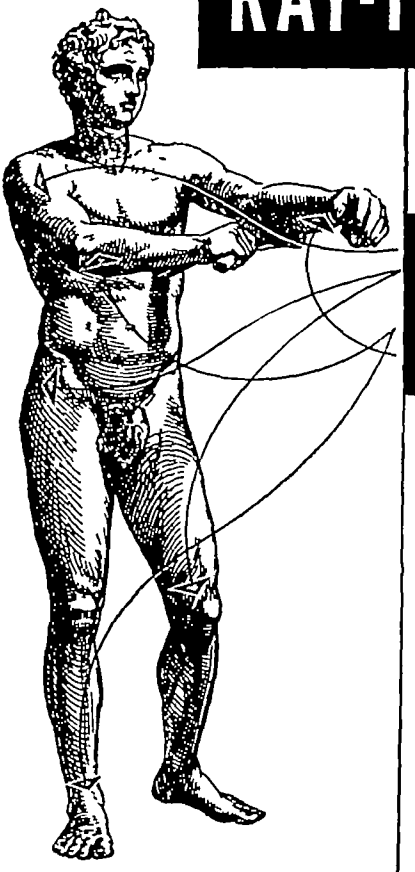
SUPPLIED In bottles of 10 tablets.

For Arthritic Affections

PABALATE

Robins

RAY-FORMOSIL



for the treatment of

ARTHRITIS and RHEUMATISM

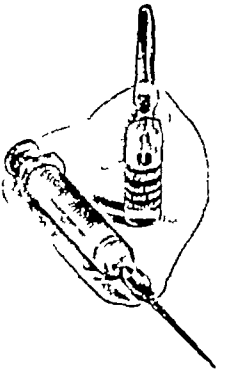
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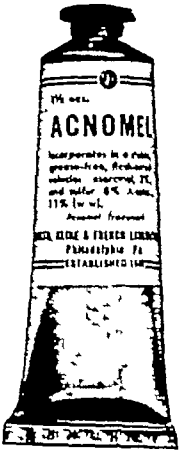
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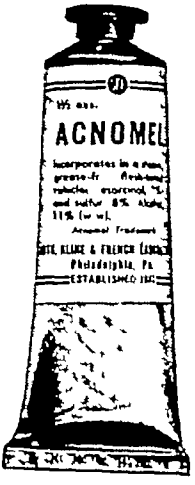
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(*Methallatal, Abbott*)

*Noble, R. L. (1946) Treatment of Experimental Motion Sickness in Humans, Canadian J Research, Section E, 24.10.



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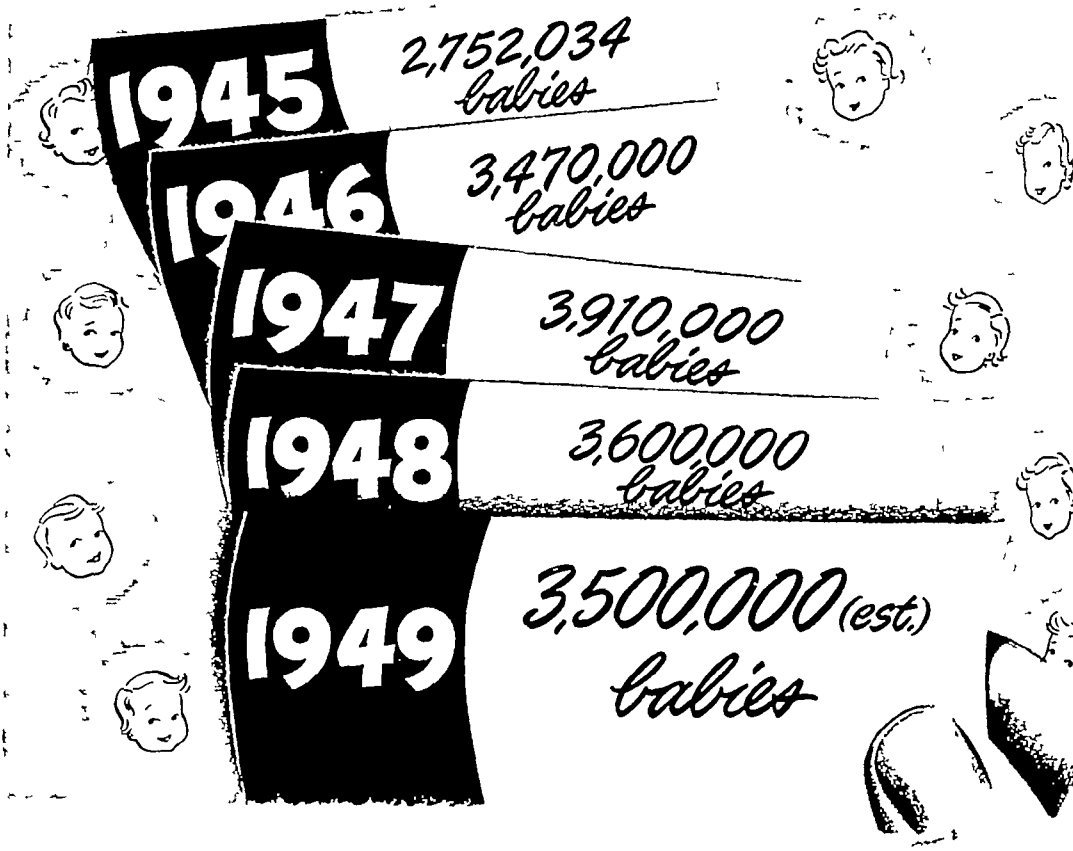
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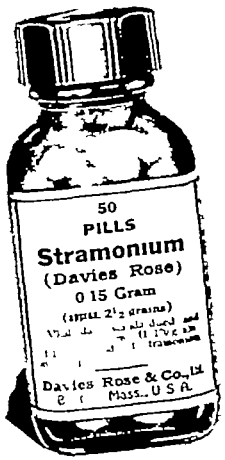
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one of the reasons why you get quick results with Feosol Tablets

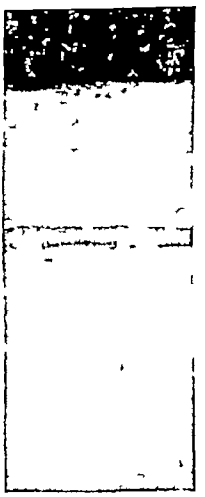
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Inositol-C S C is available in 0 5 Gm capsules in bottles of 100 A complete review of the literature on inositol and dosage recommendations arising therefrom are available to physicians on request

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Proceedings of the Society of American Bacteriologists,
47th general meeting, May 13 17, 1947

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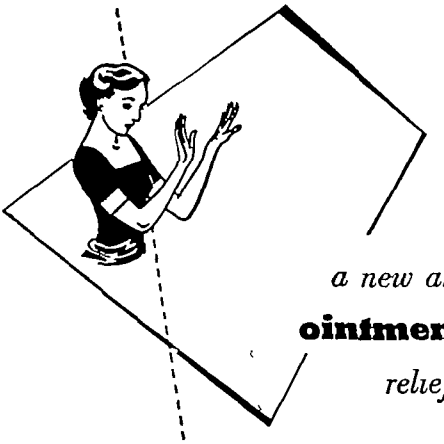
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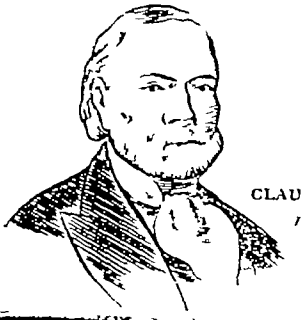
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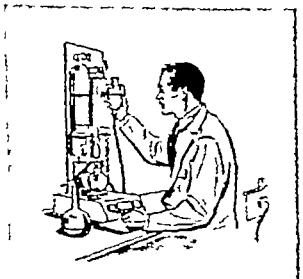
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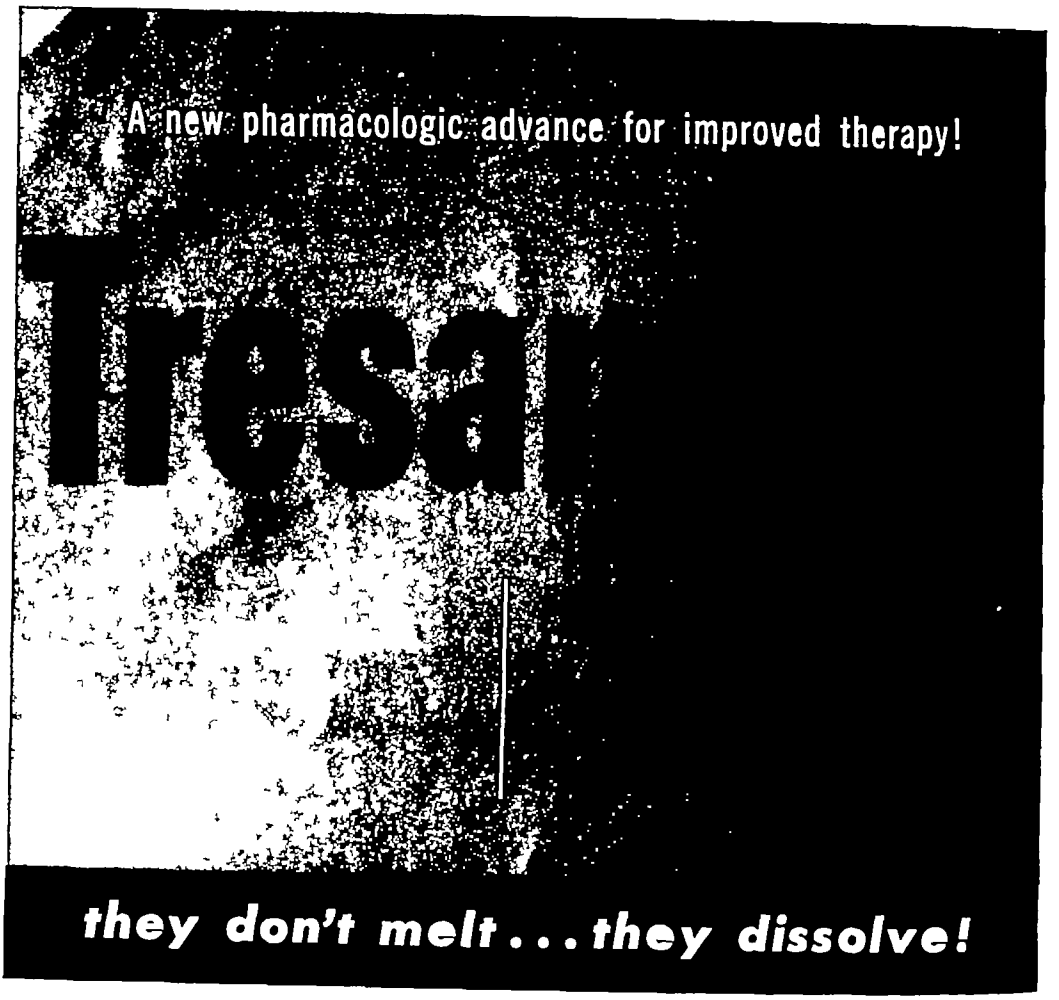
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NEW YORK STATE JOURNAL OF MEDICINE

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Editorials

The Annual Meeting Reminder

Once more, as the blusterings winds of March whistle about the eaves, may we remind our readers that the Annual Meeting is approaching It will be held this year at the Hotel Statler in Buffalo, May 2 to 6, inclusive If you have not already made plans to attend, please do so now Make your room reservations now as space this year is at a premium Write now

This year the specter of national health insurance threatens the public interest Delegates to the Annual Meeting must know how you stand on this vital issue if they are to represent you on questions pertaining to it The A M A through its new public relations representatives is doing a herculean task of educating the public on the pros and cons of socialized medicine Are you discussing with the delegates from your county society how you feel about it? Are you informing your patients? Are you doing a good public relations job for the medical profession right in your office and in the hospitals? If you are, that is part of the task A second part is to keep yourself informed

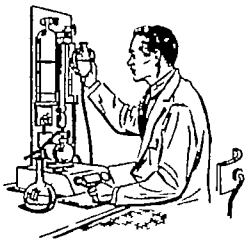
At the Annual Meeting you will hear the latest scientific advances in medicine described in the various section meetings, you will see the newest and most up-to-date instruments displayed, the most advanced pharmaceuticals These are the things that the ingenuity of private enterprise has created to help you make the medical care you give to your patients the finest in the world If only to familiarize yourselves with the newest modalities available to you, attend the meeting without fail. Watch for the April 1 issue of the JOURNAL, the Annual Meeting number

Meanwhile, make your reservations now

Veterans' Home Town Medical Care

In September, 1948, the question of a renewal of the contract between the Veterans' Medical Service Plan of New York, Inc , and the Veterans Administration, whereby outpatient home town medical care for service-connected veterans' disabilities is rendered,



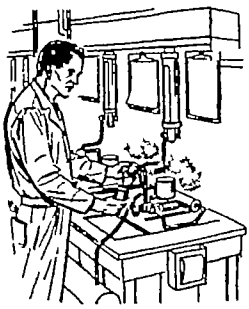


HOW MANY TALENTS SERVE THE DIABETIC?



First, of course, are those of the attending physician It is he who must make the diagnosis and prescribe diet, exercise, and Insulin The physician's success, however, is inextricably bound up in the ability and integrity of the manufacturer who makes and tests the Insulin he prescribes

Pharmaceutical manufacturing, like the practice of medicine, draws upon many sciences and skills During the twenty-six years of the Banting Era, for example, Eli Lilly and Company has painstakingly built up a competent staff of experienced technicians in the specialized field of Insulin manufacture and control



Every lot of Iletin (Insulin, Lilly), from the grinding of the frozen pancreas glands to the final physiological assay, is under a specialist's supervision These men welcome the responsibility of serving you and your patient with potent, stable, and uniform preparations of Iletin (Insulin, Lilly)

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selves, want this kind of medical care and will assist the Medical Society of the State of New York in maintaining it on an honest, properly safeguarded basis, can the physicians of the State hope to be in a position to provide it Such service cannot be rendered cheaply, it cannot be given "free," *somebody has to pay for it in some sort of currency* The physicians can only make it medically possible, the Coordinators can only see to it on behalf of the Medical Society of the State that it conforms to the rules, the principles of ethics, and that violations are properly and sufficiently investigated with the help and assistance of the Inspection and Investigation Department of the VA The single principle involved is free choice of hour, place, and physician who will care for the disabled veteran Do the veterans themselves want it? The Medical Society of the State of New York can only *advise* the veterans and their organizations that *in our opinion* maintenance of the Veterans' Home Town Medical Care Plan is the surest way of assuring the highest quality of medical service with a minimum of hardship What say the veterans? What say their elected officials in the State of New York?

Resolution to Oppose Socialized Medicine Passed by the American Legion

WHEREAS, The American Legion has consistently opposed all efforts to socialize medicine in the United States as evidenced by the resolution adopted in 1945 and reiterated in 1946, and

WHEREAS, there is still persistent and constant effort being made to enact socialized medicine legislation for the alleged benefit of all the people of the United States, and

WHEREAS, compulsory health insurance would result in a general loss of our high standards of health care which now exist and would deprive us of a large measure of our personal liberty and would also increase the burden of bureaucracy, and

WHEREAS, Government control of medical care would add an enormous tax burden to the American people, including hundreds of thousands of our disabled veterans of both wars, and widows and orphans of our deceased veterans, and

WHEREAS, The American Legion takes pride in our program of improving the standard of medical care within the Veterans Administration and other contract institutions, which has now done much to elevate the standard of care in all hospitals, and

WHEREAS, it is still our conviction that any compulsory health insurance plan—political medicine—destroys the essential personal relationship between patient and the doctor of his choice and increases Government supervision and control of our private lives and is in full substance and effect—the planned economy of a collectivist nature—and,

WHEREAS, the Communists have proclaimed "socialized medicine is the keystone to the arch of the socialistic state," and

WHEREAS, any plan of compulsory health insurance would have the tendency to lower the standard medical care that is now guaranteed our veterans and would also deprive the citizen of the right to select the quality of medical care that he can afford, and this, we believe, is contrary to the fundamental rights of the individual, and

NOW, THEREFORE, BE IT RESOLVED by The American Legion in Convention assembled in Miami, Florida, this 18th, 19th, 20th, and 21st of October, 1948, that we are still unalterably opposed to all efforts and movements to enforce socialized medicine upon the American people

(Sponsored and recommended by the Department of Illinois)

came up for consideration It had been previously renewed on June 30, 1948, for a period of three months For some time the VA had wanted to discontinue the supervision by the State Medical Society of the medical aspects of the plan through its Coordinators who are paid by VA funds but who are responsible to the Society

For some time also the Medical Society of the State of New York had questioned whether the veterans' own organizations in the State were fully aware of the extent to which the veterans' medical care available to the veteran under the Veterans' Home Town Medical Care Plan was being curtailed in favor of medical care rendered in VA outpatient clinics The executive secretary of the Society accordingly wrote a letter to the commanders of the veterans' organizations of New York State on September 13, with regard to the matter, calling the commanders' attention to the effort of the VA to curtail home town medical care and the free choice of physician, which was a principal point of contention in the contract renewal negotiations then being considered by representatives of the Society and the VA The thought was that the veterans' organizations might be of assistance to the Medical Society of the State of New York in retaining for the veterans of the State continuance of the Veterans' Home Town Medical Care Plan for service-connected cases, and the avoidance of a return of the type of indifferent clinic care which, following World War I, had occasioned considerable hardship, loss of time, inconvenience, and needless suffering to many veterans of the State

As evidence of the way the leaders of the veterans' organizations feel about the medical services available to the veteran under the Veterans' Home Town Medical Care Plan, we quote from one of the replies received

> It is felt that the chief reason for the establishment of the clinics is to save funds and thus grant the veteran the best in medical care at the least expense This is most laudable, but in saving public funds it may cause the individual veteran a day's pay and some personal expense in travel funds
>
> I feel in looking at the entire picture from both sides that a return to the former system of treatment by private physician will serve the best interests of the veteran in many cases That, while I do approve of the clinics as now established, the element of choice should be left to the veteran, especially those who live in the more remote areas and for those who cannot attend the clinic without loss of wages due to the hours of operation of the clinic conflicting with the hours of employment

From another commander who apparently has been advised that there have been gross abuses, by some doctors, of the privileges granted under the plan, we quote the following

> "I am certain that the Medical Society of the State of New York has done and will continue to do everything in its power to eliminate such undesirable practices (abuses) on the part of members in its profession

So that every veteran and every tax-paying citizen may understand that the Medical Society of the State of New York does not countenance any abuses of the privileges granted the doctor whatsoever, we submit that the Medical Society of the State of New York has been from the beginning insistent upon retention of its Coordinators for just this purpose, and this even against the increasing pressure of the VA to abridge this safeguard by clinic treatment of service-connected disabilities, thus eliminating from the plan the Coordinators and the participation of private home town physicians

The observation quoted from the second letter has so moved the directors and participating members of the Veterans' Medical Care Plan that we, both veteran and non-veteran physician alike, sincerely trust that the smokescreen of barely tenable allegations of abuse, not by many but by a few physicians participating in a vast plan to render high-quality medical care to veterans without hardship, loss of time or inconvenience, will not be permitted to deprive the service-connected disabled veteran, if he desires it, of the best service the physicians of the State can render to him or her

We feel that it is incumbent upon the leadership of the veterans' own organizations not only to understand the principles involved, but also to interpret them accurately to their membership Only if the individuals, the tax-paying veterans them-

suppuration and fluid formation in peritonitis, empyema, intestinal obstruction, and cirrhosis of the liver may deplete the body protein stores While there is definite nitrogen loss associated with all operations, fractures, and injuries, this loss is not likely to be of a magnitude which will threaten protein deficiency in a healthy individual, unless intake of protein is delayed for some time On the other hand, further nitrogen loss can be serious in a patient already depleted of protein stores

Altered protein synthesis, especially in the albumin fraction, may account for plasma albumin deficiency in hepatic disease In depleted states, protein stores in the liver are dependent on an extraneous supply of protein before restitution of plasma albumin can be made, especially if anemia is present Robscheit-Robbins and associates have shown that in dogs, depleted of both plasma proteins and hemoglobin, the latter is always produced more abundantly than plasma proteins and often is produced at their expense [10] In the patient with acute yellow atrophy plasma transfusions can be life saving if given promptly and continued until the liver regenerates.

Effects of Protein Deficiency

While it is true that the level of the albumin fraction of plasma proteins most frequently falls early with protein depletion, the actual amount of circulating plasma albumin cannot be predicted from the serum albumin level of the blood Many observers have pointed out that blood volume decreases with protein depletion, thereby reducing the amount of circulating albumin [11 12] In fact, there is considerable evidence that plasma proteins have a regulatory effect upon blood volume.[13] Sachar and associates feel that hypoalbuminemia can be used as a quantitative measure of tissue protein depletion [14] They postulate that, for every gram of change in total serum albumin, there has been a concomitant change in the same direction of 30 Gm of tissue protein Restoration of plasma albumin does not take place on refeeding until protein is restored to the organ responsible for the formation of plasma albumin, namely, the liver

The osmotic pressure of the plasma proteins in drawing tissue fluid into the capillaries is a potent force in maintaining a constant plasma volume The albumin fraction has the major osmotic effect A level below 2 5 Gm per cent plasma albumin usually results in edema [15] A large salt and fluid intake, however, may alter the level of plasma albumin at which edema appears [16] Either depletion of plasma proteins or excessive sodium intake in a protein-depleted patient may result in the postoperative complication of intestinal edema [17] Abdominal distention is relieved promptly following plasma transfusions, lending support to the view that hypoproteinemia is a cause rather than an effect of the condition [18]

There have been many reports associating hypoproteinemia with high incidence of wound disruption They stress the importance of adequate protein stores for wound healing [19–21] Vitamin C deficiency may be responsible in part for poor wound healing However, low ascorbic acid values are frequently found in hypoproteinemia

The long series of reports of Cannon and coworkers emphasize that good protein reserves are required for the formation of globulin and antibodies [22–24] In protein-depleted animals, antibodies are deficient Madden and Whipple and Sako have demonstrated that hypoproteinemic animals are less resistant to infection than ones with normal protein levels [25 26]

Hypoproteinemia exhausts important protein stores One of these is the protein in the liver When this occurs, the liver is more subject to injury from anesthetics Extensive experimental work with animals has demonstrated that protein best protects the liver from anesthetics and other toxic agents [27 28] The effect of starvation on the liver is profound. After short periods of fasting, liver weight is reduced considerably at the expense of its protein content [29]

Many conditions of clinical importance have been found to originate from protein privation Restoration to an adequate nutritional state before operation and correction of acute hypoproteinemia postoperatively, if it occurs, decreases surgical mortality Likewise, by recognition and correction of the chronic hypoproteinemic states of

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Parenteral Nutrition, II — Protein Privation

Malnourished patients usually can be recognized by their appearance Sometimes, however, appearances are deceptive Blood level tests may be inconclusive, too Nevertheless, the true status of a patient must be determined so that proper preoperative treatment is given the surgical patient and replacement therapy is begun for the medical patient before a critical nutritional phase is reached In both medical and surgical patients, loss of body weight and the rate of loss of weight are important guides Knowledge of the patient's food intake, which can be gained only by a diet inventory, enables the doctor to judge whether the weight loss has occurred at the expense of protein or fat For a patient whose protein stores have been severely depleted, surgical risk is great Studley reports that more than a 20 per cent loss of weight increases surgical mortality from 3 per cent to 33 per cent in cases operated for complications of duodenal ulcer [1] Varco has stressed the importance of prolonging preoperative treatment in proportion to weight loss if surgical mortality is to be reduced [2]

Because protein privation is often insidious, and because its recognition is important, a short review of the frequent causes of protein deficiency is given, together with its common effects on body function

Frequent Causes of Deficiency in Protein

Starvation is probably the most common cause of protein deficiency Many lesions of the mouth and esophagus interfere with the taking of food Care must be exercised when a liquid diet is substituted for a mixed one in cases of partial obstruction, as the wrong ingredients will precipitate a protein deficiency Anorexia follows protein starvation and may increase protein privation, even though the earlier obstructive difficulties may no longer interfere Loss of appetite usually is reversed on resumption of positive nitrogen balance, either through proper oral feeding or after parenteral amino acids are administered [3]

Faulty absorption of adequate protein intake may lead to protein privation In many medical and surgical conditions, altered absorption is the rule Diarrhea, ulcerative colitis, and fistulas involving the small intestine alone or in combination with the stomach and colon can deplete protein stores if the advantages of parenteral feeding are not utilized Histologic changes have been observed in the intestinal villi of animals during starvation Atrophied villi commonly associated with the latter state usually regenerate after refeeding If regeneration does not take place, the animal dies [4 5] It is not clear whether the same histologic changes occur in man Histologic and enzymatic alterations may be responsible for the phenomenon that some patients cannot respond to protein feeding, either by mouth or parenterally, when malnutrition has reached an advanced stage Reports of mass starvation during the last war do not consistently support the opinion of Magee that, in the terminal stages of starvation, a copious and persistent diarrhea with dehydration occurs as the result of chemical and histologic changes in the bowel [6–9]

Excessive protein loss often accounts for protein privation In tubular lesions of the kidney, large amounts of protein leave the circulation Likewise, internal hemorrhage, plasma loss from open wounds and burns,

Scientific Articles

THE MECHANISM OF THE STRUCTURAL CHANGES IN SCOLIOSIS

Preliminary Report

ALVIN M ARKIN, M D , New York City

(From the Orthopedic Services of Bellevue and Mount Sinai Hospitals)

STRUCTURAL scoliosis may be defined as that form of lateral curvature of the spine which is accompanied by the development of wedging and deformation of the vertebrae It is to be differentiated from functional scoliosis which is not accompanied by vertebral wedging or deformation This paper will attempt to describe the mechanism of development of the structural changes in scoliosis

The relationship between pressure and epiphyseal growth has been mentioned by various authors Haas showed that compression of an epiphyseal plate by a wire will arrest growth [1] The wire itself without compression has no effect, and growth will be resumed when the pressure is removed

The mechanics of a scoliotic curve can now be considered, bearing these factors in mind Figure 1 reveals that there must be compression of the concave sides of the vertebral bodies and distraction at the convex sides This is also indicated by the narrowing of the intervertebral disk on the concave side and its expansion on the convex side in the roentgenogram of a scoliotic spine

It is impossible to realize the tremendous order of magnitude which this pressure may assume unless a diagram of the forces acting upon the vertebral body is constructed (Fig 2) Let x represent the distance perpendicularly from the line of center of gravity to the near edge of the disk, and let y represent the distance from the pivot point or fulcrum (corner of the body) to the ligament on the convex side of the curve Hence, the weight concentrated on this small section of the body will equal superincumbent weight plus superincumbent weight times x/y

Here, then, is tremendous compression, concentrated on a very small section of the growing epiphyseal plate (the superior and inferior surfaces of the body which grow by enchondral ossification), sufficient to arrest the growth in height on the concave side and lead to the typical wedged vertebra characteristic of the apex of a scoliotic curve Wedging can be explained only by unilateral epiphyseal arrest since

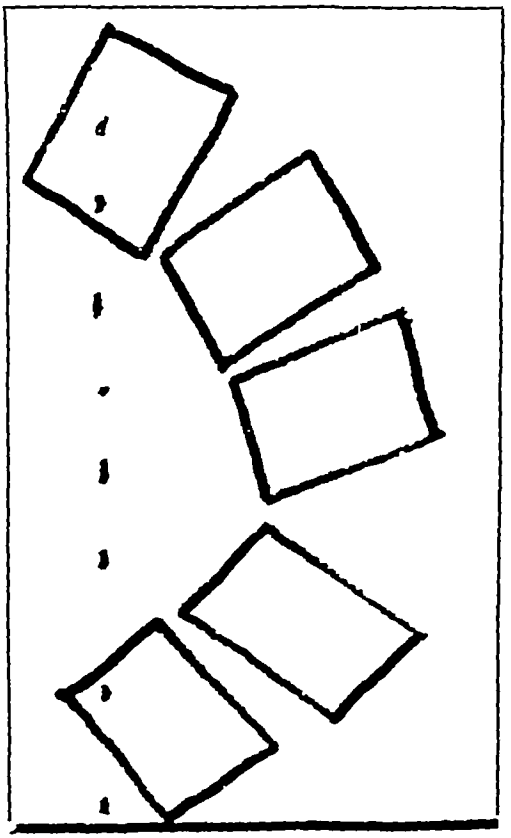


FIG 1 Action of superincumbent weight on a column of blocks.

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Orthopedic Surgery May 21 1948.

medical patients, reversal of deteriorating trends is frequently achieved

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NOTICE TO MEMBERS

The Council of the Medical Society of the State of New York formally approved the collection of the A M.A assessment at its meeting held February 10, 1949

THE A M A ASSESSMENT

The following letter has been forwarded to all members of the Medical Society of the State of New York, it should meet with an early response

My dear Doctor

The House of Delegates of the American Medical Association at its recent meeting in St Louis unanimously voted to assess each of its members $25 to carry on a nation-wide program of education on the progress of American medicine

The House of Delegates, who are your own representatives, are calling on you to join with one another, and with them, in a concerted effort to protect our patients and to preserve the ideals, the independence, and the integrity of the medical profession

American medicine is at the crossroads, and the health of the people is at stake Within a short time Congress will be called upon to make a grave decision This issue, in the last analysis, will be determined by the people—our patients

The medical profession, as represented by the A M.A , needs your $25 More than that, however, it needs you, your efforts, your determination and loyalty

May I, on behalf of the Medical Society of the State of New York, urge you to make your remittance now Make your check payable to the American Medical Association and mail it to the office of the State Society, 292 Madison Avenue, New York 17, New York It will be forwarded to Chicago as soon as it is received

With my sincere best wishes, I am

Very sincerely yours,

Leo F Simpson

President

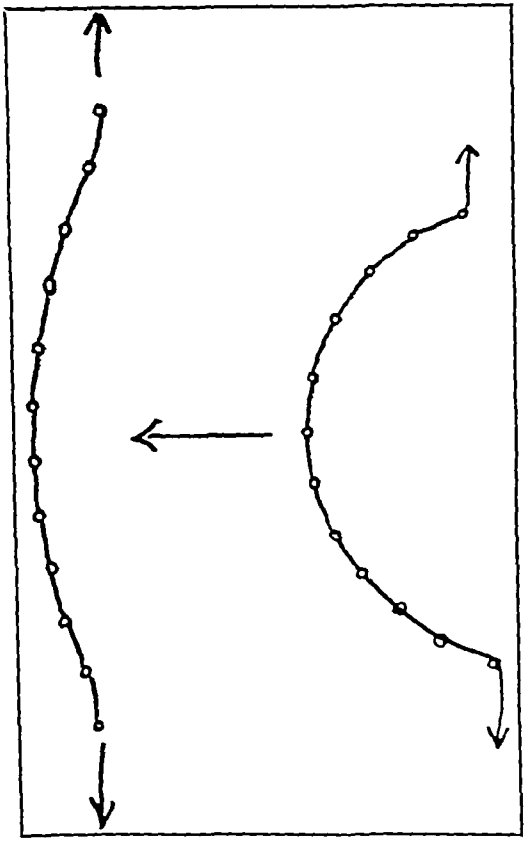


FIG 5 Extension of a curved line.

oblique or sidewise deflection of growth by the pressure forces at the epiphyseal region It is suggested that the slow deformation in slipping of the femoral capital epiphysis is produced similarly

If a diagrammatic representation of a wedged vertebra, as seen from above, is examined, it is noted that the body is squeezed over to the convex side (Fig 4) It is known that no muscles act upon the body to distort it in this fashion, and this passive deformation in the direction of increasing rotation about the facets, it is realized, is the result of the wedge action described above

However, the spinous process is also deviated—to the concave side This cannot be the result of wedging since it is not wedged and not in contact with any other bone The deformation must be the result of forces in soft tissue, since only soft tissues contact the spinous process Moreover, this deformation is in the direction of increasing rotation, and it seems, therefore, that there must be some muscular or ligamentous component of rotation.

If reference is made to Fig 5, the line of dots represents the tips of the spinous processes in a scoliotic spine The line connecting these dots represents the interspinous and supraspinous ligaments Obviously, when these ligaments are put under tension (in a kyphoscoliosis), they tend to straighten out the curve as shown In addition, the long spinal muscles on the convex side tend to push, and the muscles on the concave side tend to pull the spinous processes into a straight line, the shortest distance between two points In a spine which is perfectly straight, there would obviously be no tendency to push or pull the spinous processes to either side

Development of Compensatory Curves

Let us consider a single major curve such as that indicated in Fig 6 The ends of the curvature are bent back or recurved, due to the attempt of the patient to level off his pelvis and head The vertebral bodies in this region are unwedged, hence these compensatory curves are functional, not structural

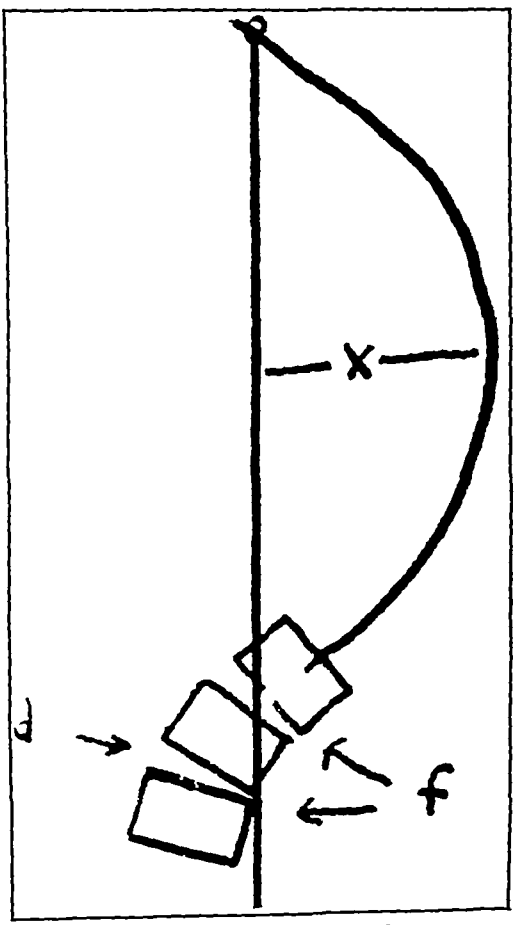


FIG 6 Recurvature of the ends of a curve

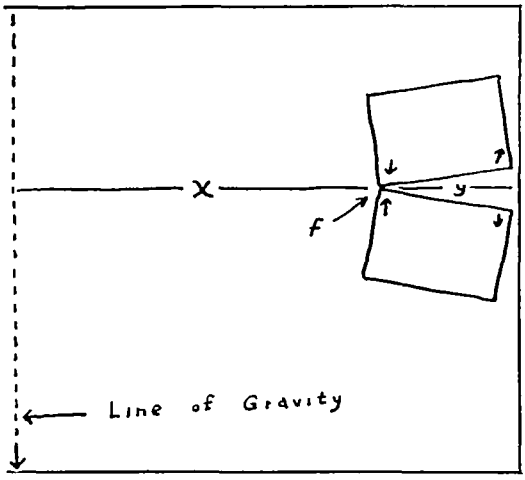


FIG 2 Forces acting on an apical vertebra in scoliosis

the same tremendous compression applied after growth is completed does not cause wedging

Examination of a typical vertebra from above will show that the normal spine may be considered to be supported at four points denoted by A, B, C, and D (Fig 3) Lateral bending in the normal spine takes place through the axis AD If support A is depressed by the mechanism described above, then lateral bending will take place through the axis BD Hence the concavity of the curve is directed anteriorly as well as laterally producing the kyphoscoliosis seen clinically

Rotation

A wedged vertebral body under compression acts like a wedge and is squeezed out laterally when pressure is applied, leading to the convex side rotation seen in scoliosis Some of the rotation occurs by the actual rotation of a body across the one adjacent (between the individual bodies), although this is limited by the surrounding ligaments and, especially, by the limited excursion of the posterior joints

Much of rotation occurs by plastic torsional deformation within the individual vertebra against the resistance of the posterior articulations The bodies' internal structures follow

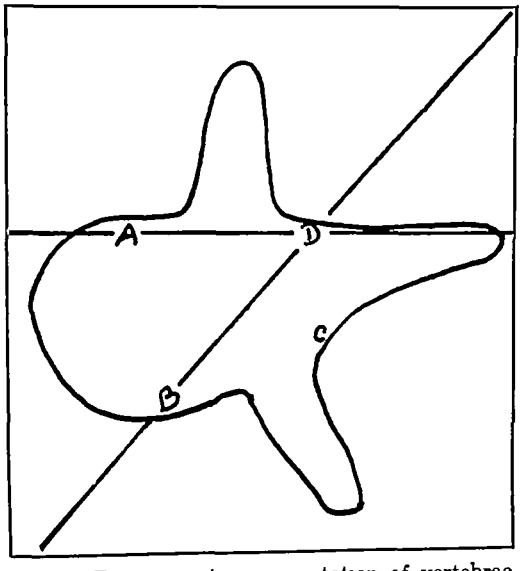


FIG 3 Diagrammatic representation of vertebrae seen from above

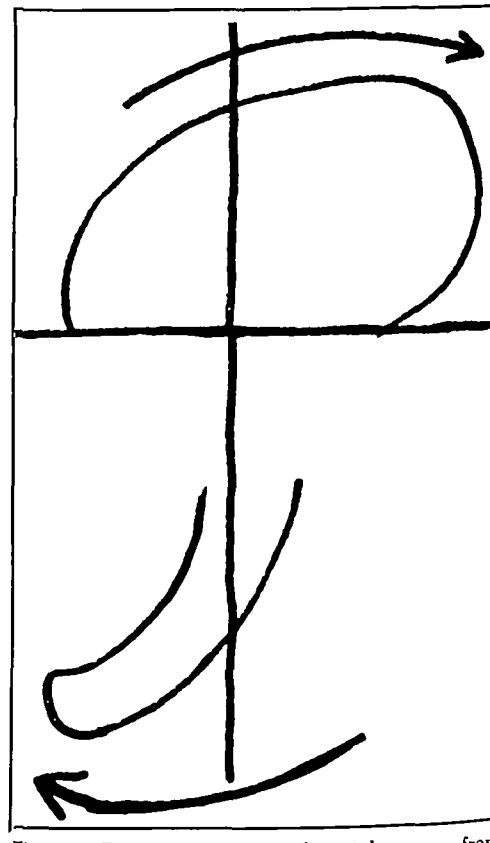


FIG 4 Rotation in an apical vertebra seen from above

accurately the lines of force occurring in a structure such as that shown in a scoliotic spine with weight-bearing The bodies at the apex of the curve are subjected to internal plastic deformation due to the "wedge" action The bodies at the upper and lower end of the curve show deformation in response to the lines of force which are oblique to their vertical axis leading to the formation of the "oblique" or "quadrilateral" vertebra found in this location. This plastic deformation ceases when epiphyseal growth ceases. Thus one may postulate that it is produced by an

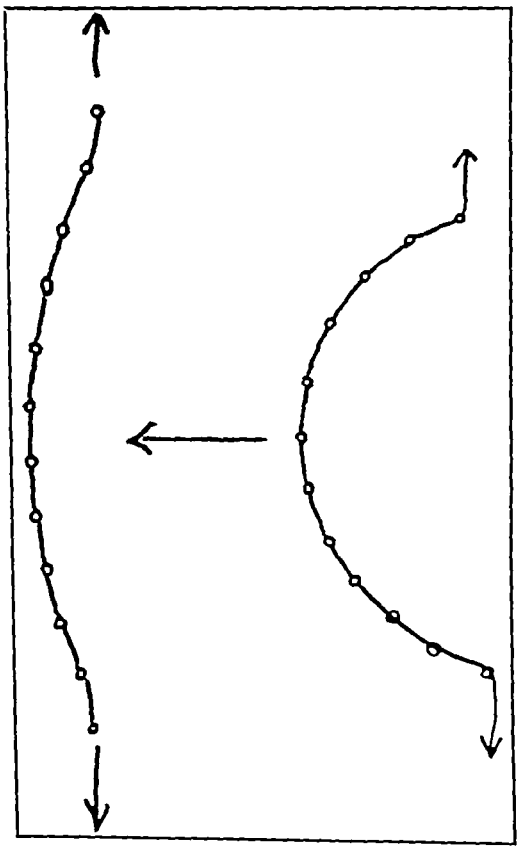


FIG 5 Extension of a curved line

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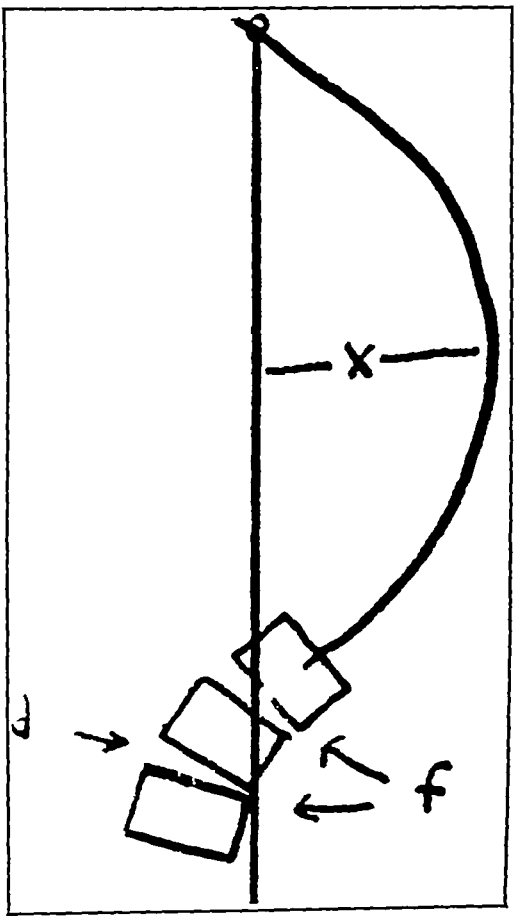


FIG 6 Recurvature of the ends of a curve

It will be noted in a radiograph of a scoliotic spine that, as the spine begins to recurve, the disks begin to be compressed on the opposite side of the bodies and on the concave side of the new curve (*d* and *f* in Fig 6) Pressure is thus falling on the corners of the bodies at point *f*, distraction is present at *d* This leads to inhibition of growth at *f* with wedging of the vertebra and conversion of the "functional" compensatory curve into a "structural" curve (Fig 7)

It must be understood the superincumbent curve need not be structural (wedged) in order to initiate the development of a functional counter curve Many purely functional curves have functional counter curves which have developed concurrently with them They have never deviated sufficiently from the weight-bearing line to cause wedging, and these well-compensated curves are usually static and do not progress to a structural scoliosis

Steindler has noted that, when structural scoliosis is arrested spontaneously, it is by the natural development of compensatory curves [2] His compensation treatment is designed to aid the development of this process, which, of course, is the principal means of correction in all methods of treatment, since the wedged apical vertebrae cannot be corrected He states "that a spine, well compensated by the development of a triple scoliosis, well-aligned, maintaining its balance under favorable conditions, is a matter of almost daily experience "[2]

An examination of Fig 7 will demonstrate why s is successful A factor determining the ount of weight acting upon the corner of the vertebral body, as shown earlier, is the *x* distance Compensation diminishes this distance and therefore diminishes the compression of the epiphysis It is to be remembered that Haas showed that growth resumed when compression was removed [1] Hence, with both sides of the epiphysis growing the deformity does not progress

Risser uses this principle in his method of treatment of scoliosis He has noted that by forcibly recurving the ends of the scoliotic curve he can produce wedging of the vertebrae (at point *f* in Fig 7), realizing that this is due to inhibition of growth by pressure

Figure 8 reveals the anteroposterior curves of the normal spine It will be noted that in the cervical and lumbar regions the normal lordosis relieves the anterior parts of these regions of the spine (the vertebral bodies) from part of the superincumbent weight, throwing it more upon the posterior articular facets This explains why the region from approximately the second thoracic to the second lumbar vertebra is the danger zone for the development of scoliosis The cervical vertebrae are practically never wedged The lumbar vertebrae are only partially protected, due to the greater superincumbent weight they carry (and due also to the forward displacement of the line of gravity in low dorsal kyphoscoliosis), but, at any rate, are sufficiently protected so that they rarely become wedged despite the frequency of functional curves due to inequality of leg length

Hence, when the *x* distance is increased by habitual postural kyphosis, excessive weight is thrown upon the dorsal vertebral bodies It is suggested that the epiphyseal rings, which appear at about the fourteenth year of life, are compressed by this mechanism, leading to "vertebral epiphysitis" or adolescent kyphosis

Comment

It has been shown how a functional, non wedged curve can progress into a fixed structural scoliosis The etiology of the preceding functional curve is not within the scope of this paper However, it may be assumed that the initiating cause of the functional curve may, in some cases at least, continue to contribute to the structural scoliosis which follows

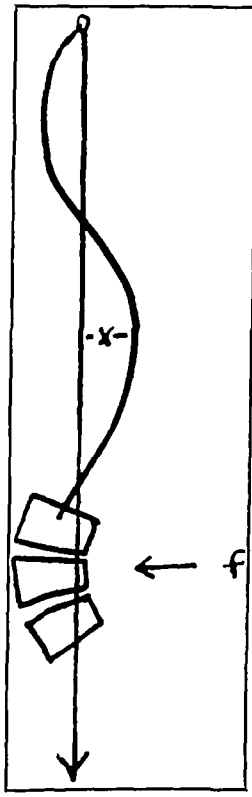


Fig 7 Formation of structural compensatory curve

Whatever the cause of the functional curve, as soon as it has produced a deviation exceeding a certain critical value, the *factors described* in this paper come into play, and the spine has embarked on the downward path of epiphyseal compression and structural scoliosis *

Some comment may be made about methods of treatment Obviously, the best treatment is prevention by correcting postural deviations, whether in the anteroposterior and/or the lateral plane, before they progress to structural changes In a severe curve, plaster jackets and braces cannot completely relieve the epiphysis of the pressure induced by the superincumbent weight, tremendously multiplied as it is by the mechanical arrangement which obtains Recumbency, of course,

removes the superincumbent weight completely A combination of the two methods above (jackets or other means of lateral deviation plus recumbency) would seem to offer the better prospect of successful conservative treatment

Summary

1 The vertebral deformation of structural scoliosis can be explained as an asymmetric disturbance of epiphyseal growth by pressure

2 Adolescent kyphosis ("vertebral epiphysitis") may be explained by a similar mechanism

Discussion

Mather Cleveland, M.D , *New York City* —Dr Arkin should be commended for an interesting and highly intelligent study on the mechanism of structural changes in scoliosis The theory which he propounds may be called that of pressure epiphysitis with resulting wedging and rotation of the vertebral bodies This deformity can only take place during the growing years.

It has been shown that scoliosis follows thoracoplasty, with the curve convex toward the side with the disrupted thoracic cage. In the adult this results in a mild lateral curvature of less than 15 degrees, a matter of no consequence In the child with intact vertebral epiphyses and several years of growth ahead, a bizarre and horrifying, 75-degree, lateral curvature of the spine results

Dr Arkin shows very convincingly what happens to the vertebrae in structural scoliosis and how it happens, but he leaves unanswered, I believe, the question of why it happens His summary is a masterpiece of terse statement. He merely claims that vertebral deformity of structural scoliosis may be explained by unilateral epiphyseal arrest by pressure and, although he states that vertebral epiphysitis is a related lesion, perhaps he only means that it may be.

The underlying basic cause of structural scoliosis, i e , what starts the ball rolling toward this deformity, remains unsolved Perhaps the thoracoplasty in a growing child gives some lead

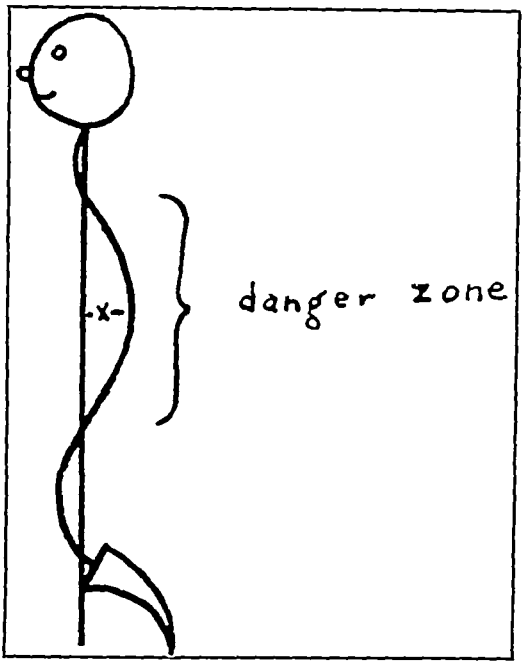


FIG 8 Anteroposterior curves of a normal spine

* It is possible that factors such as rapidity of growth heredity sex, and pathologic processes e g. rickets may modify the quantitative relationship between pressure and growth arrest

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1 Haas S L. J Bone & Joint Surg. 28 25 (Jan.) 1945

2 Steindler Arthur Diseases and Deformities of the Spine and Thorax St. Louis C V Mosby Co 1929 p 146

AVERAGE AGE OF PHYSICIANS DECLINES

The average age of physicians in the United States is slightly less today than it was at the outbreak of World War II, according to a report by Frank G Dickinson, Ph.D , Chicago, director of the Bureau of Medical Economic Research of the American Medical Association

This age decrease reflects the "relatively large number of physicians trained since 1940," Dr Dickinson reports. Statistics are for all physicians in the United States, including interns, residents, and doctors not in active practice The median age of the 199,745 doctors of the nation is 44.4 years. In 1940 the median age for 175,146 doctors was 45 8 years The percentage of all physicians under 50 years rose from 57 5 in 1940 to 60 2 in 1948 In the age group 35 to 49, the percentage rose from 31 4 to 36 5

"The medical population has increased 14 per cent since 1940, while the total population of the country increased only 12 per cent," Dr Dickinson points out "Each new physician is destined to remain in the medical population approximately 40 years."

Numbers of young physicians holding internships and residencies in metropolitan areas probably account for the lower median ages of physicians in thickly populated states, Dr Dickinson indicates.

"The available supply of medical service cannot be measured by crude numbers of living physicians since they include interns and residents still in training and physicians not engaged in the active practice of medicine

"An adequate inventory of medical service must also include an evaluation of the contributions of the large force of technicians and medical assistants who enable the modern physician to render far more medical service than was possible only a decade ago "

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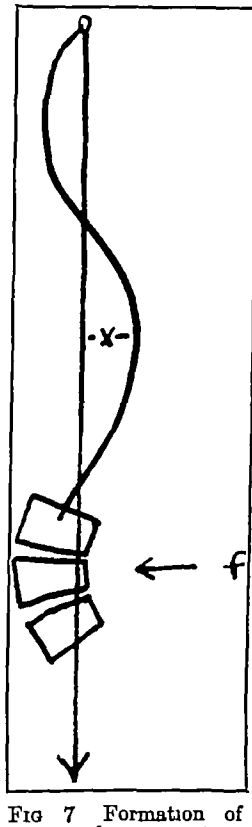


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The duration of symptoms would be expected to bear some relation to the extent of disease and thereby to prognosis Table 4 indicates the duration of symptoms in terms of months and years

TABLE 4.—DURATION OF SYMPTOMS

Duration	Number of Patients	Per Cent
0 months	10	3 0
0–2 months	90	27 5
2–6 months	129	39 4
6–12 months	57	17 3
1–2 years	32	9 8
2+ years	9	2 7
No information	1	0 3
Total	328	100 0

Of those who had symptoms 70 per cent had had them for over two months About 30 per cent gave a history of over six months duration However, only 19 of the 90 cases with symptoms of less than two months were in grade I This has definite implications when considering the necessity of regular routine physical examination. Among others, Schmitz and Healy and Twombly have noted the lack of correlation between duration of symptoms and extent of disease [5,6]

Classification

Epidermoid carcinoma was diagnosed in 306, or 93 per cent, and adenocarcinoma in 22, or 7 per cent, which corresponds to the percentage of these two classes reported generally Adenocarcinoma, in this group, carried a poorer prognosis than the group as a whole, since only 3, or 13 6 per cent of the 22, were alive or accounted for at five years This is not the universal experience, however, since Baclesse and Fernandez found a five-year survival of 24 per cent in 420 cases treated by radiation, as reported in the literature [7]

The highest incidence of adenocarcinoma occurred in the sixth decade One patient only was under the age of forty

Cervical Stump

Cancer occurred in the cervical stump in 11, or 3 4 per cent of these cases This is similar to the incidence reported by Cosbie and Martzloff [8,9] The five-year survival in the cervical stump group was only 9 1 per cent, which is far below that of the series considered as a whole, and it is lower than that reported by others Healy and Arneson, Fricke and Bowing, and Cantril and Buschke report a total of 132 cases of carcinoma of the cervical stump with a five-year survival rate of 22 7 per cent [10–12]

Complicating Diseases

A variety of diseases were present in these patients, alone or in combination, in addition to carcinoma of the cervix Cardiovascular disease was found in 36, syphilis in 18, diabetes in ten, other malignancies in 13, and other diseases which would affect expectancy in 26 patients

One of the patients in this group was eight months pregnant at the time of diagnosis of carcinoma of the cervix The fetus was delivered by cesarean section, following which a complete course of radiation therapy was given She died, however, of generalized metastases fourteen months after diagnosis

Clinical Grade

All of the clinical grading was done by one of us, (S.R.S) using the 1938 League of Nations classification Grade I included 58 (17 7 per cent), grade II, 83 (25 3 per cent), grade III, 107 (32 6 per cent), and grade IV, 80 (24 4 per cent) of the cases These are listed in Table 5 according to each of the year periods into which the study is divided

Radiation Therapy

The methods of radiation therapy separated themselves into three fairly well defined periods that from 1926 through 1932, from 1933 through 1937, and from 1938 through 1942

The radiation therapy of the first period was characterized by the use of large amounts of radium for relatively short periods of time with repeated applications The total number of milligram hours was high Thirty per cent had over 10,000 mg hrs and 70 per cent over 7,000 mg hrs The roentgen radiation was given by the massive dose method at widely separated and irregular times Ninety-four per cent of these patients received over 400 r to each of two fields per treatment Also the total doses were small, since 65 per cent had less than 7,000 r (All doses are given as air measurements)

The radiation therapy of the second period is characterized by wide variations in the dosage of radium and roentgen radiation Sixty per cent of the patients received less than 4,000 mg hrs, while 13 per cent received over 8,000 mg hrs The roentgen radiation was largely given by the massive dose method but of relatively low total dose The dosage in 94 per cent of the treatments in this period was 400 r or more per field, and usually two fields were treated each day The total roentgen dose varied from 3,000 to 10,000 r, but at least 82 per cent of the patients received less than 7,000 r

The method of radiation therapy of the third period was the one popularized in this country by the group at Memorial Hospital [13,14] It was characterized by the use of smaller amounts of radium with better distribution and greater protraction of application The total dose in milligram hours was less, since 86 per cent of the patients in this period received between 4,500 and

CARCINOMA OF THE CERVIX UTERI

A Study of 328 Cases

JOHN W KARR, M D , A L GROHOWSKI, M D , G J BARON, M D , T B STEINHAUSEN, M D , and S R SNOW, JR , M D , Rochester, New York

(From the Departments of Radiology and Obstetrics and Gynecology of the University of Rochester, School of Medicine and Dentistry, and Strong Memorial Hospital)

THE present study is the first one made of the cases of carcinoma of the cervix from the Strong Memorial and Rochester Municipal Hospitals The period of this study extends from the time of the opening of the hospitals in January, 1926, to the end of December, 1942 During this time about 200,000 patients were registered A pathologic diagnosis of carcinoma of the cervix was made in 397 cases which constitutes 55 per cent of the primary carcinomas of the female genital system diagnosed in this period This is somewhat lower than the percentages reported by Miller and Schmitz who gave 65 8 and 79 0 per cent, respectively [1 2] The present study is limited to those cases which received all of their radiation therapy in the departments of radiology of the hospitals and consists of 328 cases

The cases are grouped according to age, marital status, parity, symptoms and their duration cervical stump, complicating diseases, clinical grade, method and time of treatment Survival rates are given as they may be affected by these variables The survival rates are calculated without regard to the cause of death, since in many it was unknown Also all those in whom there was an incomplete follow-up were considered as having died within five years

Comparative Data

Age Distribution

Table 1 gives the distribution of the cases according to the age in decades

TABLE 1 —AGE DISTRIBUTION AND SURVIVAL

Age	Number of Patients	5-Year Survival Number	5-Year Survival Per Cent
20–29	4	1	25 0
30–39	42	12	28 6
40–49	103	28	27 1
50–59	106	27	25 5
60–69	54	15	27 8
70–79	17	2	11 7
80–89	2	1	50 0
Total	328	86	26 8

The age span is from twenty-three to eighty-seven, and the distribution shows 64 per cent to be in the fifth and sixth decades and 86 per cent to be above the age of forty This is in accord with the age distribution generally reported.[3] The distribution curve of the clinical grade in relation to age was quite smooth except for a slightly greater percentage of grade III in the sixth decade The survival rates show no marked variation except in the eighth decade where there is an expected drop, since survival under any circumstance is somewhat limited

Marriage and Parity

Three hundred nine, or 94 4 per cent, of these patients were or had been married, 19, or 5 6 per cent, were single The distribution according to the number of pregnancies is shown in Table 2

TABLE 2 —PARITY

Number of Pregnancies	Number of Cases	Per Cent
None	55	16 8
1 to 4	170	51 8
5 or more	95	29 0
Not given	8	2 4
Total	328	100 0

The disease occurred about five times as frequently in the parous as in their nulliparous sisters, yet it occurs in a significant number of the latter group Bowing and McCullough and Hurdon report about the same distribution in much larger series [4,5]

Symptoms and Their Duration

Since some change in the normal course of events is the thing which brings the woman to the physician, the nature of this change is of great importance in this serious disease Table 3 lists the name and distribution of the symptoms reported in this series

TABLE 3 —SYMPTOMS

Symptom	Number	Per Cent
Vaginal bleeding—alone or with other	272	83 0
Pain—alone or with other	41	12 5
Leucorrhea—alone or with other	37	11 3
None	10	3 5
No information	7	2 1

It is apparent that the principal danger signal is abnormal vaginal bleeding Pain and vaginal discharge occur with about equal frequency, although pain may be indicative of a more advanced stage of the disease It is significant that ten of these patients had no symptoms

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Radiology May 21 1948

grade by the year period, and the totals for each grade

Table 6 gives the totals for each of the year periods with five- and ten-year survivals Again it must be mentioned that deaths from whatever cause and all not followed cases are considered as dead of disease within five years

These tables reveal a five-year survival of 69 0 per cent in grade I, 30 1 per cent in grade II, 15 9 per cent in grade III, and 5 0 per cent in grade IV with a total five-year salvage of 26 2 per cent This compares with a five-year salvage of 27 4 per cent taken from the combined data covering 16,385 cases reported by Tod, Schmitz, Smith and Dresser, and Ingelman-Sunderberg [11–13 17]

From Table 6 it is seen that there was a progressively increasing five-year salvage from 13 0 to 26 05 to 37 5 per cent in the three periods This corresponds to the progressive increase in five-year salvage reported by others, among whom are Hurdon, Smith and Dresser, Heyman, Jacoby, and Richards There is also an increase in the number of those with grade I in the third period compared with either of the other two periods

Clinical grade is the chief controlling factor of five-year survival as demonstrated by the progressive drop from 69 per cent in grade I to 30 1 per cent in grade II to 15 9 per cent in grade III to 5 0 per cent in grade IV

Summary and Conclusions

This is a presentation of a series of 328 proved cases of carcinoma of the cervix uteri seen between 1926 and 1942 which received all radiation therapy in our hospitals The greatest incidence occurred in the fifth and sixth decades The age of the patient did not greatly affect the five-year survival. Abnormal vaginal bleeding was the most common symptom. Duration of symptoms was not indicative of the extent of the disease

Epidermoid carcinoma was the classification of 93 and adenocarcinoma of 7 per cent Adenocarcinoma carried a less favorable prognosis, as did carcinoma occurring in the cervical stump Seventeen and seven-tenths per cent of these cases were grade I, 25 3 per cent were grade II, 32 6 per cent grade III, and 24 4 per cent were found to be grade IV The five-year salvage for these grades was 69 0, 30 1, 15 9 and 5 0 per cent, respectively The five-year salvage for all cases was 26 2 per cent

Complications of treatment and/or disease were most common in the first period of the study There was a gratifying progressive increase in the five-year survival rate from the first to final period More early cases were seen in the last period than in either of the earlier ones, which is most encouraging

Routine physical examinations and the use of cancer detection clinics will bring in more early cases for treatment with a consequent higher salvage The intelligent use of improved radiation technics and equipment should lead further toward the same goal

Discussion

S R. Snow, Jr, M D, *Rochester*—As Doctor Karr has stated, this is the first comprehensive statistical study of carcinoma of the cervix at the Strong Memorial Hospital The yearly five- and ten-year arrests have been reported to our local cancer society for the last fifteen years

The core of the investigation is in the last two periods The first period covers the years in which the school was starting, organization was not too complete and the school at times a dumping ground for many hopelessly advanced cases Anyone who has worked in the tumor clinic looks with a sigh of relief at the end results of the last two periods They are better than he had dared hope, although they leave much to be desired.

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5,500 mg hrs Roentgen radiation was given using smaller doses per treatment and over a greater period of time, with a higher total dose Eighty-six per cent received 200 r to two fields per treatment, and over 80 per cent of the patients received more than 7,000 r total

The technical factors of the roentgen radiation, used in all three periods, showed variations in kilovoltage peak of 180 to 220 and milliamperes of 10 to 25, filtration was constant at 0 5 mm copper and 1 0 mm aluminum added The skin target distance varied from 50 to 70 cm Considerable variation occurred in the size and number of fields treated The size varied from 10 by 12 cm to 25 by 25 cm The number of fields used varied from one to six

It is important to note that roentgen radiation was given before radium in 75 per cent of the cases in the third period and in 59 per cent of the cases in the second period, while in the first period only 10 per cent were treated in this manner Only 5 per cent of the cases of the third period were treated by radium alone, while the second and first periods showed 10 and 17 per cent, respectively Those variations in method are well described by O'Brien in his historical review of treatment of carcinoma of the cervix [15]

It is believed that the complications of treatment, the complications of treatment and/or disease, and the survival rates are profoundly affected by these variations in method

Complications

The primary complications of therapy were more common in the first period, with some reduction in the second and a marked falling off in the third period

Major complications, such as fistulas, intestinal obstruction, ureteral stenosis, and pelvic abscess, cannot all be ascribed to therapy, since these can be natural consequences of the disease as has been shown by Sackett, Ingelman-Sunderberg, and Den Hoed, among others [16–18] Radiation therapy, however, cannot avoid some share of responsibility It is noteworthy that 58 major complications occurred in the first period, 40 in the second, and only 17 in the third When this is compared with the number of patients in the various periods (Table 6), this difference becomes more striking It is felt too that the difference in the number of advanced cases in the three periods can scarcely account for this discrepancy in number of major complications This problem receives more adequate discussion by Ingelman-Sunderberg and Corscaden *et al* [17 19]

The complication of fracture of the upper femur, so often emphasized, occurred three times in this series of 328 cases However, two of these were due entirely to trauma Radiation necrosis of the proximal femur was held to be responsible in one This gives a percentage of 0 3 per cent which corresponds with that reported by Stamfli and Kerr in their analysis of 1,372 cases [16] We continue to use lateral ports

Results

Results are given in Tables 5 and 6 Table 5 shows the distribution by grade and year period, the five- and ten-year survival rates for each

TABLE 5 —DISTRIBUTION OF CASES ACCORDING TO GRADE AND PERIOD

Grade	Year Period	Cases Number	Cases Per Cent	Five-Year Survival Number	Five-Year Survival Per Cent	Ten Year Survival Number	Ten Year Survival Per Cent
I	1926–1932	12	12 0	3	25 0	1	8 3
	1933–1937	11	10 2	11	100 0	6	55 0
	1938–1942	35	29 1	26	74 3		
	Total	58	17 7	40	69 0	7	12 1
II	1926–1932	23	23 0	6	26 0	5	21 7
	1933–1937	31	28 6	7	22 6	1	3 2
	1938–1942	29	24 1	12	41 4		
	Total	83	25 3	25	30 1	6	7 3
III	1926–1932	32	32 0	3	9 4	2	6 3
	1933–1937	35	32 7	7	20 0	4	11 4
	1938–1942	40	33 4	7	17 5		
	Total	107	32 6	17	15 9	6	5 6
IV	1926–1932	33	33 0	1	3 0	1	3 0
	1933–1937	31	28 0	3	9 7	0	0 0
	1938–1942	16	13 0	0	0 0		
	Total	80	24 4	4	5 0	1	1 3
Grand Total		328	100 0	86	26 2	20	6 1

TABLE 6 —SURVIVAL BY YEAR PERIOD

Year Period	Cases Number	Cases Per Cent	Five-Year Period Number	Five-Year Period Per Cent	Ten Year Period Number	Ten Year Period Per Cent
1926–1932	100	30 5	13	13 0	9	9 0
1933–1937	108	33 0	28	25 9	11	10 2
1938–1942	120	36 5	45	37 5		
Total	328	100 0	86	26 2	20	9 6

grade by the year period, and the totals for each grade

Table 6 gives the totals for each of the 5 year periods with five- and ten-year survivals Again it must be mentioned that deaths from whatever cause and all not followed cases are considered as dead of disease within five years

These tables reveal a five-year survival of 69 0 per cent in grade I, 30 1 per cent in grade II, 15 9 per cent in grade III, and 5 0 per cent in grade IV with a total five-year salvage of 26 2 per cent This compares with a five-year salvage of 27 4 per cent taken from the combined data covering 16,385 cases reported by Tod, Schmitz, Smith and Dresser, and Ingelman-Sunderberg [21–23 17]

From Table 6 it is seen that there was a progressively increasing five-year salvage from 13 0 to 26 05 to 37 5 per cent in the three periods This corresponds to the progressive increase in five-year salvage reported by others, among whom are Hurdon, Smith and Dresser, Heyman, Jacoby, and Richards There is also an increase in the number of those with grade I in the third period compared with either of the other two periods

Clinical grade is the *chief controlling factor* of five-year survival as demonstrated by the progressive drop from 69 per cent in grade I to 30 1 per cent in grade II to 15 9 per cent in grade III to 5 0 per cent in grade IV

Summary and Conclusions

This is a presentation of a series of 328 proved cases of carcinoma of the cervix uteri seen between 1926 and 1942 which received all radiation therapy in our hospitals The greatest incidence occurred in the fifth and sixth decades The age of the patient did not greatly affect the five-year survival. Abnormal vaginal bleeding was the most common symptom. Duration of symptoms was not indicative of the extent of the disease

Epidermoid carcinoma was the classification of 93 and adenocarcinoma of 7 per cent Adenocarcinoma carried a less favorable prognosis, as did carcinoma occurring in the cervical stump Seventeen and seven-tenths per cent of these cases were grade I, 25 3 per cent were grade II, 32 6 per cent grade III, and 24 4 per cent were found to be grade IV The five-year salvage for these grades was 69 0, 30 1, 15 9 and 5 0 per cent, respectively The five-year salvage for all cases was 26 2 per cent

Complications of treatment and/or disease were most common in the first period of the study There was a gratifying progressive increase in the five-year survival rate from the first to final period More early cases were seen in the last period than in either of the earlier ones, which is most encouraging

Routine physical examinations and the use of cancer detection clinics will bring in more early cases for treatment with a consequent higher salvage The intelligent use of improved radiation technics and equipment should lead further toward the same goal

Discussion

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THE NATIONAL HEALTH SERVICE

APPLICATION FOR PERMIT TO BE ILL

ame No Age
ddress

1 I hereby make application for a permit to be ill
2 I declare (*a*) that I have a pain in my
(i) Head (ii) Chest
(iii) Stomach (iv) Legs
(v) Arms (vi)
(*b*) that my complexion is (i) ruddy, (ii) pallid, (iii) green
(*c*) that I have broken my (i) arm, (ii) leg, (iii) back, (iv) engagement.
(*d*) that during the past twelve hours I have been sick times
(*e*) that I expect to be sick again in hours
(*f*) that I am afraid I shall (i) die, (ii) not die, (iii) live, (iv) not live.
(*g*) that I am off (i) food, (ii) drink
3 The name of my doctor/veterinary surgeon is
4 I am in (i) bed, (ii) pain, (iii) desperation, (iv) my coffin.
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This form when completed, should be submitted in triplicate to the local Health Officer Should the applicant die before the permit is issued the local Health Officer should be notified and a fresh application for a permit to be declared dead should be submitted by a relative or creditor
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DECLARATION I declare that all the particulars given above are true and that I am as well as can be expected.

Signed
Date

Form No 111/No 9/say/99

—*"Tonics and Sedatives," J A M A, November 13, 1948*

THE ORTHOPEDIC MANAGEMENT OF FOOT PROBLEMS IN CHILDREN

FREDERICK LEB LIEBOLT, M D , New York City

(From the Department of Surgery (Orthopedics) of the New York Hospital-Cornell Medical Center)

WHEN a newborn child is presented to the mother, one of her first acts is to examine the child's feet This is because of long apprehension concerning possible deformities of the feet and because the foot is an organ which can be seen and examined The mother's next period of interest occurs at the time the child begins to walk and is caused by her consciousness of the ordinary foot complaints in everyday life *It is the pediatrician* who is called upon to examine the feet at birth and again upon walking, making it necessary for him to understand the common foot problems in children and, in a large sense, to be able to treat and to give advice concerning the various conditions Not to do so may not only displease the mother but also may allow the little patients to be exploited and preyed upon by shoe salesmen, advertising agencies, and other unqualified nonprofessional groups To assist the pediatrician with the various foot problems, discussion is to be from a practical standpoint and limited to diagnosis and treatment without mention of theory, etiology, or unnecessary detail

Diagnosis and Treatment

Weak Foot.—This condition is one in which the longitudinal arch of the foot is relaxed (Fig 1) Other terms denoting the same condition are flat foot, flexible foot, strained foot, and static foot The diagnosis is established when the longitudinal arch is decreased and dorsiflexion of the foot is 15 to 30 degrees less than a right angle Most children are born with such findings, but the feet of about one half will develop normally without treatment Inasmuch as it cannot be determined in advance which group will develop normally, it is wise to *do nothing until the child begins to* walk Should the findings persist, a prescription should be given for well-made, solid leather shoes with thick soles, wedged 1/8 inch on the inner heel and 1/8 inch on the outer sole, the wedges to be placed outside and not inside the shoe Either high or low cut shoes may be prescribed, but booties, artificial leather, and soft sole shoes never should be used The child should not be allowed to go barefoot for any period of time The prognosis in such cases is good

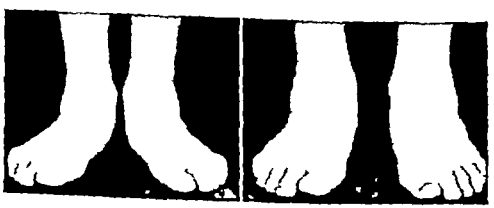


FIG 1 Weak feet Note on left that longitudinal arches are relaxed and on right patient is elevating the arches but cannot do so completely (compared with fig 5)

Talipes Calcaneovalgus —This condition is a severe, congenital form of weak foot Dorsiflexion of such feet often is 30 to 45 degrees less than a right angle, frequently allowing the dorsum of the foot to be pushed up and against the tibia, making the calcaneum prominent (Fig 2) At the same time the foot is everted, producing valgus and pronation (Fig 3) Often at birth the feet are fixed in dorsiflexion and eversion, causing alarm to the mother Academically, the condition belongs to the family of clubfeet, but this term should never be used to the layman because it stigmatizes the child for life for, in reality, the condition is nothing more than a severe type of weak foot At birth such feet may well be left alone, or at best, for reassurance, the mother may stretch the feet downward each time the diapers are changed The use of plaster casts, wedgings, braces, and splints are of no more value than



FIG 2 Talipes calcaneovalgus Excessive dorsiflexion allows dorsum of feet to reach the tibiae

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York New York City Section on Pediatrics May 20 1943.

This study was aided by a grant from the Marie Heye Clemens Fund, Inc.

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Address

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FIG 6 Cavus foot—high longitudinal arch hyperextension of metatarsophalangeal joints, and flexion of interphalangeal joints

metatarsal bars, and stretching exercises are useful in the early conservative treatment Later, transplantation of the long toe extensor tendons is indicated, and if, in addition, bony deformity is present, subtalar arthrodesis must be added

Köhler's Disease—This condition is an osteochondritis or inflammatory reaction resulting in flattening, condensation, and irregularity of the tarsal navicular (scaphoid) bone due to aseptic necrosis (Fig 7) [1] It occurs in children between five and ten years of age The symptoms consist of pain upon walking and tenderness over the navicular bone, often associated with redness and swelling The diagnosis is confirmed by x-rays Treatment consists of hot epsom salt soaks and massage for the pain and swelling and a monel metal or aluminum arch made from a plaster mold to fit and support the foot Inactivity, immobilization, and plaster casts are not necessary, and complete spontaneous recovery is the rule

Freiberg's Disease—This is another member of the family of osteochondroses which affect the feet of children [2] It is a progressive flattening of a metatarsal head, generally the second or third, due to a circulatory disturbance producing aseptic necrosis with fibrous tissue replacing the bone tissue (Fig 8) Gradually the metatarsal head develops a flat and deformed contour with increased calcification, a projecting bony rim, and, frequently, loose bodies The early symptoms are pain, swelling, and redness, and the late symptoms are those of metatarsalgia or pain in the metatarsal area of the foot Examination early reveals tenderness and swelling localized to a metatarsal head and, later, a palpable bony rim extending around the head and associated with slight shortness of the toe Early treatment should consist of hot epsom salt soaks, massage, and a metatarsal pad or metatarsal bar applied to the shoe or to an insole Again, immobilization is not necessary, for it has been shown to have no effect on the progress of the disease Later, surgery may be necessary in the form of excision of the bony rim of the metatarsal head, removal of loose bodies from the joint, or in some cases resection of the head of the metatarsal bone



FIG 8 Freiberg's disease Note flattening, calcification, bony rim, and loose bodies at third metatarsal head on the right

Calcaneal Apophysitis—This is an osteochondritis of the calcaneal tubercle and belongs to the group of osteochondroses (Fig 9) The symptom is pain at the insertion of the calcaneal tendon with the examination revealing an enlarged, mildly tender, calcaneal tubercle Treatment consists of hot epsom salt soaks and massage to relieve the pain and tenderness at the tubercle and elevation of the heel of the shoe to relieve the pull of the calcaneal tendon at its insertion Immobiliza-



FIG 7 Köhler's disease Note flattening, condensation, and irregularity of the navicular bone



FIG 9 Calcaneal apophysitis Note soft tissue swelling and irregularity at calcaneal epiphysis which is difficult to see in reproduced photograph



FIG 3 Talipes Calcaneovalgus Excessive relaxation of longitudinal arches and eversion of feet produce valgus and pronation

passive stretching, in fact, without any treatment the feet will resume normal position Upon walking the same treatment described above for weak feet should be employed, but no promises should be made as to prognosis because the congenital type of weak feet do not develop normal longitudinal arches The use of naviculocuneiform arthrodesis (surgical fusion of the two bones at the apex of the longitudinal arch) at about ten years of age when the bones are developed sufficiently is a well recognized procedure and quite useful in preventing symptoms later in adult life

Plantar Flexed Talus —This term is applied to a congenital deformity in which the talus (astragalus) is deviated excessively toward the sole of the foot (Fig 4) The talus carries with it the navicular bone producing a marked flattening of the longitudinal arch The diagnosis may be suspected if the longitudinal arch appears reversed like the rocker of a rocking chair and is confirmed by x-ray studies of the feet in the standing position Unfortunately, the condition is not amenable to conservative measures This is the proper case, however, in which to use arch supports in the form of dural aluminum or monel metal (as opposed to rubber) until the bones are developed sufficiently to allow subtalar (triple) arthrodesis to be performed to avoid the symptoms of flat feet in adult life



FIG 4. Plantar flexed talus Note talus deviates excessively toward sole of foot producing rocker deformity

Pronated Foot —This term is reserved for those feet which present a good longitudinal arch but which show an internal rotation of the foot upon standing (Fig 5) The condition is the most common foot problem in children It is frequently confused with weak foot, flat foot, and weak ankles but can be differentiated from these by placing the patient in a standing position and passively rotating the foot back to a normal position beneath the tibia At this time it will be noted that the longitudinal arch remains unchanged in height and that the foot has merely rotated inward at the talocalcaneonavicular joint Likewise, because of the medial inclination of the foot and tibia with prominence of the medial malleolus the impression is often gained that the ankle joint is weak, but such is not the case Correction is ob-



FIG 5 Pronated feet Note typical internal rotation of foot on left, while on the right, patient is correcting rotation showing longitudinal arch is normal (see Fig 1)

tained by inner heel wedges of $^1/_8$ inch, changed to $^3/_{16}$ inch when the child is three or four years of age, plus exercises designed to strengthen the anterior and posterior tibial muscles This exercise is done best by raising on the toes and then slowly rolling down the outer border of the feet until the heels reach the floor, contracting the anterior and posterior tibial muscles during the procedure

Cavus Foot —This condition consists of an excessively high longitudinal arch and over active long toe extensor tendons producing hyperextension at the metatarsophalangeal joints and flexion at the interphalangeal joints (Fig 6) Such findings should cause the examiner to think in terms of heredity, short shoes, poliomyelitis, congenital lues, or neurologic conditions affecting the posterior and lateral columns of the spinal cord Metatarsal pads,



FIG 14. Hallux varus Note on the right medial deviation of first toe, while the opposite foot is normal.



FIG 15 Accessory toes Note that although each forefoot is broad and the last metatarsal bone bifurcated the six toes of each foot appear normal, and surgery is not indicated



FIG 16 Accessory toes Note that because one of the seven toes on the left foot overlies the fourth toe, surgery is indicated

treatment Correction is obtained by arthrodesing the involved interphalangeal joint with the phalanx in straight alignment

Hallux Varus —This term is applied to abduction or medial deviation of the first toe (Fig 14) Although congenital, it is more or less a normal finding in infants It produces no symptoms and does not require treatment because as soon as shoes are worn the toe will assume a straight position

Accessory Toe —Not infrequently, children are born with extra toes, and whenever the x-ray studies reveal all digits to be normal, no treatment is indicated (Fig 15) However, at times the abnormal position of the toes or the projecting segments of bone produce a deformity which is unsightly or symptomatic due to shoe pressure (Fig 16) The only treatment is amputation of the supernumerary digit, preferably at birth.

Callosities.—So-called corns develop in children only on the toes, most frequently the first and fifth. The condition is a mere protective thickening of the skin due to abnormal shoe pressure It produces no symptoms, but the mother notices the skin to be red and thickened It is an indication of improper fitting of the shoes, either too short or too narrow, and is relieved completely by obtaining larger shoes

Metatarsus Varus —The common name for this condition is pigeon toe It consists of varus or adduction of the forefoot on the rearfoot (Fig 17) The deformity may be postural or structural, and this differentiation is extremely important because of the difference in treatment and prognosis

In the postural type, examination will reveal the deformity to be flexible and to be overcorrected easily by passive manipulation. Such a condition is frequently normal in infants, but internal tibial torsion and internal rotation of the entire extremity must be ruled out The treatment consists only of applying a wedge to the outer aspect of the sole of the shoe, measuring $^1/_8$ inch in young children and $^3/_{16}$ inch in older children Upon walking such wedges automatically change the forefoot to a straight position, and the correction gradually becomes permanent

In the structural type, examination will reveal the deformity to be fixed and overcorrection by passive manipulation not possible This type of deformity belongs to the clubfoot family, requires much more extensive and involved treatment, and the prognosis for full correction is much less favorable Treat-



FIG 17 Metatarsus varus Note on the right the forefoot is adducted on the rear foot while on the left the foot is normal.



FIG 10 Hammer toes—flexion deformity at proximal interphalangeal joint of each second toe

tion and inactivity are rarely necessary The prognosis is good

Hammer Toe —The term applies to a flexion deformity of either or both of the interphalangeal joints of any toe—generally the second (Fig 10) The condition is a congenital defect which bears no relation to footwear except that short shoes are a possible cause where the second toe is longer than the first toe The complaint generally is of a cosmetic nature on the part of the parent although later a dorsal callosity may develop and become painful to the patient Splints of all types and stretching of the deformity are of no value from a curative standpoint After about ten years of age arthrodesis of the affected joint may be performed for permanent correction and relief

Web Toe —This condition is a congenital defect in which segmental differentiation of the toes fails to take place (Fig 11) The webbing may be by skin and soft tissue or by bone The web may extend only to the proximal interphalangeal joint, to the distal interphalangeal joint, or to the tip of the toes Generally speaking, the digits are distinct with the bones, joints, and nails developed normally Inasmuch as symptoms rarely develop in such toes, treatment is unnecessary except occasionally when plastic repair is performed for cosmetic reasons



FIG 11 Webbed toes Note on left failure of segmentation of second and third toes which roentgenogram on right demonstrates to be due to soft tissue only

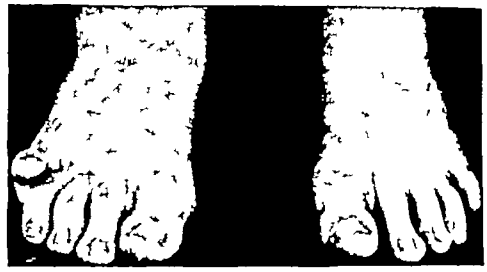


FIG 12 Subluxated fifth toe Note on left that fifth toe is displaced dorsally and adducted over the fourth toe

Overlapping Toe —This term applies to a congenital defect in which a toe is elevated above the adjacent toes, most often the second or third Splints to hold the toe in position or the strapping of the toe to an adjacent toe may be used but will not correct the condition Often the elevated toe will assume a normal position without treatment, but if the condition persists and becomes symptomatic later in life, amputation may be performed

Subluxated Fifth Toe —The condition is a congenital deformity in which the fifth toe is subluxated dorsally, rotated externally, and adducted over the fourth toe (Fig 12) In the past, surgery consisted of amputating the toe, but today the treatment of choice is to remove the contracture and straighten the toe by the Lantzounis procedure [3]

Varus Toe —This is another congenital deformity in which the distal phalanx of one or more of the lateral four toes is curved over or under the inner adjacent toe (Fig 13) Often the deformity is painful, due to weight bearing on the bottom toe or rubbing of the shoe on the top toe Generally, the deformity is fixed, preventing the use of conservative methods of



FIG 13 Varus toes—distal phalanx of each of the lateral three toes is curved under the inner adjacent toe.

CLASSIFICATION OF BONE DISEASES

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IN 1925, Mandl successfully removed a parathyroid adenoma in a patient with Recklinghausen's bone disease [1,2] This operation led to an almost complete clinical cure The patient, who had been confined to bed and who, for a long time, had been suffering excruciating pains, was soon able to get up and ultimately walked, even without the help of a cane

Mandl's discovery was, of course, received with great enthusiasm Everywhere physicians and surgeons searched for patients with Recklinghausen's bone disease, and the large number of successful operations reported in and near 1930 was, at least in part, the result of a careful culling of such patients from homes for incurable cripples in order to find as many candidates for parathyroidectomy as possible Soon it became evident that the diagnosis of Recklinghausen's bone disease required more careful criteria than the presence of a widespread or even generalized osteitis fibrosa with cyst formation as originally described by Recklinghausen.

Mandl, in his original publication, already insisted that before operation the calcium content of his patient's serum had been abnormally high and that the urine had been turbid due to excessive excretion of calcium phosphate After removal of the adenoma both these phenomena disappeared and returned to normal Other investigators elaborated upon these findings, and soon it was emphasized that Recklinghausen's bone disease is only one of the clinical entities which result when hyperparathyroidism due to hyperfunction of the parathyroids sets in.[3–5] For the diagnosis of Recklinghausen's bone disease the clinical picture, the anatomic findings in a biopsy of the bone, and the roentgenograms are of importance, but still more important is the presence of the biochemical syndrome of hyperparathyroidism This biochemical syndrome, which must be present before the diagnosis of Recklinghausen's bone disease can be made, consists of increase of the calcium content of the serum (normal 9 5 to 10 5 mg per cent), decrease of the inorganic phosphorus content of the serum (normal 3 to 4 mg per cent), excessive excretion of calcium in the urine, and excessive excretion of inorganic phosphorus in the urine

For completeness sake it may be added that when this biochemical syndrome is found, one or more parathyroid adenomas must be present, even if roentgenologic studies do not reveal clear-cut abnormalities of the skeletal structure In such cases of hyperparathyrodism without bone lesions the formation of renal stones is often the outstanding sign.[6]

Increase of the alkaline phosphatase of the serum is also a nearly constant sign of Recklinghausen's bone disease It is dependent upon the increase in bone reparation which is always present in this disease, but it is not caused by hyperparathyroidism per se

Only in patients with bone disease who exhibit the full biochemical syndrome of hyperparathyroidism is the search for a parathyroid adenoma indicated During the wave of enthusiasm which developed after Mandl's publication, many patients with cystlike areas on the roentgenograms suffered an unsuccessful exploration for a parathyroid adenoma Thus it soon became necessary to distinguish hyperparathyroidism from other bone diseases which had a certain similarity to Recklinghausen's bone disease This was the reason why in 1932 we described, together with Parisel, and in 1934, with Posthuma, two patients who, in our opinion, exhibited a syndrome which at that time was commonly diagnosed as Recklinghausen's bone disease, but which could be easily distinguished from this disease [7,8]

Case Reports

Case 1 —The first patient was a girl, ten years old, who had started to menstruate regularly when she was only seven years old When we saw her in 1932, she had already suffered five femur fractures in the course of the last three years Physical examination revealed extensive bone lesions apart from the presence of several small brown naevi on face and chest There existed gross deformities of the upper parts of both femora with swelling of both humeri Roentgenograms showed extensive cystlike areas in both femora and humeri and many other bones. A parathyroid exploration had been performed twice but without success

A biopsy in one of the pseudocystic areas showed that no actual cyst was present. There was a cavity filled with soft and friable bone tissue which at microscopic examination showed the presence of osteitis fibrosa and a few nests of xanthoma cells filled with double refracting particles, that is, cholesterol esters. After decalcification, bone trabeculae were found, between which fibrous marrow was present. In some areas, rows of osteoclasts adjacent to bone trabeculae were present.

This patient died in 1936 of a fibrosarcoma of the femur

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FIG 18 Talipes equinovarus—a true clubfoot on the left and a normal foot on the right.

ment should consist of wedging plaster casts in which the forefoot is forced gradually into a position of overcorrection and held there for six weeks

Talipes Equinovarus—This is the medical term for true clubfoot, and the colloquial term, "clubfoot," should be reserved for this type of deformity only It is an inherited and congenital deformity of a severe type (Fig 18) The prognosis for cure always must be guarded The diagnosis is established by the possible history of similar deformities in the family and the physical findings of a fixed deformity in which the forefoot is turned in, the heel drawn up, and the foot held in inversion and plantar flexion In those cases in which the diagnosis is difficult because the degree of deformity is mild, a simple method of establishing the diagnosis is to palpate the space between the navicular tubercle and the medial malleolus In the normal foot this space is the width of the little finger, and the two bones are never approximated, while in all true clubfeet the space is decreased in width, and often the two bones are in direct approximation The treatment of clubfeet is tedious, difficult, and highly technical It should be instituted at birth, even while the baby is still in the hospital, because the ease and degree of correction is related closely to the age of the patient Although many types of treatment have been and are being used, the most dependable and best established method for correction is to apply and to wedge plaster casts after the method of Kite [4] Surgery today is reserved for residual deformities later in life

Summary

Brief comments on the practical aspects concerning diagnosis and treatment of the ordinary foot problems in children is presented to the pediatrician

Discussion

Fred W Bush, M D, *Rochester*—The field of the pediatrician in the management of foot problems is closely linked to the orthopedic surgeon, in that early recognition and early orthopedic care of congenital malformations of the feet are very necessary to their correction Conditions requiring treatment must be recognized before contractions begin to take place in the ligamentous structures which would markedly increase the difficulty in manipulation and correction Every newborn infant should have a careful examination of his feet I agree with Dr Liebolt that many feet in the newborn that show bizarre positions frequently correct spontaneously What we, as pediatricians, are particularly interested in is the foot described as weak foot and pronated foot As children begin to stand, all show some degree of weakness—flat feet being universal Accompanying this in some cases is pronation and pigeon toe, whereas some cases are definitely what we feel are congenitally flat feet I agree that at least 50 per cent of the weak feet will correct themselves regardless of the type of shoe or treatment instituted In my experience congenital flat feet are usually painless and symptomless, and since they often remain so, my practice is to disregard them unless the child complains of leg aches The early shoes many pediatricians recommend are soft soled, flexible shoes I use these with no correction unless symptoms are present until the child is about three years of age, at which time a sponge rubber cookie for the longitudinal arch or wedging of the inner surface of the heel is advised This is done if the feet are not making progress or if the child complains of being tired after walking a short distance At this time exercises such as picking up marbles tiptoe games, and up-on-the-toes exercises are recommended I would be interested in Dr Liebolt's opinion of the moccasin type shoe and the various flexible soled shoes for children up to three years of age

I endorse the idea that it is our job to protect our patients from being exploited by shoe salesmen and shoemakers, and I feel very strongly that our examination should include advice as to foot care

The anomalies—webbed toes, accessory toes, hammer toes, crowded and overlapping toes—have been fully covered, and I am in agreement with the treatment offered The cases requiring surgery, however, are seen early more frequently by the orthopedic surgeon, I am sure, as are the cases in which the pediatrician finds himself at a loss to explain the pain of osteochrondritis of any of the bones of the foot

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addition, Jaffe has reported that occasionally one of the lesions may show exuberant growth and thus lead to the formation of a large tumor-like mass [14]

Jaffe and Lichtenstein carefully described the pathology of the disease [15] They emphasized that the cystlike areas are not actually cystic In these lesions the bone is replaced by a yellow-white fibrous tissue which is often gritty in character due to the presence of minute spicules of bone. The connective tissue is often arranged in characteristic whorls The bone spicules consist of trabeculae of partly calcified, newly formed bone which is formed by direct metaplasia of connective tissue As mentioned by Schlumberger, even the more mature trabeculae are deeply penetrated by bundles of collagenous fibers [16] Much less frequently, fiber bone and islets of cartilage are found within the lesion

It should be added that several investigators have confirmed our original observation of the presence of large islands of xanthoma cells in the areas of coarse fibrous tissue which replace the bone marrow Adams, Compere, and Jerome in one case stated that the pseudocystic lesion contained loose fibrous tissue and nests of xanthoma or foam cells [17] Coleman reported an autopsy case where, apart from the bone lesions near the hilum of the kidney, several irregular yellow masses were found [18] These masses were soft, ill-defined, not vascular, and resembled lipoid masses, somewhat like cortical substance of the adrenal glands Windholz mentions groups of xanthoma cells visible in the vicinity of blood vessels of which he presents an excellent picture [19] Albright and also Jaffe and Lichtenstein have always been of the opinion that these islands do not represent a primary lipoid granulomatosis The formation of the xanthoma cells was, in their opinion, secondary to the original pathologic lesions Windholz believes that the xanthoma cells indicate resorption of fatty material from the tissue of the dysplastic focus

Whereas we characterized this disease as a granuloma with tendency to xanthomatous infiltration, and thereby as a variation of Hand-Schüller-Christian's disease, Albright postulated a malformation of the central nervous system. Lichtenstein and Jaffe suggest that a developmental defect of the bone-forming mesenchyma may be the cause of this syndrome They are inclined to consider the individual bone lesions as tumor-like malformations resulting from flaws of development and characterized by defects of tissue combination. Thannhauser defended the opinion that a close relation exists between this disease and neurofibromatosis [20]

In many excellent articles on these remarkable skeletal lesions Albright and Jaffe have always insisted that this disease is a separate entity and that it is easy to distinguish between actual lipoid granulomatosis of the bones and the disease which is nowadays described as Albright's disease or polyostotic fibrous dysplasia Thus, in the course of years the differentiation of this clinical entity from Recklinghausen's disease of the bone has become less important than the speculations about its pathogenesis

Reviewing the data available in the literature, it must be conceded that no observer has reported gross areas of xanthoma tissue in patients with polyostotic fibrous dysplasia in whom pigmentation, precocious puberty, or segmental distribution of bone lesions were found at the same time. In one autopsy of a patient with fibrous dysplasia, reported by Sternberg and Joseph, careful anatomic examination failed to reveal the presence of lipoid granuloma [21] The bones of the right humerus and femur were examined, and no trace of lipoid granuloma was found In another autopsy which has not yet been reported in detail only two islands of xanthoma cells were found [22] Pigmentations with irregular edges and premature menarche have not been found in genuine cases of lipoid granulomatosis and favor the diagnosis of polyostotic fibrous dysplasia Albright has especially emphasized that, in the latter disease, on the roentgenograms not only bone destruction but also increased bone formation can be visualized, in lipoid granulomatosis hyperostosis or osteosclerosis allegedly does not occur [22] Jaffe has insisted that thickening and overgrowth of bone at the occipital squama, which, by the way, our very first patient in 1932 also showed, is of considerable importance for the diagnosis of polyostotic fibrous dysplasia [23]

Regardless of the question whether this syndrome is closely connected with xanthomatosis of the bones or not, these different diagnostic criteria are not always foolproof As originally defended, cases of burnt-out lipoid granulomatosis may be diagnosed as polyostotic fibrous dysplasia Such was the case in the patient described below

Case 3 —A thirty-one-year-old man was admitted in October, 1945 The actual complaint was right lower back pain of four months duration. Since the age of fourteen he had suffered several pathologic fractures In 1928 he broke his right thigh after a fall on the stairs, in 1929, he broke his left thigh while at play, in 1930, he broke his left tibia and fibula after minor exertion, in 1936, he broke his left fifth metatarsal while stepping from the curb onto the pavement. For the last six years he had been complaining of crampy sensations in the calves For twelve years he had had a swelling of the left lower jaw at one of the incisors Nothing in the history suggested the presence of diabetes insipidus or other endocrinologic disturbances. There were no bone diseases in the family Physical examination

Case 2.—The second patient was a man of thirty-five years whom we first observed in 1934. From the age of eleven till date of admission he had suffered two spontaneous fractures of the left upper arm, of the right upper arm, and of one finger Examination showed, apart from several large pigmented areas of the mucous membrane of lips and mouth, multiple lesions of the skeleton The face was asymmetric, there was considerable swelling of the right frontal bone above the superciliary arch, and roentgenologic examination showed the presence of extensive cystlike areas with thinning of the cortex in both humeri, in the right radius, in the scapula, in the left femur, and in the right calcaneus bone At the time we stressed the absence of hypercalcemia and hypercalciuria. In addition, we emphasized that, apart from the osteolytic cystlike areas, there was no thinning of the cortex of the bone of the rest of the skeleton In Recklinghausen's bone disease the osteitis fibrosa is generalized and also leads to a decalcification and destruction of the cortex of the skeleton in areas where no cystic degeneration has occurred

In view of the biochemical findings this patient could not suffer from hyperparathyroidism nor, therefore, from Recklinghausen's bone disease This was further confirmed at exploration when the parathyroids proved to be normal Biopsy of the left humerus and of the right humerus only showed the presence of osteitis fibrosa Not satisfied with these findings, we performed a biopsy of the left greater trochanter which again revealed the presence of osteitis fibrosa in which many islands of xanthoma cells filled with cholesterol esters were found

The biopsy reports, as published, read as follows

1 Right humerus Microscopically the cystlike area consisted of cellular connective tissue Many bone trabeculae were present, often surrounded by a zone of osteoid tissue In addition, there were bone trabeculae around which many osteoclasts were situated The pieces of bone cortex showed fibrous bone marrow, and the cellular fibrous tissue mentioned above was found at the inner side of these cortex fragments No lipoid-containing cells were present

2 Head of the femur A large number of tissue fragments varying in size from 1/2 cm. to 3 by 2 1/2 by 3 cm. were obtained, consisting of white somewhat glassy, firm tissue Many of these tissue pieces showed brown spots. Several irregular yellow spots to a size of 1/2 cm were also seen A few small pieces of bone were present Microscopically, the main part of the tissue consisted of fibrous connective tissue which in general was poor in nuclei A few remnants of bone tissue were found, occasionally surrounded by an osteoid zone

The yellow areas mentioned above appeared to consist of islands of typical xanthoma cells In the specimen, stained with sudan, these cells contained needle-like crystals which were bi-refractile and stained pale yellow Heating of the unstained specimen resulted in the formation of bi refractile drops

On the basis of these data the diagnosis of xanthomatosis of the bone was made

The pigmentation of the mucous membrane of lips and mouth and the findings of a slight hypotension led to the determination of the sodium content of the serum. As this was repeatedly found to be normal, the presence of Addison's disease could be excluded Treatment with cortical extract did not influence the condition

We thus defined a syndrome consisting of multiple cystlike areas of bone, normal structure of the skeleton in so far as it was not involved in this cystlike degeneration, osteitis fibrosa in which large nests of xanthoma cells could be found, absence of the biochemical syndrome of hyperparathyroidism, and absence of a parathyroid adenoma [9]

The separation of this syndrome was important in order to prevent unnecessary operations on the parathyroids At the time we were much impressed by the presence of islands of xanthoma cells As mentioned above, we even performed three biopsies on our second patient in order to find these islands In this respect we followed the example of Kienboeck who had insisted that cystlike areas of the skeleton may represent xanthomas or lipoid granulomas Thus, we carefully studied these cases for the presence of other signs of lipoid granuloma which, by the way, we could not reveal Nevertheless, we designated this new entity of skeletal disease as lipoid granulomatosis of the bones without signs of Hand-Schüller Christian disease

In 1937 Albright described several instances of this syndrome [10 11] He named this disease osteitis fibrosa with pigmentation (as present in both of our patients) and precocious puberty (as present in our female patient) In 1938, Lichtenstein, later Lichtenstein and Jaffe, stressed the fact that the bone lesion is the outstanding lesion of this syndrome [12] They make it clear that only one in every twenty to thirty cases that show these cystlike lesions of the skeleton also present pigmentations with irregular edges and precocious puberty They also insisted that the term osteitis fibrosa was unfortunate because osteitis fibrosa is too general a designation and rebaptized the disease as polyostotic fibrous dysplasia The latter name has become popular, although many clinicians use the name Albright's disease Monostotic fibrous dysplasia also occurs frequently In the course of years it has been brought out that in cases with multiple bone involvement the lesions are sometimes limited to one side of the body In our material this characteristic of the disease has occurred less frequently than has been emphasized Sexual precocity is relatively frequent in the female patients but has also been observed in a few instances in boys

In 1938, we described sarcoma development in an area of fibrous dysplasia as was later observed by Coley and Stewart and also by Jaffe [13] In

It may well be that this disease should be differentiated from lipoid granulomatosis of the bones. At the time it was more important to define the characteristics of the disease which permitted differentiation of this clinical entity from Recklinghausen's disease In addition, we have always insisted that some of the cases diagnosed as polyostotic fibrous dysplasia, even those presenting marked hyperostosis, may represent burnt-out cases of lipoid granulomatosis of the bone. One case illustrating this possibility is reported here.

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CONTAMINATION OF FOOD PUBLIC HEALTH HAZARD

Poisons that remain in foods after preparation for the table are a hazard to public health, warns James R. Wilson, M.D., Chicago, secretary of the Council on Foods and Nutrition of the American Medical Association.

Dr Wilson points out the need for protection against such contamination of food in an article on pesticides which appears in the January issue of *Hygeia*.

The pesticides, or poisons, to which Dr Wilson refers are relatively new products introduced during and after World War II. Pesticides include insecticides, such as DDT, used to combat insects that damage crops, fungicides, used to combat plant diseases, herbicides, or weed killers, and rodenticides, used in the control of rats and mice

Fresh fruits and vegetables are considered dangerous because there is little protection to the consumer at this time against contamination of them with pesticides. Manufacturers of infant foods are refusing to accept from growers fruits and vegetables which contain DDT or other residues which cannot be removed in processing Canners have developed satisfactory methods for removal of the residue from certain fruits however

Steers fed on food contamined with DDT store the material in their body fat, and cows not only store it but also excrete DDT in their milk. Dr Wilson says that this matter is being studied

BHC—benzene hexachloride, one of the newer insect killers—and parathion, another new insecticide, apparently penetrate the surface of plants and are incorporated in the tissue. These penetrating poisons cannot be entirely removed by washing or peeling, the article indicates.

The Council on Foods and Nutrition has warned against indiscriminate use of these pesticides and has urged that measures be taken immediately to insure adequate protection for consumers "Disastrous consequences seem a certainty unless the use of the new pesticides is surrounded by better safeguards than now exist," Dr Wilson says "Concerning their toxicity to man, there is a shocking lack of factual data having to do with the effect of these substances when incorporated in foods and eaten. Little of practical value is known of how human beings withstand small amounts over long periods of time Adequate toxicity studies are essential for the establishment of safe methods for the use of these poisons"

showed the presence of approximately twelve small, discrete, soft, dark brown elevations over arms, back, and abdomen These were not café-au-lait spots but probably small moles The left leg was about 1 cm. shorter than the right

Laboratory examination showed that the urine and the total blood count were normal. Blood urea nitrogen was 13 mg per cent, fasting blood sugar, 65 mg , serum calcium, 11 5 mg , phosphorus, 3 0 mg , alkaline phosphatase, five King-Armstrong units The cholesterol was moderately increased, total cholesterol was reported as 380 mg , 420 mg , and 480 mg , cholesterol esters, 225 mg and 235 mg Renal function, as demonstrated by the concentration and phenolsulfonthalein tests, was normal. The basal metabolic rate was plus 1 per cent On a calcium-poor Bauer-Aub diet, the urinary calcium excretion was moderately increased, 657 mg in 2,250 cc of urine in the course of three days

The roentgenologic report read as follows

> Examination of the skull, long bones, feet, lumbar vertebrae, and pelvis shows considerable mottling of the bones of the calvarium which appears to be due to irregular areas of increased and decreased density The outlines of the sella turcica are normal There is a large ovoid cystic area in the proximal phalanx of the left fourth finger, causing local expansion of the bones and bulging of the lateral cortex. The other bones of the hand do not appear abnormal No abnormality in the bones of the forearm and arm or bones of the feet is to be seen, nor any distinct abnormalities in the lumbar vertebrae or the innominate bones There is a deformity of the left femur in its mid-third, due to an old healed fracture, and a small area of rarefaction in the outer cortex at the upper end of the right femur A transverse line of decreased density in this area suggests an infarction of the cortex. The cortex at the outer aspect of each tibia in its middle third is considerably thickened In the mandible, a considerable irregular area of rarefaction in the anterior portion of the left side is present The changes do not appear to indicate the presence of hyperparathyroidism but of a polyostotic fibrous dysplasia

A biopsy of the skull showed that the marrow spaces were filled with fibroblasts and a network of fine, connective tissue fibrils Numerous plasma cells, lymphocytes, and histiocytes were found in this fibrous tissue A biopsy of the cystic lesion of the left fourth finger showed the presence of a lipoid granuloma.

The presence of cystlike changes and hyperostosis in different areas of the skeleton, especially in the skull and around the cystlike phalangeal lesions combined with the normal calcium, phosphorus, and phosphatase levels in the serum, actually seemed to favor the diagnosis of fibrous dysplasia In view of these roentgenologic signs, the moderate hypercholesterolemia was disregarded The biopsy of the phalangeal lesion revealed the presence of lipoid granulomatosis The lesion of the skull was probably older, which would account for the extensive osteitis fibrosa found there True, the skull lesion did not show the whorls of coarse and thick fibrous tissue characteristic of fibrous dysplasia of the bone However, the lesion was evidently old enough to have resulted in areas of hyperostosis of the skull

It may be questionable whether the islands of xanthoma cells which occur in Albright's disease or polyostotic fibrous dysplasia justify the diagnosis of lipoid granuloma. However, it follows from this case that lipoid granulomatosis of the bones may terminate as fibrous osteitis with hyperostosis and that competent radiologists may diagnose it as polyostotic fibrous dysplasia.

Summary

As early as 1932 and 1934, we described two examples of a disease characterized by the presence of multiple cystlike changes of the skeleton which until this time had always been diagnosed as Recklinghausen's disease of the bones One of the patients was a girl in whom menarche had started at the age of seven, both patients showed hyperpigmentation and osteitis fibrosa At the same time we stressed the presence of osteitis fibrosa with islands of xanthoma cells in both patients In view of the latter finding we assumed that the diagnosis of lipoid granuloma of the bones was in order The occurrence of accumulations of xanthoma cells in the fibrous bone marrow has been confirmed repeatedly

We differentiated the syndrome which these two patients exhibited from Recklinghausen's disease because the characteristic biochemical features of the latter disease were absent and because the cortex of the bones was normal except in the areas where the cystlike areas had developed We carefully described the histology of the disease

In 1937, Albright described seven cases of this syndrome as osteitis fibrosa with pigmentation and precocious puberty In his opinion this disease is a separate entity and is not connected with lipoid granuloma of the bone In 1939, Lichtenstein and Jaffe concurred with this opinion, described the histology of the disease in detail and designated it as polyostotic fibrous dysplasia The cystlike lesions represent areas where cancellous bone and bone marrow have been replaced by firm fibrous tissue, arranged in interlacing bundles and whorls In this fibrous tissue, a considerable number of minute spicules of immature bone, and sometimes islands of cartilaginous tissue, are found In older lesions, sclerosis of the bones develops Cutaneous pigmentation is found in a considerable number of these cases, and in the female patients premature sexual development is commonly present

Both authors insist that pigmentation, precocious puberty, and hyperostotic lesions favor the diagnosis of fibrous dysplasia of the bones and exclude the presence of lipoid granulomatosis

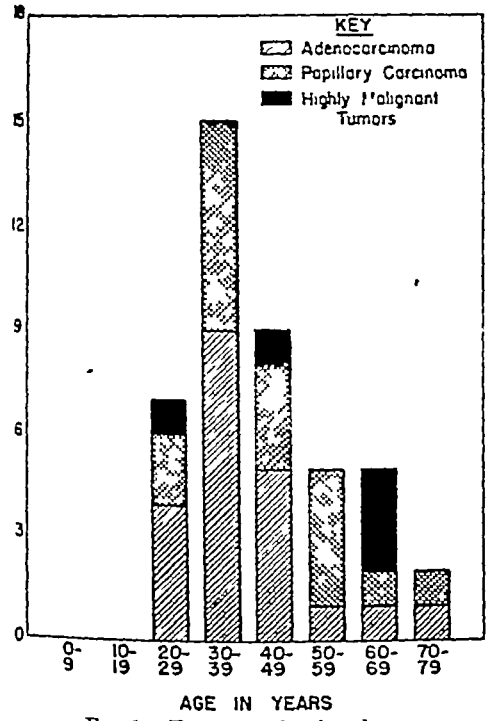


FIG 1 Frequency by decades

agnosed clinically in all the others except one, and in that case the malignant character of the growth was recognized at operation. The percentage of cases with sufficient evidence to suggest a clinical diagnosis of cancer is the same as the average reported in the literature.[4,10,11]

In 41 of these cases follow-up information is available through personal observation or a statement from the family physician Two patients are known to have local persistence of their disease Two patients had recurrence of the disease with excision of the recurrence one year and five years after the original operative procedure Both are still alive, one patient eight years and the other thirteen years after the first operation Two instances of lateral aberrant thyroid tumors are included, one of which had the primary tumor excised while the other did not The latter patient had been operated on before coming to our hospital when a nodule in the cervical lymph node chain was removed In our hospital another surgeon removed a second tumor but did not do a homolateral thyroidectomy in spite of a palpable nodule in that lobe A third nodule has since been removed from this patient in another city This case supports the belief that all lateral aberrant tumors represent metastases from a primary lesion in the homolateral lobe of the thyroid gland

Of 25 patients who were operated on more than five years ago, five are known to be dead Four were followed for only one to two years The remaining 16 cases are alive and well six to seventeen years postoperatively Eighteen patients were operated on during the years 1943 to 1947, inclusive. Of these, three are dead because of their disease, and two are living with persistence of the cancer

In any study of this type it is essential that the factors used to establish a diagnosis be clearly set forth The criteria used in this review were those emphasized by Graham as significant in the separation of early malignant from benign thyroid tumors.[12] Invasion of the tumor capsule, extension into surrounding normal tissues, penetration through the endothelium of blood vessels, or a combination of these features was found in each of the cases diagnosed as malignant (Fig 2) A large group of cases was found in which acini, parts of acini, or groups of tumor cells were present in several blood vessels and in more than one section (Fig 3) The significance of this finding is not clear Are these isolated acini or cell groups in vascular lumens to be accepted as evidence of blood vessel invasion? In general, we believe they are not However, multiple sections in one such neoplasm did reveal a point where cells from the tumor itself were actually penetrating the endothelium and extending into the vessel lumen, indicating that the isolated cell groups present in the vascular lumens at a distance from the point of penetration did originate in the tumor Many tumors that showed this finding were hyperplastic adenomas, and a study is now under way to determine whether or not Loeb's finding that regenerating thyroid tissue can invade blood vessels applies to hyperplastic thyroid epithelium [13] At the present time, however, we cannot accept the finding of isolated acini or tumor cells in blood vessels as valid evidence of malignant change, since such acini may represent artefacts produced during manipulation of the tissue



FIG 2 Capsule invasion.

THE RELATION OF SINGLE NODULES TO CANCER OF THE THYROID GLAND

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THE frequency of malignant disease of the thyroid gland has been indicated in relation to many different factors Watson and Pool stated that thyroid cancer comprised 0 43 per cent of the general admissions to Memorial Hospital, New York.[1] Smith, Pool, and Olcott give the frequency as 2 5 per cent of all thyroid specimens, and Cattell reported 2 3 per cent malignant in relation to all thyroid operations [2 3] Many authors compare the frequency of cancer to nodular goiters and their reported figures are as follows Pemberton 4 9 per cent, Cole, Slaughter, and Rossiter 7 2 per cent, and Hinton and Lord 7 6 per cent [4–6] In Boston, Vanderlaan could find only five cases of malignant thyroid disease in 18,669 autopsy protocols, but Schlesinger, Gargill, and Saxe in the same city studied 1,373 necropsies to find 112 nodular thyroid glands of which 4 5 per cent were malignant [7 8] This confusion concerning the actual incidence of malignancy must certainly create an attitude of indifference on the part of those doctors whose contact with thyroid cancer is infrequent

During the past few years increasing attention has been paid to single nodules in the thyroid gland as a source of malignant disease This comparison has the advantage of more forcibly impressing physician and surgeon with the importance of nodular goiter, because Cole *et al* reported that cancer was found in 24 per cent of 92 cases of nontoxic single thyroid nodules, and Ward found malignancy in 14 of 100 patients with solitary thyroid tumors [9] Because of this trend it was decided to limit this study to the frequency of cancer in single thyroid tumors Our results follow the pattern of the published statistics, and they re-emphasize the often repeated and often neglected admonition to remove nodular goiters

From the office records of over three thousand patients with nodular goiter operated on from 1930 to 1947, inclusive, 1,684 cases were selected because the examiner noted a single tumor The hospital charts on this latter group were reviewed, and any suggestion of multiplicity of nodules in either the operative finding or gross pathologic description disqualified the case for this study Three hundred eighty-two cases were finally selected as acceptable for the investigation, and the original microscopic slides on all of this number were studied histologically Thirty-two patients in this group had been given an original diagnosis of cancer, and in three more the pathologist was suspicious of malignant disease. The remaining 347 cases were all diagnosed as benign on the original pathologic examination

In their initial review of the histologic preparations the authors eliminated those cases that were clearly benign. Any variation in architecture was an indication to prepare additional microscopic sections from the original tissue blocks. One hundred forty-three cases were restudied after preparation of new slides, and, of these, 69 were retained for further examination. These 69 single tumors still regarded as "possibly malignant" were then reviewed, and finally, the sections on 25 remaining cases still suspected of malignancy were examined *

Among the 347 cases originally diagnosed as benign, ten cases were found with sufficient histologic evidence to call them malignant Histologic evidence of malignancy was present in several additional cases that had to be excluded because, in spite of the fact that only one tumor was found grossly, multiple tumors were found on microscopic examination Two of the three cases termed "suspicious" on the original pathologic report are still regarded with suspicion and are not included in the malignant group One of them, however, is now considered definitely to be cancer and is included In our entire series of 382 cases of single thyroid tumors then, 43 are considered malignant, an incidence of 11 25 per cent Analysis of the types of tumor found revealed 17 cases that were papillary in their architecture, 21 that were adenocarcinomas, and five which were highly malignant lesions The relative frequency of these tumor types by decades is indicated in Fig 1

In only two of the 43 patients was there evidence of thyrotoxicosis A clinical diagnosis of benign tumor was made in 26 of the 43 cases now considered to be malignant This fact adds emphasis to the belief that single tumors of the thyroid are more dangerous than is generally accepted Malignant disease was suspected or di

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* The authors acknowledge their indebtedness to Dr G H Klinck Jr associate in pathology Albany Medical College and director of laboratories Samaritan Hospital Dr James R. Roberts assistant professor of pathology and bacteriology Albany Medical College and Dr A W Wright professor of pathology Albany Medical College Appreciation is also expressed to Dr Allen Graham for constructive comments on the text.

SYMPATHECTOMIES

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IT WOULD be a pleasant exercise at this time to discuss thoroughly the anatomy and physiology of the sympathetic division of the autonomic nervous system, for it is better knowledge of these subjects which has increased the indications for surgical and chemical attacks on the system However, since this is written mainly to stimulate an interest in the clinical effects following ablation of sympathetic nerve impulses, only the high points of those subjects will be recalled

When a sufficient number of good therapeutic results are reported or have appeared in my personal experience, an epitomized case history or subject-summary will be presented In each category of indications there may be less than good results or failures, but if even in a few cases there is sufficient evidence of value, it is fair to consider further trials Of great significance when poor results or failures are reported are the questions of completeness of operation, correct application of blocking needles, or proper diagnosis or selection of cases in the beginning The beneficial results of the therapy under discussion would have more universal application if we kept in mind the physiologic actions of the system and recognized the results of overstimulation

Results of Stimulation

Objective—A man, paralyzed by fright, exemplifies the activities of the system for easy remembrance His hair "stands on end," his pupils dilate, his mouth is dry, sweat pours from him, his hands and feet are cold, he trembles, his heart pounds, and his blood pressure goes up For the time, he is incapable of activities which make life worth while He is a completely adrenergic individual Sympathetic nerve end organs and adrenal glands are pouring their activators into his blood The kidneys add renin and the hypophysis pituitrin, the whole process starting in the frontal lobes of his brain

In a lesser degree which we might picture as a chronic, mild fright-state, man exhibits similar signs Subtract worry from the mind of the man with a hypersensitive sympathetic nervous system, and you will have little need for sympathetic nerve surgery Prolonged stress of this sort or recurrent attacks of overactivity of the system are, so far as we know, the basic causes of many of the disease entities we are considering Blood vessels contract, as in vasospastic diseases of which Raynaud's, and perhaps early Buerger's, are extreme examples Into this category also fall the vascular spasms accompanying postinfantile paralysis, extremity traumata followed by causalgia Sudeck's disease, thrombophlebitis, and the vasospastic phenomena following frostbite, sprained ankles, sprained shoulders, and the like

Sweat gland hyperactivity is seen clinically in cases of profuse sweating (hyperhidrosis) which at times becomes almost completely disabling Constantly wet hands and feet often make the sufferer a social and occupational outcast Severe obstipation may result from hypertonic activity of the smooth muscle sphincters of the rectum

Subjective—Pain impulses are carried in sympathetic nerve trunks by means of pain fibers similar to those found in the somatic nervous system. Pain is initiated by contraction or distention of viscera and blood vessels beyond physiologic limits Examples are primary dysmenorrhea, pain of aortic aneurysm, angina pectoris, painful herpes, intractable pain of the gastrointestinal tract and the pancreatic and biliary tracts [1-3]

It is in the latter category that most recent advances have been made This is true also of cervical sympathetic block, surgery for relief of vasospastic types of headache, and, most recently, intractable asthma [4,5]

Testing

The simplicity of paravertebral procaine block procedures as a means of testing the results of ablation of sympathetic nerve impulses should shorten the period of disability of many patients Too often there is long delay while various physical therapy, medical, and orthopedic procedures are tried It is well known that the trigger reflex action, which results in vasospastic phenomena and pain, may be stopped by a ganglion block.

A general block may be obtained by the use of tetra-ethyl-ammonium chloride This substance is being used to aid in determining the

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FIG 3 Tumor acini in blood vessel Not acceptable as blood vessel invasion

Our series is too small to be statistically significant as to the relative frequency of the various types of malignant disease of the thyroid gland The variations in architecture are, however, associated with well recognized characteristics of growth and metastasis that result in slight modification of the surgical treatment for each form Thus, papillary tumors account for about 30 per cent of all thyroid malignancies [4] They may recur or metastasize as long as twenty years after the original diagnosis [14] The survival rates reported are as high as 80 per cent alive after five years [15] Complete hemithyroidectomy and removal of the lymphoid tissue when involved is sufficient surgery in the usual case to eliminate the disease [16] Total thyroidectomy should be done when the lesion is near the midline Willis says, "Papillary adenomas cannot be distinguished from papillary carcinoma "[17] The prognosis must always be guarded.

The large group of adenocarcinomas is notorious for its invasion of blood vessels, and this fact may easily result in the early appearance of metastases from a tiny nodule The prognosis in most of these cases is five-year survival in 70 per cent, but the histologic finding of solid foci of anaplastic cells is an ominous sign that reduces the five-year survival to about 30 per cent of the cases [3] The tendency to blood vessel invasion requires radical excision of overlying muscles and all veins, including the internal jugular

Highly malignant tumors are usually rapidly fatal regardless of the therapy Extensive surgical removal of the growth combined with deep x-ray treatments has, according to Cattell, improved the five-year survival rate [3] Unfortunately, most of these tumors, except reticulum cell sarcoma, are radioresistant. Only one patient in this series of highly malignant types is living with persistence of an epidermoid carcinoma first diagnosed two years ago

The histologic recognition of early cancer in the thyroid gland is extremely difficult, especially in tumors presenting the first two types of architectural change Pathologists who have studied many thousands of thyroid specimens do not always agree on the benign or malignant nature of a given tumor Even in our small series the three pathologists have expressed different opinions regarding the benign or malignant nature of a few tumors A majority opinion has prevailed in the final interpretation, but wherever possible, a benign diagnosis has been accepted

We hope that this study will stimulate critical thought devoted to the development of minimum standards for interpreting existing criteria. The development of new and more consistently reliable aids in the separation of benign from malignant thyroid lesions is certainly a field for future investigation Our review emphasizes the fact that greater experience in the diagnosis of thyroid tumors results in an increase in the number of accurate diagnoses An important part of this experience is the knowledge that study of many sections, preferably serial sections, of a suspicious neoplasm is absolutely essential if a correct histologic interpretation is to be obtained The pathologist, therefore, has an extremely important role in the management of the thyroid cancer case because both the treatment and the prognosis are influenced by the type of tumor removed

Summary

1 This retrospective study of 382 single thyroid tumors revealed 43 cases of malignant disease, ten not previously recognized

2 Minimum standards for interpreting the existing criteria by which early malignant lesions are separated from benign thyroid tumors must be more widely established because of the influence the histologic diagnosis has on the treatment and prognosis

3 Malignant change occurs in a much higher percentage of single thyroid tumors than has heretofore been generally accepted

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the same. But it didn't break out in ulcers I wish now I had let you operate on that one too."

This story is typical after sympathectomy in one of these cases. It seems unfortunate that the opportunity for relief by sympathectomy in this group of cases is not more widely recognized.

Buerger's Disease.—W. L. M. presented himself with a typical picture of bilateral thrombo-angiitis obliterans. There was an ulcer at the base of the right third toenail, his feet were red and cold. He had been unable to do his work as a plumber for six months because of intermittent claudication, which limited his walking ability to half a city block, and the coldness of his feet which was at times almost unbearable. The acute symptoms were apparently precipitated by an attack of virus pneumonitis in April, 1946. A bilateral lumbar sympathectomy in two stages was performed in October, 1946. Both feet and legs became dry, warm, and comfortable.

He reported for observation on March 30, 1948, and has been working steadily for one year without a lost day. His legs and feet are dry and warm. There have been no ulcers. If he walks too fast, his calves begin to cramp after a block and a half. Going slowly, he has no trouble. He does not use tobacco.

This is a fairly typical story of Buerger's disease treated by sympathectomy. These patients must continue on a careful regimen and must not overload a circulation which, while no doubt better than it was before operation, is still encumbered by diseased vessels. Much depends upon the sympathectomy-established collateral circulation. It would seem that early operation in Buerger's disease should be an almost routine procedure. It would save the patient much expense and many time-consuming medical measures, to say nothing of reaching the point where sympathectomy would be useless and have to be replaced by amputation.

Indolent Varicose Ulcers.—Mrs. J. C., age forty-one, seen in December, 1946, had had varicose ulcers of her right leg for thirteen years and of the left leg for four years. She had had every known treatment, including venous ligations and repeated skin grafts which were not successful. Following a bilateral, two-stage, lumbar sympathectomy in December, 1946, the ulcers on both legs healed under ordinary treatment of cleanliness and epithelium-stimulating applications.

This also is a rather extreme example. Earlier recourse to sympathectomy would have saved this woman much disability and misery. Improved circulation and a warm, dry envelope of skin, under which all cell metabolism is improved, are the bases of beneficial results.

Amputations.—Preamputation sympathectomy has aided materially in healing stumps of extremities and, in some cases, has allowed lower amputations, even when it seemed useless to subject the patient to the procedure in arteriosclerotic disease. There are some contraindications to sympathectomy in obliterative arterial disease where it might be hoped that the extremity could be saved by sympathectomy.

Relief of Pain—Dysmenorrhea.—Miss M. W., age eighteen, suffered from severe primary dysmenorrhea, periodically disabling for one day. No relief was gained from medical measures except opium derivatives. Without the patient's knowledge (but with the parent's consent), a resection of the superior hypogastric plexus ("presacral nerve") was done, incidental to an exploratory celiotomy for generalized, right-sided abdominal pain. A defect in the mesentery had allowed the jejunum and upper ileum to slip through and lie in the right side of the abdominal cavity. Three weeks after the operation, the patient, in school in New England, delightedly telephoned her mother, vacationing in Florida, that she had had a period and did not even know it had started. This freedom from cramps continued. She was married seven months later, and ten months later while at home, she experienced a slight abdominal crampy feeling, which she attributed to being preliminary to a bowel movement. Two hours later, after a drive of twenty miles to the hospital, her baby was born. She just made it.

It has been said that most cases of dysmenorrhea are of a psychologic nature, that operations, when effective, were on that basis. This case, even though it is but one, should help to explode that theory. It is to be further noted that obstetricians have reported similar experiences, nearly painless deliveries, in patients who have been delivered following resection of the superior hypogastric plexus.

This is an operation which requires most meticulous resection of all fibers leading to the plexus, otherwise pain impulses, even though remaining fibers are few and small, may still be transmitted and the operation, rather than the operator, blamed.

Abdominal Visceral Pain (Unexplained).—Resection of superior mesenteric plexuses and celiac ganglia has resulted in relief of unex-

drop in blood pressure which may be expected following sympathectomy and for relief in certain painful conditions, of which herpes zoster is an example While it has been used in attempts to determine the value of proposed sympathectomy in peripheral vascular diseases, its value in this respect or as a therapeutic measure is doubtful

Examples of Use

Necessarily epitomized, the following examples are offered as being typical of what may be expected They are given in this manner in lieu of a detailed discussion which would require a separate paper for each entity and defeat the purpose of this presentation

Extremity Pain Followed by Disability—Mrs F I first noticed pain in her right shoulder when she was ironing The pain increased daily until any movement of the arm or hand was impossible The fingers became blue and cold and moist Finger movement caused pain She was admitted to a hospital on July 17, 1942, three weeks after the onset of symptoms At that time, her shoulder, elbow, and fingers were stiff Heat treatments and massage were given After two weeks without benefit, the orthopedic service was called in Her arm was placed in overhead traction for two weeks Then, under intravenous anesthesia, the shoulder, elbow, and fingers were manipulated twice a week for about two months There was no betterment The prospect of complete ankylosis of the entire right upper extremity was imminent

However, after the first stellate ganglion and upper thoracic block with 15 cc of 1 per cent procaine solution, the patient's hand became warm and painless She was able to attempt movements Two more blocks were given at intervals of a few days The improvement was progressive The patient cooperated willingly, manipulating her fingers with her left hand and raising her arm of her own volition There was no pain In a few months she was crocheting

There has been no recurrence, and at the present time all motions are normal She is working as a practical nurse

This is an extreme example, but it gives the lead to early treatment of similar disorders of lesser degree but of equally painful beginnings The vasospastic nature of the picture, with lack of nutriment to the involved parts, is indicated in the case of Mrs F I by the fact that she found it unnecessary to cut her fingernails during the entire period preceding the procaine blocks There was no osteoporosis

The osteoporosis of post-traumatic painful osteoporosis (Sudeck's disease) is, no doubt, of similar nature, i e , based on vasospasm and lack of proper nutriment to the involved bones The results of block in these cases are similar Extremity pain after trauma (often forgotten by the patient) should have early trial block of the regional sympathetic nerve ganglia as the treatment of choice

Thrombophlebitis.—Mrs D D was admitted to the hospital with a left leg thrombophlebitis On the night of admission her temperature rose to 105 F , and the patient was delirious When seen the next morning, the leg looked like a well-boiled sausage—as if steam would escape if it were pricked with a pin Tenderness was extreme A needle was inserted at the level of the first left lumbar ganglion, 15 cc of 1 per cent procaine solution was injected With a properly placed needle this amount of solution spreads to neighboring ganglia It is not necessary to use several needles At the end of twenty-four hours the leg was half its former size and painless to pressure The temperature was normal In three days the leg was normal in size The patient left the hospital seven days after admission.

Typical Raynaud's—E J , manager of a shoe store, noticed an increasing inability to fit shoes because he could not flex his fingers. Examination revealed Raynaud's syndrome with scleroderma of the dorsum of both hands A cervical sympathectomy resulted in gradually increasing flexibility of the skin which allowed him to approximate thumb and fingers and finally resulted in complete rehabilitation However, he should have had the benefit of the operation long before the onset of scleroderma

Infantile Paralysis—Miss G E , age thirty-six, had had anterior poliomyelitis at the age of six Both lower extremities were affected The right leg became unbearably cold during winter months with ulcerations the past two winters The left leg was cold but not so severely Right lumbar ganglionectomy and trunk resection were done at age thirty-six, in September, 1944 During her stay in the hospital, the patient repeatedly remarked that the leg was warm and comfortable for the first time within her memory In June of the next year, she reported that the leg no longer became swollen as it formerly did on hot days Her subjective symptoms are explained in a letter dated March, 1946 "My leg kept warm all winter, but my other leg was cold about all the time I wore wool underclothes and was in a furnace-heated house, but the leg was cold just

sympathetic nerve impulses in certain diseases are added The purpose of the paper is a general stimulation of thought on therapeutic measures which are, as yet, not sufficiently recognized by the general medical profession

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GASTROINTESTINAL ANOMALIES

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THE newborn, full-term infant is an excellent surgical risk and will readily withstand operative procedures for the correction of congenital anomalies of the gastrointestinal tract Recent advances in maintaining physiologic balance, in surgical technic, and in the use of antibiotics now make it possible to perform difficult surgical procedures on newborn infants The general surgeon has a very definite obligation to acquaint himself with these newer methods General hospitals are now equipped to prepare these infants for surgery, to provide the necessary equipment for anesthesia and operation, and to care for them postoperatively The pediatrician or general practitioner must be convinced of the need for early diagnosis in infants presenting these congenital defects Developing a philosophy of treatment of these gastrointestinal deformities in the presence of other defects is most important It is a common belief among pediatricians that operations upon babies with multiple congenital anomalies is a waste of time Over 25 per cent of the infants with congenital anomalies of the gastrointestinal tract will show another congenital anomaly If the defect is amenable to surgery, there is no reason why it should not be attacked

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The Pediatric Service at the Methodist Hospital makes the diagnosis of congenital anomalies of the gastrointestinal tract within forty-eight hours Vomiting is considered the most important symptom, even though it occurs in most newborns How is one to determine whether or not he is dealing with an intestinal obstruction? The vomiting which becomes more frequent and intense with successive feedings is not normal Immediate regurgitation suggests atresia of the esophagus Bile-stained vomitus with milk curds suggests a high atresia, beyond the ampulla of Vater Malodorous and fecal vomitus suggests low atresia

The most outstanding aid to diagnosis is the roentgenogram. The use of barium in the diagnosis of any intestinal obstruction in the newborn is to be decried Not only does the barium regurgitate into the tracheal tree and cause bronchopneumonia, but it prevents the proper handling of the bowel at the time of operation. There is never any need to use barium for visualization in a newborn infant If contrast medium is indicated, a dilute solution of lipiodol will suffice.

With these few general remarks, I wish to discuss in detail the more recent developments in management of congenital atresia of the esophagus, congenital diaphragmatic hernia, atresia or stenosis of the small intestine or colon, reduplications of the gastrointestinal tract, rotational

plained abdominal pain after all other methods, including psychiatric checkup, have failed Indications for exploratory operation should be present The patient should have the benefit of the sympathetic pain-ablating operation when no anatomic or pathologic condition which might cause the distress is found [8]

Causalgia.—Shumacker *et al* report a series of 34 upper and 23 lower extremity causalgias treated by sympathectomy [9] This report emphasizes what has been noted by many others, namely, that, while procaine block alone may give permanent relief, there are some cases which, because of decreasing effect of repeated blocks, need a sympathectomy These authors make the following statement

> In all of medical practice no results are more sudden or spectacular Before the injection, the patient would be in agonizing pain, guarding his injured extremity with zealous care, reluctant to have it examined even after painstaking assurance that every effort would be taken to perform the examination in the gentlest manner, hesitant to have the block itself carried out because he felt his capacity to suffer prevented him enduring any more discomfort, even the prick of a needle which he had often heard from other sufferers might lead the way to cure As soon as the injection was completed, his careworn face would assume an expression of extreme satisfaction, the beads of perspiration would disappear, and he would settle back with a sigh of relief to enjoy his respite

It is unfortunate that too often there has been delay in diagnosis, which has, in turn, caused unnecessary suffering, and, too, that the use of physical therapy methods and drugs have been resorted to because of the lack of recognition that ablation of sympathetic nerve impulses is required

Injuries (Sprains) —The classic example of relieving vessel spasm by blocking impulses at the site of a purposely applied irritating substance is often forgotten in cases of sprained ligaments Sprains are accompanied by the pain and edema of vasospasm When a local procaine block is produced at the point of greatest tenderness, the relief of pain allows use of the part, and there is a surprising subsidence of the edema Occasionally, a second or even third block may be necessary at twenty-four-hour intervals No time should be lost in applying this method of eliminating the trigger mechanism

Hypertension.—Best known today is the operation of thoraco-abdominal sympathectomy for essential hypertension Indications for operation are being clarified There is, however, still a lack of unanimity regarding the extent of the thoracic and lumbar portions of the procedure Some surgeons advocate a complete resection of the thoracic ganglionic chain, including the splanchnic nerves, while others favor a more modified technic My own experience has included all suggested approaches from that of Adson, through the Peet, Smithwick, and Hinton technics [10–13] The end results, from the standpoint of symptomatic relief, have been closely similar This is also true of the blood pressure manometric results

Evidence is collecting that widespread resection is not only unnecessary but adds materially to the dangers of the immediate postoperative period and to the sometimes severe postural difficulties of the patient months after the operation And all this is without the added material benefit in the long-term end result

There is further evidence that the blood vessel dilation, which may have led surgeons to extend their attacks to include the entire thoracic chain in some instances, is not the chief reason for relief of symptoms The effect on the humoral factor is receiving more attention [14] A simple life without the urge and mental stress of modern living, as found with the African negro and the agricultural Chinese, does not lead to essential hypertensive disease Set these easygoing brains to worrying by transplanting them to high-speed living and property worries, and, depending on inherent genetic influences of the individual, we begin to see functional results which lead to the formulation of postulates pointing to a humoral factor

Sympathectomy of the adrenals, decreasing the hormonal influence, could be the mechanism which lessens the production of the hormones concerned in the pathogenesis of essential hypertension

Now that end results are pretty well established, it would be well for surgeons to consider backtracking to a point which assures adrenal denervation with a minimum of surgical assault

Apoplexy —The recently proposed stellate ganglion block in cases of cerebral accidents, excluding hemorrhage, will require careful study by internists especially interested in the subject The procedure itself is a simple one, but surgeons are not in a position to evaluate the indications [14]

Summary

A series of brief case reports is presented Epitomized reviews of newer concepts of the advantages of various methods of ablation of

type of anomaly with which he is dealing Multiple atresias usually occur in the ileum, but the atresias occurring in the duodenum and jejunum are frequently single. If the atresia is low enough in the duodenum to permit a jejunoduodenostomy, this is the operation of choice However, if it is in the first portion of the duodenum, a gastroenterostomy must be done. It is difficult at times to handle the distal undistended bowel, which at first sight might even appear to be atretic. The lumen can be distended with air or mineral oil, so that it is defined. It is necessary to aspirate contents and air from the proximal bowel. The anastamosis is readily accomplished by a single or double layer of nonabsorbable suture in a side to side manner The operator should pay close attention to the corner ends of the anastamosis and by placing a small catheter in these corners, they are more readily identified

Reduplications of Intestine

Reduplications of the bowel in a newborn will present the same picture of intestinal obstruction when they are high in the gastrointestinal tract The reduplication is intimately associated with the normal bowel itself The muscular coat may form some of the muscular coat of the normal bowel, and its blood supply is the same. Reduplications of the esophagus can sometimes be resected However, it is probably far safer to destroy them by an actual caustic after opening into the *reduplicated area Reduplications of* the stomach and duodenum are difficult to handle Some communication between the normal stomach or duodenum and the reduplication should be established or a resection accomplished Reduplications of the ileum are easily handled by resection of the normal bowel and the reduplication.

Rotational Anomalies

It is sometimes confusing for a surgeon to open the abdomen of a newborn and be confronted with a picture that seems impossible to unravel This confused picture immediately suggests that the operator is dealing with some type of rotational anomaly Evisceration of the entire small bowel on the abdominal wall will usually indicate the presence of a volvulus There may be nonrotation or malrotation with odd fixations of the parietal and visceral peritoneum. After the volvulus is reduced, the location of the cecum should be determined It usually lies free or is fastened in the midline by bands which extend across the second portion of the duodenum Freeing of this band across the duodenum is one of the most important points of the operation No attempt should be made to suture the cecum into the right lower quadrant.

Anal and Rectal Atresias

For a long period of time atresias of the rectum have been approached surgically When one sees these cases in follow-up, it is obvious that the proper method of treatment has not yet been reached. I do not feel that a concerted effort has been made in every case to determine the location of the distal bowel. It may be in the abdomen. I have seen scarred fibrous tubes without sphincter control that serve as ani Fistulas connecting the bladder, urethra, and, in the female, the uterus or vagina may have been overlooked Fistulas are associated with atretic ani in about 55 per cent of the cases There are several pitfalls to be encountered in the diagnosis of atresia of the anus. A fistula will be present on the external perineal surface and may be assumed to be the normal anal opening Careful inspection will show, however, that such is not the case One must be constantly on the alert for the presence of fistulas running from the rectum to the other organs which empty into the perineal area. I believe that any case which presents an atresia of the anus with a fistula discharging meconium does not present an immediate operative problem These patients decompress themselves and apparently get along for periods of time if the rectum is satisfactorily emptied through the fistula If urinary infection or intestinal obstruction do not develop, these patients are better left alone until they reach an opportune age

The method of x-ray diagnosis as described by Wangensteen and Rice in 1930 has presented the only means we have of knowing exactly where the most distal loop of the rectum lies [1] A metal marker is placed over the anus, the child is suspended by its feet over an x-ray plate, and a roentgenogram taken in that position The column of air will proceed to the furthest point in the rectum, and in that way one can tell how far the rectal bulb is from the anus There is no set rule as to the exact distance, but it is perfectly obvious how needless it would be to explore the perineum if the rectum were out of the pelvis

The anatomic relation of the anus, the rectum, and the pelvis in the infant does not correspond to the adult The sacral concavity is not present, and the rectum is usually straight in the infant In relative sizes, the adult pelvis is much larger than the infant pelvis The perineal approach in a newborn infant is through an area considerably smaller than the corresponding area in the adult, notwithstanding the minute actual area with which the surgeon is presented If he proceeds to grope around in the perineum, after splitting the sphincters, he is definitely bound to interfere with the nerve supply to the sphincter This fact was brought out in a communication by Dr C

anomalies of the small bowel and colon, and congenital atresias of the anus and their accompanying fistulas

Esophageal Atresia

Congenital atresia of the esophagus is brought to mind when an infant immediately regurgitates several feedings This anomaly can be diagnosed quickly by radiography, after inserting a small amount of lipiodol in the upper pouch of the esophagus The presence of air within the abdominal cavity indicates a fistulous connection between the respiratory tract and the distal end of the esophagus This is the most usual type of deformity encountered The operative approach is extrapleural, through the third, fourth, and fifth ribs posteriorly The operator must exercise care in not entering the pleura

The upper end of the atretic esophagus is more readily identified if a small French catheter has been placed in the pouch A silk retention stitch in the pouch will facilitate finding it later on and will also serve as a means of traction The lower end of the esophagus should be freed at its entrance into the trachea and tied off by a silk ligature If it seems improbable that the lower end of the esophagus may not be brought to the upper end, extension of the head and freeing of the lower portion of the esophagus down to the diaphragm may make a juncture of the two portions possible The lower end of the infant esophagus will stand this type of manipulation, although the adult esophagus will not The distal esophagus may be atretic for some distance, rendering anastamosis impossible The approximation of the proximal and distal esophagus should be done without tension and the stoma made as wide as possible The wound is closed after having placed a semirigid tube down to the site of the anastamosis There is an additional collection of fluid around this site, which sometimes impairs the anastomotic juncture It can be aspirated through the tube The question of subsequent gastrostomy as a secondary procedure is left to the operator's judgment Gastrostomy feedings should not be large or under pressure There are no definite reports on the end result of this operative procedure There have been, however, reports of stenoses, some requiring constant dilatation

Diaphragmatic Hernia

Congenital diaphragmatic hernia, although it is not essentially an anomaly of the gastrointestinal tract, is a cause of intestinal obstruction and respiratory embarrassment in the newborn The previous consensus of opinion, particularly among pediatricians, that this disease does not require immediate surgical intervention, is wrong These infants, if they survive to adulthood, have innumerable complaints When they finally come to operation, the procedure is more difficult to do and, sometimes, cannot be done The congenital diaphragmatic hernias usually occur on the left side They may occur on the right, and bowel can be found in the right thoracic cavity The liver does not always plug the defect A roentgenogram will give all the information required

Usually, the first symptoms are difficulty in breathing and rapidly appearing cyanosis, there is also regurgitation of feedings These babies seldom do well after birth and should be operated on immediately The operative procedure is dramatic but not too difficult I believe these cases should have a phrenic nerve crush before operation It immobilizes the diaphragm and permits easier delivery of the abdominal contents from the chest Also, more abdominal space can be obtained at the time of closure The abdominal approach is used A catheter placed in the upper part of the thoracic cavity will equalize the intrathoracic pressure and permit easier removal of the intestinal contents into the abdominal cavity At no time must manipulation be forced If the hernia cannot be reduced, the incision may be extended into the chest through the costal margin, or a separate incision can be made into an intercostal space After the contents are reduced, the closure of the diaphragm permits the re-expansion of the lung under pressure To facilitate closure of the defect in the diaphragm, the intestines should be brought out on the abdominal wall It may be impossible to close the abdominal wall in layers, the cavity being too small to contain the viscera Undermining the skin of the abdominal wall for a distance of 2 or 3 cm around the incision and simply closing it over the abdominal contents will suffice In three or four days, the wall will relax sufficiently to close the wound in layers

Atresia or Stenosis of Intestine

Atresias or stenoses of the duodenum, jejunum, ileum, and large bowel present difficulties in diagnosis Vomiting which persists in a newborn infant usually indicates some type of intestinal obstruction Frequent vomiting will empty the stomach, duodenum, and jejunum, and when the child is seen, there will be no upper abdominal distension The x-ray film may show only a small amount of air present in this part of the bowel Feed the child to see exactly what happens Atresias may be multiple or single In performing any abdominal surgery on these infants, it is best to eviscerate the abdominal contents on a hot lap pad at the time of operation Thus, the operator is able to appraise rapidly the

PLANNING FOR THE CHRONICALLY ILL—A COOPERATIVE TASK

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UNTIL the star-studded team of community service plans and works together and uses effectively the best available offense and defense, chronic illness will continue to outscore it

Community service has top-flight coaches They include the American Medical Association, the American Public Health Association, the American Hospital Association, and the American Public Welfare Association Only recently, that all-American staff, capitalizing on accumulated experience, prepared a joint statement of recommendations on planning for the care of the chronically ill [1] In that report the social, economic, health, and medical aspects of chronic illness are dealt with as "a complex of interrelated problems which require simultaneous solution"

The players opposing long-term illness include health, welfare, and education departments, legislators, voluntary health agencies, hospitals, medical societies, medical schools, nursing schools and organizations, social agencies, rehabilitation services, and nursing homes They are gaining confidence, as teamwork and plays improve, in their ability to prevent or lessen the scoring opportunities of chronic illness

Medicine today is as much a social as it is a biologic science Increasingly it must organize itself to participate in community efforts in the development of sound, preventive health and medical services for all the people Planning involves an estimate of the medical-social problems of at least the next generation. An essential inclusion is an exploration of the frontiers of knowledge in an effort to solve the mysteries of diseases, particularly those that take the largest toll in disability and death, and to provide sound methods for the diagnosis, treatment, and prevention of physical and mental illness and for the development of a healthy population. The coach, Organized Medicine, recognizes the need for a nation-wide, integrated research program and for that reason supports the principle of a Federal bill which proposes the establishment of a National Science Foundation The longest gains result when several players coordinate their ball handling

Montefiore Hospital in New York City has a complete home-care plan which illustrates the power of team members when they pass the ball effectively to one another to help the patient and his family score against long-term illness Serving the total needs of the advanced cancer case are the hospital, hospital staff physicians and specialists, social service, public health nursing, visiting housekeeper service, employment service (New York State), and voluntary health agency (American Cancer Society) Dr Martin Cherkasky, supervisor of this program, says, in effect, that it proves that advanced cancer patients living at home can receive adequate hospital, medical, and nursing care, at lower cost than otherwise Another gain is especially important—that program frees hospital beds for new patients

Chronic illness piles up a bigger score than it should because community service does not use winning plays often enough and seldom uses them in combination The players agree that the preventive approach offers the greatest hope of defeating chronic illness Coach Organized Medicine recognizes the need for—in fact, recommends—nation-wide coverage with full-time local health units Yet, today, only twelve of the 57 varieties of counties in upstate New York provide their citizenry with the community health protection services which develop under the leadership of a full-time department of health

At every opportunity, authorities, such as Dr Howard A. Rusk, stress the fact that the experiences of both the Veterans Administration and some civilian hospitals show that rehabilitation to the point of self-care, and even to full or limited employment, is possible for many of the chronically ill who have been hospitalized (or given custodial care elsewhere) over long periods Yet, patients in most civilian hospitals receive none or too little such service [2] Rehabilitation and convalescent care aspects of medical-social service and educational responsibility obviously are not entirely medical in character They represent an ideal area of cooperation between medicine, social service, vocational training and guidance, industry, and the public

The employment records of handicapped and older workers during World War II show that they were loyal, reliable, and, when properly placed, as productive as younger persons doing the same work. The viewpoint that older workers can learn to do well jobs which they can get is gaining support The New York State Legislative Committee on Problems of the Aged reminds industry and business that employment is a form of therapy, and that full utilization of older work-

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Everett Koop of the Children's Hospital in Philadelphia [2] Dr Koop feels that prolonged perineal exploration endangers the nerve and blood supply to the sphincters It is more advisable to operate on those babies with the rectum out of the perineal area by a combined abdominal and perineal approach Babies do not do well with colostomies, and it is far better to do the initial procedure all at one time

Whatever part of the bowel presents, whether the distal end of it be in the region of the transverse colon or the descending colon, it can generally be freed to the point where it can be brought down to the pelvic floor and pulled through the perineum The external sphincter can be located externally by tickling the buttocks on either side The sphincter, usually present, will be seen to contract under the skin. Without making any incisions through the sphincter whatsoever, a hemostat can be pushed through the sphincter into the pelvic opening After the bowel has been freed, by using the hemostatic clamp, it can be pulled down and brought to the outside through the normal external sphincter The bowel is then sutured to the outside skin and opened Mechanical dilatation after many of these procedures is usual This is a definite improvement over previous transperineal attacks that have been unsuccessful, leaving the infant with a colostomy and destroyed sphincters If a fistula is encountered, the rectum must be brought down through the sphincter to a point beyond the fistula and excised

Preoperative Preparation

The preoperative preparation of these babies is not complicated Infants are endowed with a normal physiologic setup which they can maintain for forty-eight hours It is always well to know the plasma and the red cell concentration or dilution This is determined by estimating the total protein level and hematocrit readings In desperately ill babies, these readings help to determine at which period they are in physiologic balance and ready for operation Dr Edward Donovan in 1937 pointed out the need for careful preoperative preparation of babies for pyloromyotomy [3] Previously, that procedure had been considered an emergency I believe that infants that are not brought into the hospital within the first forty-eight hours do much better if they are given a certain period of preparation, even though they are in desperate condition when they arrive They can be made good surgical risks

The intravenous work is done by the pediatric house staff, who find it very easy to shave the scalp and inject one of the small scalp veins by needling In preparing the newborn for any extensive surgical procedure, it is better to insert a cannula into the malleolar vein in either foot The surgeon then has constant access to the infant's venous system during the surgical procedure This also permits the baby to be left in an incubator without being moved around or unduly handled To prevent regurgitation of any substance in the stomach into the bronchial tree, a small catheter is always placed in the stomach and aspirated repeatedly during the operative procedure It also aids in deflating the stomach, if one is trying to place the viscera back into the abdomen

To prevent loss of body heat, the extremities should be wrapped in wadding, and small warm bottles of water placed in the axilla and along the flanks and thighs The infant is placed on a porcelain tray, such as can be found in any operating room, under which is placed a hot water bottle

Anesthesia

The problem of anesthesia in the newborn is concerned with the margin of safety Even using open drop ether, which is probably the safest method, the infant is constantly in danger of a lethal dose There is a difference of opinion as to the most satisfactory type of anesthesia In my experience, open drop ether is the best When intrathoracic procedures are done, tight-fitting masks with a simple resuscitating outfit are used during the period of expansion of lung The expansion is carried out by gentle squeezing of the bag in the closed circuit

Postoperative Care

Postoperatively, these babies should be placed in an incubator with an atmosphere of 90 per cent oxygen The less they are handled, the better they fare The question of feeding in gastrointestinal cases is most important I do not believe these infants should be fed for the first seventy-two hours after anastamotic intestinal work has been done

Summary

1 A general introduction to the problem of gastrointestinal anomalies in the newborn has been presented

2 The management of the more common anomalies has been discussed in detail

3 The importance of early diagnosis and the need for surgical intervention and careful pre- and postoperative care has been stressed

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factor in the placement of patients in "care" facilities is the availability of a bed anywhere Under an affiliation plan, welfare departments secure admission of public recipients to a hospital, or to its outpatient department The medical staffs of the hospital and the welfare department determine the total medical-social problems of the patient, and outline a program based on those needs, then the welfare department recommends the placement of the patient accordingly Periodically, the medical staff of the hospital and welfare caseworkers re-examine these persons in order to keep the regimen and placement in line with their changing conditions Whenever an individual in a nursing home requires diagnostic and specialist services, full use is made of total available community resources This arrangement makes possible optimal services to the patient at the lowest possible cost The medical staff of the hospital having affiliation with a nursing home functions in that nursing home exactly as it does in the hospital situation. Private patients can have these same advantages

This arrangement is advantageous to the nursing home for the following reasons (1) it facilitates a two-way flow of patients between the hospital and nursing home, (2) it identifies such homes as being an integral part of the general medical care program of the community, (3) it provides a means for the training of attendant and nursing personnel of such homes, thus assuring the operators of an adequate supply and competent personnel, and (4) it improves the quality of the preventive, medical, and health services in such homes

Since nursing homes are medical care facilities, the important consideration is the quality of the medical, preventive, and health services rather than the facility itself

The majority of licensure laws now in effect do not set minimum standards for medical services in nursing homes One exception, which merits study, is Ordinance No 2467 of the City of Fort Worth, Texas

Experience points to the need for covering all types of medical care facilities by licensure laws New York State does not have such legislation In 1946, eight states had such legislation In all of them, the health department is the licensing agency [6] Exemption of any "care" facility from requirement of licensure by the health department is not in the public interest Legislation governing "care" homes commonly exempts those that are publicly operated This practice is unsound The facts do not generally support the implied assumption that public facilities do not need supervision because they are already making an effective and necessary contribution to the total medical care program of the community

Boarding homes for older persons and homes caring for less than three sick or infirm persons seldom have to meet the requirements of such legislation Such exclusions from licensure increase the number of illegally operating nursing homes This observation is true for Nassau County, New York, where the ordinance does not cover, specifically, boarding homes for older persons There, unless the evidence is that three or more sick or infirm persons are given care for a consideration in a private home, the ordinance does not apply Medical health officers face practical difficulties in determining whether or not older persons in such homes are infirm Since such individuals seldom have preadmission and periodic medical examinations, the health official can form an opinion only on the basis of what is obvious on inspection These limitations decrease the likelihood of successful prosecution of those whom the licensing agency charges with violation of the nursing home article of the public health ordinance In Nassau County today, the number (not the capacity) of known so-called "boarding" homes for older persons and homes offering care to less than three patients exceeds that of licensed nursing homes There, health officials frequently find that the "boarding home" is, in fact, an unlicensed, second-rate nursing home

Amendment of the ordinance, in accordance with the principles given previously, offers the greatest promise of resolving these administrative problems

The following discussion shows the practical application of these principles of licensure A person files an application for a license to operate a "care" home The health department determines both the adaptability of the physical plant to such use and the fitness of the applicant to operate such a facility After completing an investigation, the health department either denies the application or issues a "care" home license for a probationary period, if, from the evidence at hand, it appears highly probable that both the plant and the operator can, within a year, meet or exceed the minimum standards either of a supervised boarding home for older persons or of a licensed nursing home A statement accompanies this license. This tells the operator exactly what he must do in accordance with a time schedule, if he is to qualify for a license to operate either a supervised boarding home for older persons or a licensed nursing home If, at any time during the probationary period, the operator fails to meet the conditions of the license to operate a "care" home, the department gives notice and later revokes that license and, if necessary, files an information During the probationary period, the department gives a great deal of educational

ers is essential in order to maintain the present standard of living (and health) in this nation

The essentials for home care of the chronically ill are a general medical-care program with care of the chronically ill inseparable from it, ready access to diagnostic and specialist service, bedside and other public health nursing services, housekeeper service, improved housing, supervised boarding homes, medical-social service, recreational and occupational therapy, vocational rehabilitation, and social security measures [1]

The author has described elsewhere the responsibility of a licensing agency for carrying on an intensive educational program in order to improve the care given in individual nursing homes [2] The discussion which follows deals primarily with the principles of licensure of "care" facilities

Widespread support is developing for several basic concepts regarding care for chronically ill persons who cannot or should not remain at home, and who do not require hospitalization The total needs of long-term patients can be met only if homes for the aged, boarding, convalescent and nursing homes are available to them Both tax-supported and privately owned facilities of these types are now generally insufficient to meet the demands for care outside the home and hospital Some communities are now operating public nursing homes Many other cities and counties are planning such facilities Those planners should consider the effect of an aging population on the need for nursing home care Barring wars, life expectancy is certain to lengthen appreciably in the future This means that persons forty-five years of age and over will comprise an increasingly larger proportion of the total population. The prevalence of chronic disease becomes greater as a population ages

To make an effective and necessary contribution to the general medical care program of a community, all types of "between the home and hospital" facilities should meet minimum standards, be regularly inspected, serve the total needs of the persons in them, and conserve the financial resources of patrons by basing charges on services actually required at a given time

The Public Health Ordinance of Nassau County, New York, provides for the licensure of nursing homes That ordinance became effective October 1, 1941 The provisions are essentially the same as those adopted previously by New York City That ordinance falls short of being a model So do most others having the same purpose Whoever attempts to improve such ordinances should keep several general considerations in mind

First, all types of facilities caring for the sick, infirm, handicapped, and aged, for a consideration, should be subject to inspection and supervision by the health department Second, provision for probationary licensure of "care" homes is an essential inclusion in a licensure law The health authorities in Nassau County, New York, agree with Potter and others that this is an effective method of raising standards [4] The public, operators, and licensing agency benefit from this procedure This device reduces the number of illegal operators, makes more facilities available, enables the licensing agency to make education rather than enforcement the keynote of supervision, and helps to establish the important relationship between cost of care and quality of services

Third, it is unrealistic and uneconomic to make the minimal standards, including fire and safety requirements, identical for supervised boarding homes for older persons and for nursing homes. The condition of the patients in them is the best criterion for regulations The ordinance should make it a violation for an operator of a boarding home for older persons to accept or to keep any person who is unable to get about without help or who has a demonstrable physical or mental disease, disability, or infirmity which, in medical opinion, constitutes an indication for attendant or nursing service The ordinance should make it a violation for an operator of a nursing home to accept or to keep any person who, in medical opinion, requires hospitalization These requirements take into account the fact that the condition of patients changes with time

Fourth, all nursing homes require medical services affiliated with the staff or a secondary hospital center [5] Additional benefits accrue to patients and facilities when both hospital and nursing homes have affiliations with supervised boarding homes for older persons The advantages of affiliations between all types of "care" facilities show up best when one compares the total services now generally given with those available under that plan An affiliation of a nursing home with a hospital makes possible the development of a smoothly operating mechanism for referral of patients from one facility to another This two-way movement of patients between facilities helps to assure the chronically ill of services geared to need, is an essential step in freeing hospital beds now occupied by long-term patients who do not require hospitalization, and saves money

Another advantage of affiliation is the opportunity which it affords for training all types of personnel giving care to chronically ill persons If the community has a specialized chronic disease hospital, that institution has the major responsibility for organizing and conducting such a training program

Under existing circumstances, the determining

RAMSAY HUNT'S SYNDROME

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RAMSAY Hunt's syndrome is interesting and rare enough to justify the presentation of a single case I should like to alter the usual routine by presenting the history and physical findings first, followed by a brief historic review with a discussion of the anatomy and physiology involved, and, finally, a summary

Case Report

S M., a white man, aged fifty, was seen for the first time on March 19, 1948 He complained of severe pain, of one week duration, situated in and behind the right ear Two days after the pain had begun, blisters appeared on the ear, and right-sided facial paralysis occurred on the morning of March 18 He had been treated with diathermy for two days previous to the palsy, by the referring physician There was no vertigo or obvious disturbance in hearing sensation. His mouth felt dry

Examination revealed a complete right facial paralysis with Bell's phenomenon—on attempting to close the eyes the right eyeball turned upward and outward (Fig. 1) He was unable to wrinkle the right side of his forehead, to whistle, or to smile convincingly Epiphora was not present Absence of the sense of taste at the anterior two thirds of the tongue on the right with normal taste sensation on the left was observed the following day Muscle movements of tongue and soft palate were normal

The left ear canal and drum showed nothing abnormal. The right auricle was moderately swollen and injected. There were numerous discrete vesicles and some dry scales at the concha (Fig 2) Tuning forks of the higher frequencies were distinctly irritating to the right ear

The patient improved rapidly under simple infrared and vitamin B complex therapy X-rays or electric current stimulation was not employed A bland ointment was prescribed for the eruption, and facial massage was carried out by the patient at home The cutaneous lesions disappeared within two weeks. After another two weeks taste sensation returned and facial movements became normal, in that order He never complained of any intranasal disease nor was any found. An interesting incidental finding of herpes simplex of the left corner of the mouth was noted three days after the palsy became established (Fig 1)

It was in 1906 that Ramsay Hunt first pointed to the geniculate ganglion of the seventh cranial nerve as the site of the pathology in the syndrome that now bears his name [1] The disease designates the occurrence of herpes zoster at the auricle, usually associated with neurologic signs of the facial and also frequently of the acoustic nerves Recently, Tschiassny has found reason to disagree with some of Hunt's theories [2]

Anatomy of Facial Nerve

In order to determine the site of the facial nerve lesion it is necessary to understand thoroughly its anatomy The seventh nerve is

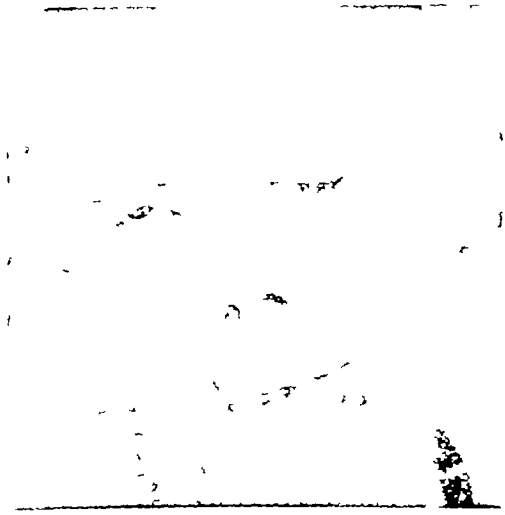


FIG 1 Complete right-sided facial paralysis with Bell's phenomenon Note lesions of herpes simplex at left corner of mouth.



FIG 2. Illustration showing dry scales at the concha

assistance to the operator If, prior to, or at the end of that period, the facility meets the minimum standards either of a supervised boarding-home for older persons or of a licensed nursing home, the department issues a license accordingly

Conclusion

The simultaneous solution of the complex and interrelated problems of chronic illness necessarily requires a cooperative program of the people in their own communities Since medicine is primarily responsible for adding years to life, an important cause of a changing social order, it cannot escape the responsibilities for helping to resolve the medical-social problems of an aging population. There are abundant signs that medicine is now frequently playing the center position on the many community service teams throughout the nation, and that it is passing the ball from one player to another in order to help the patient and his family outscore chronic illness

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TROUBLES MOUNT IN ENGLAND UNDER NATIONAL HEALTH ACT

Since the National Health Service Act has been in effect in England, doctors' offices are overcrowded by persons, "many of whom have little or nothing the matter, seeking medical advice," says the London correspondent of the *J A M A*

"What may happen if we have a winter epidemic of some kind is a nightmare for the physician," his foreign letter says, adding

"The demands for drugs and apparatus is excessive For the first three months of the service the national bill for eye testing and spectacles amounted to nearly $4,000,000, for drugs $7,600,000 and for dentists, including dentures, $4,900,000 These figures do not include the cost of treatment and appliances provided through the hospitals

"An abuse of the Health Service has occurred, the extent of which cannot be stated because of the secrecy of the practice A woman obtains a prescription from a doctor for which she has little if any need. Perhaps she shams illness. She takes the prescription to a pharmacist and trades the prescription for cosmetics or other things which he sells. The pharmacist has no difficulty in getting payment for the prescription, as he returns it with those that he has dispensed Both score over this fraud. The woman obtains her cosmetics for nothing and the pharmacist probably makes an increased profit on this sale of cosmetics"

The article says that the medical profession does not reap any reasonable benefits from the act "because of the enormous waste involved—waste of time and material." "A crowning bit of extravagance may be mentioned," the article continues. "Foreigners who come to this country are to be entitled to free medical attention at the public expense for the first two months."

"DOCTOR JONES" SAYS—

Just for a change, supposing we talk about a war, but, this time, one with some cheering aspects The war against tuberculosis has been going on, in this country, for sixty-odd years and, now, success is practically in sight. Tuberculosis was a scourge long before that, but it wasn't 'til Dr Koch discovered the tubercle bacillus, in 1882, that they knew what caused it and really started fighting Now we've reached the point where, if we can throw in enough reinforcements to take the final ramparts, the war'll be won. Then all we'll have to do will be to guard the peace.

About eight years after Dr Koch discovered the germ he came out with tuberculin. It began to be used for testing cattle to find out if they were infected—and, later on, children. Around 1897 the New York City Board of Health began requiring the reporting of cases the first in the country, apparently, to do it. Laboratories began looking for the germs in specimens from patients. Incidentally, the educational work started then, on prevention of the disease, was the real beginning of systematic public health education.

In 1900, when I began getting interested, tuberculosis was the leading cause of death (The last time I checked up it was number 7 on the list) A large part of the market milk that wasn't pasteurized had live tubercle bacilli in it It was estimated that 70 per cent of the people over fifteen years old has been infected to some degree If the disease didn't get 'em the infection probably left 'em with some immunity Between that and the work that's been done the death rate has been coming down steadily until—well, you know where it is today

We've had enough experience with military matters, these late years, to know that a battle almost won can be lost by a slow-down In our war with tuberculosis now's the time to give it everything we've got.

As Joe Louis might say "When they're on the ropes turn on the heavy stuff"—*Paul B Brooks, M.D., December 20, 1948*

THEPHORIN. A NEW HISTAMINE ANTAGONIST IN THE SYMPTOMATIC TREATMENT OF ALLERGY

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IN RECENT years various histamine antagonists have been widely used in various allergic disorders with remarkable results In 1910, Dale and Laidlaw advanced the histamine theory in anaphylactic shock and in allergic conditions [1] The fundamental observations of Lewis revealed that the physiologic response in anaphylactic shock and in allergic reactions is due to the union of antigen and antibody in the shock tissues, with the resulting liberation of an "H" or histamine-like substance [2]

Code, in his discussion of the action of histamine, stated that the effect upon smooth muscle is one of contraction, as seen in the bronchi for example, and the effect upon the capillaries is one of dilation and increased permeability, as demonstrated on the skin and mucous membrane [3] Code further suggests that there is another factor, not histamine, which is fundamental in anaphylaxis and allergic reactions, and he stresses that the sensitized cell damage is the factor responsible, with incidental release of histamine as a result of this cell damage

To discard the importance of histamine, even though secondary in the production of many allergic reactions, is illogical at this time There is evidence that the release of histamine is responsible in many allergic reactions As a result, many investigators began to search for a drug which would effectively displace or replace histamine at the cell receptors The French were the first to develop histamine antagonists Antergan (N'-phenyl-N'-benzyl-N-dimethyl ethylenediamine) was the first drug to be used Others soon followed These early histamine antagonists were found to be too toxic in the human being, although effective in animals A great number of drugs of the ethylenediamine type of chemical structure with various side-chain modifications soon made their appearance Clinical reports began to appear in 1945 and 1946, affording a great number an opportunity to try them, with various results

Feinberg summarized the subject of histamine antagonists by stating that a cure is not to be anticipated as a result of the use of these drugs, they are palliative only and in many manifestations of allergy will not be effective while other cases will be helped by the additional employment of these palliative measures [4] In other words, these histamine antagonists have not supplanted specific desensitization therapy, and, while they do not relieve all allergic symptoms, they do give a great deal of relief in a great number of patients

In 1947 a new histamine antagonist was introduced, characterized chemically by a structure totally different from those of the other drugs previously reported This drug is known as Thephorin (2-methyl-9-phenyl-2,3,4,9-tetrahydro-1-pyridindene hydrogen tartrate)

We have used Thephorin in 141 cases of various allergic conditions * This group comprised the following hay fever 60 cases, vasomotor rhinitis 55 cases, bronchial asthma 20 cases, chronic urticaria four cases, vernal catarrh one case, and contact dermatitis one case The dosage employed was 25 mg given orally three to four times daily As the symptoms improved, the dose was reduced to 25 mg once daily, to be given when necessary In the table that follows it is to be noted that unless the patient obtained 50 per cent relief of symptoms following a reasonable trial of Thephorin the result was charted as "no relief"

TABLE 1.—RESULTS OF TREATMENT OF PATIENTS WITH THEPHORIN (NU 1504)

Allergic Condition	Number of Cases	Relief	No Relief	Per Cent Relieved
Hay fever	60	46	14	76 7
Vasomotor rhinitis	55	33	22	60 0
Bronchial asthma	20	3	17	15 0
Chronic urticaria	4	3	1	75 0
Vernal catarrh	1	0	1	0 0
Contact dermatitis	1	1	0	100 0
Totals	141	86	55	61 0

Discussion of each case is not feasible The best results were obtained in hay fever, vasomotor rhinitis, and urticaria

Of 95 cases treated with Thephorin, twelve, or 12 6 per cent, complained of side-reactions No reactions encountered were severe enough in any case to cause the discontinuance of the drug

TABLE 2.—SIDE-REACTIONS IN 12 OF 95 CASES TREATED WITH THEPHORIN

Side-reaction	Number of Cases
Drowsiness	7
Dryness of mouth	3
Headache	2
Indigestion	2
Tiredness	2
Dizziness	1
Palpitations	1
Bitter taste	1

* Thephorin was furnished through the courtesy of Hoffmann La Roche ,Inc

comprised of four differently functioning elements Two are afferent (sensory and gustatory), and two efferent (motor and secretory)

Sensory Element —Here we are primarily interested in that portion concerned in the syndrome Ramsay Hunt's "geniculate zone" includes the concha, tragus, antitragus, fossa, part of the helix, antihelix, and a small portion of the lobule The fibers are conducted to their destination mainly with Arnold's nerve and partly with the auriculotemporal and the posterior auricular nerves

Gustatory Element —Briefly, taste fibers leave the geniculate ganglion and are distributed to the anterior two thirds of the tongue through the chorda tympani nerve

Motor Element —The levator palati and the uvulae muscles are supplied by the palatine nerves via the greater superficial petrosal nerve after the latter passes through the sphenopalatine ganglion The exact nerve supply of the palate remains unsettled The stapedius nerve leaves the main trunk in the middle ear and innervates the smallest striated muscle in the body The footplate of the stapes is drawn out of the oval window by the contraction of this muscle, the stapedius This reflex occurs during loud noises and is, therefore, a protection for the inner ear Contraction of the stapedius muscle decreases hearing acuity, conversely, paralysis of the muscle causes an increase in hearing sensation Up to the present this phenomenon has been called hyperacousis, but Tschiassny prefers the term "phonophobia" since there really is no increased acuity of the hearing organ but rather an increased sensitivity

Secretory Element —Postganglionic fibers leaving their respective ganglia find their way to the lacrimal gland (sphenopalatine), the mucous glands of the nose and palate (sphenopalative), the parotid gland (geniculate and otic), and the submaxillary glands (submaxillary)

In order to facilitate the location of the lesion the facial nerve is further divided into the following

Infrachordal Portion —That portion of the seventh nerve below the chorda tympani Involvement here would result primarily in facial paralysis alone If the disease is extracranial, the posterior auricular nerve escapes Thus, slight movement of the auricle is possible Sensation at the geniculate zone is not affected

Suprachordal Portion —That portion of the seventh nerve above the chorda tympani The small stapedius nerve leaves the main trunk between the chorda tympani and the geniculate ganglion Hence, the suprachordal portion can be further subdivided into an infrastapedial and a suprastapedial portion Involvement above the chorda tympani and below the stapedial nerve (suprachordal-infrastapedial) would show facial palsy plus loss of taste sensation at the anterior two thirds of the tongue on that side There would also be a decrease in the salivary flow However, a lesion situated above the stapedius nerve and below the geniculate ganglion would cause a paralysis of the stapedius muscle The patient would then lose the protection of the loud noise reflex, thus making strong auditory stimuli irritating to the ear, i e , the appearance of phonophobia It has been shown that by forcibly closing the eyes most people will experience a blowing noise in both ears This is thought to be due to an oculostapedial reflex causing contraction of the stapedius muscle and, consequently, with drawal of the footplate from the oval window A negative test means nothing unless it was positive previously This test would necessarily be negative with a lesion above the stapedius nerve

Geniculate Portion —That portion of the seventh nerve at the geniculate ganglion Signs of involvement here are as above with the addition of hypolacrimation, possible deviation of the palate and uvula to the good side, and more dryness of the mouth

Supragenículate Portion —That portion of the seventh nerve above the geniculate ganglion The signs are as above with the noted exception that the sense of taste at the anterior two thirds of the tongue returns The reason for this apparent discrepancy is that taste fibers pass off in the greater superficial petrosal nerve which leaves the ganglion, and these fibers escape the lesion

Comment

In the patient presented, the lesion would be located at the geniculate ganglion Clinically, he demonstrated the facial palsy, the loss of taste at the anterior two thirds of the tongue, the phonophobia, and the diminished salivation Because of these findings and especially because of the vesicles situated at the "geniculate zone," this case can be designated as a true example of Ramsay Hunt's syndrome as originally described

Summary

1 A case of Ramsay Hunt's syndrome is presented

2 The anatomy and physiology of the facial nerve are briefly reviewed

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2 Tschiassny K. Ann. Otol. Rhin. & Laryng. 55 152 (Mar.) 1946

I am indebted to Sister M Vincentia of the Mercy Hospital Buffalo for taking the photographs

THE TREATMENT OF PNEUMONIA WITH PENICILLIN

Comparison of Penicillin in Water-in-Oil Emulsion and Penicillin in Water Solution*

HAROLD H COPPERSMITH, M D , WOODBURY PERKINS, M D , JAMES LELAND, M D , DICKINSON W RICHARDS, JR , M D , and K JEFFERSON THOMSON, M.D , New York City

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As yet, there is little in the literature on penicillin in water solution given at twelve-hour intervals Young has described three patients treated with 250,000 units of penicillin every twelve hours, and 17 patients treated every eight hours.[1] One of the three responded satisfactorily, two gave a delayed response, requiring four to seven days. Tompsett, in a discussion of the treatment of pneumonia, mentioned 26 cases, treated with 300,000 units every twelve hours until the temperature fell, then 300,000 units once a day thereafter [2] The results were identical with those of other treatment regimens

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For the aqueous penicillin series, 1,000,000 units of similar penicillin were dissolved in 6 cc of sterile distilled water Two cubic centimeters of this preparation, which contained approximately 300,000 units of penicillin, were used for the intramuscular injection

The injections of both Pendil penicillin and aqueous penicillin were given at twelve-hour intervals in alternate buttocks

The bacteriologic studies consisted of sputum typing and culture on blood agar plates if immediate typing could not be obtained, blood culture with typing of pneumococci if growth occurred within nineteen days, and similar culture and typing of pleural fluid when obtained Sputum typing and blood culture were taken as a routine on establishing the diagnosis and before therapy was given Penicillin assays were done by the method of Hobby [4]

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The patients in this study were consecutive admissions in whom the diagnosis of pneumonia was based on the usual clinical and laboratory criteria, including an immediate fluoroscopy and subsequent roentgenograms of the chest No patient was included in the series who had received a chemotherapeutic or antibiotic agent prior to admission (or transfer) to the service Patients were not excluded from the series because of the presence of another illness in conjunction with pneumonia Diagnostic procedures such as white blood cell count, fluoroscopy or roentgenogram of the chest, and the collection of sputum and blood for pneumococcus typing and culture were done before the first administration of penicillin. Three hundred thousand units of penicillin were then given every twelve hours The serum levels of penicillin, as measured in a

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2 A group of 141 patients with various forms of allergy were treated with Thephorin

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He reviewed many of the health bills passed by the 80th Congress and then discussed Federal Security Administrator Oscar Ewing's report to the President, entitled "The Nation's Health," which Dr Fishbein says "comes far indeed from being anything resembling a scientific document."

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"In England, following the adoption of the National Health Act which promised everyone in England free medical service and free hospitals, free eyeglasses and free teeth, as well as everything else free in the field of medicine, the service has been marked by utter inability of the doctors, the hospitals, the pharmacists or the dentists to meet the demands placed on them by a great rush of people who wanted perhaps simply to find out how the system works

"My observations in England led me to the opinion that the quality of medical service rendered under the National Health Act would never be satisfactory to the average American laborer or farmer

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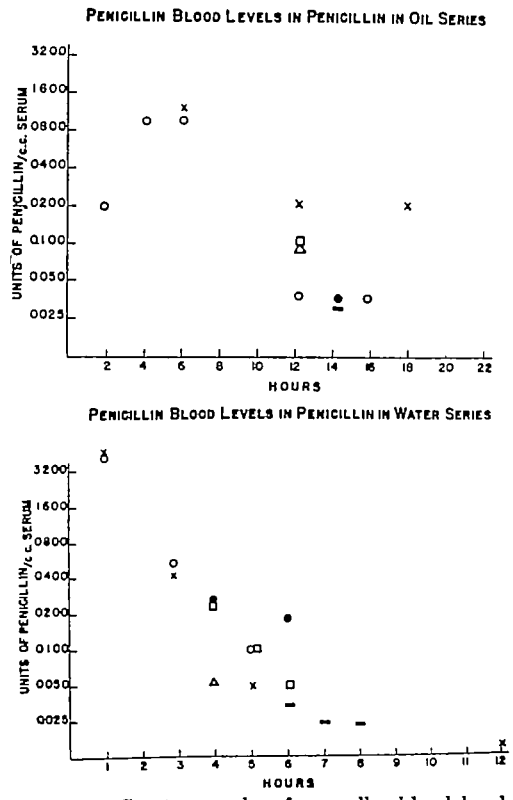


FIG 1 Scatter graphs of penicillin blood levels in six patients after a single intramuscular injection of 300,000 units of penicillin-in-oil (top) and in six patients after a single intramuscular injection of 300,000 units of aqueous penicillin (bottom)

small number of these patients, are tabulated in Fig 1

The patients in the two series were essentially unselected The exceptions were as follows patients admitted primarily with cardiac failure who later developed pneumonia were not accepted for study, one patient with pneumonia due to Klebsiella pneumoniae was excluded because it was considered advisable to give streptomycin as well as penicillin, and one patient was excluded who had bronchiectasis, later demonstrated by bronchoscopy, and frankly suppurative pneumonia

No attempt was made to differentiate bacterial bronchopneumonia from lobar pneumonia There were no recognized cases of primary atypical pneumonia, although the possible existence of this disease in some cases in which pneumococci were not cultured from the sputum could not be excluded The majority of patients had lobar distribution of their disease with one or more lobes involved Bacteriologic identification of the causative organism was accomplished in the minority of cases However, as the season progressed, the percentage of typed cases increased

The first group was treated during February, March, and early April, 1947, and comprised 48 cases These received 300,000 units of aqueous solution of penicillin emulsified with Pendil This group is hereafter referred to as the oil series The second group treated from mid-April through June, 1947, comprised 31 cases who received 300,000 units of aqueous penicillin alone This group is hereafter referred to as the water series The onset of illness was dated from the advent of shaking chill, pleuritic pain, known fever, or hemoptysis and is, in many cases, an approximation

Results

Certain arbitrary criteria for evaluation of therapy have been established A rapid recovery is defined as a case that became afebrile within five days and had an essentially clear roentgenogram of the chest within three weeks Fever was considered a rectal temperature of 100° F or above An "essentially clear" chest roentgenogram includes those with slight haziness of the pleura or increased hilar markings extending into the affected area, still present at discharge Such patients were considered to have recovered Three patients who recovered promptly from their acute pneumonia had a persistence of parenchymal shadows by roentgenogram and subsequently developed sputa positive for m. tuberculosis These are considered cases of rapid recovery from an acute pneumonia superimposed on a tuberculous infection

Slow recovery was considered to have existed in those instances where fever persisted over five days, but in which there was otherwise a favorable and uncomplicated course

The complications of pneumonia encountered were delayed resolution and empyema The criterion of delayed resolution was a homogeneous parenchymal density by chest roentgenogram persisting after three weeks A diagnosis of empyema was made in two cases with grossly purulent fluid, although this fluid was sterile by culture

Oil Series—There were no deaths Forty-six of the 48 patients recovered without complications In general, the fever declined promptly, the average febrile period lasting three and two-tenths days after the commencement of therapy There were six patients classified as slow recoveries, five of whom had a slow initial temperature response with fever persisting past five days and one patient who had a febrile relapse the ninth day with the development of pneumonia in the other lung In this latter instance there was a satisfactory response to a second course of penicillin. This was the only occasion in which a second course of penicillin was administered

In other respects these six patients made uneventful recoveries There was one additional patient with successful recovery whose pneumonia responded satisfactorily but who had a persistent fever in conjunction with chronic pyelonephritis The only two cases in which complications developed showed delayed resolution in both. These two patients made eventual recoveries

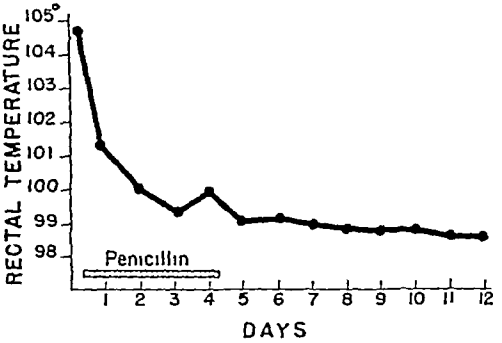


FIG 2 Temperature response of a fifty-five-year-old white man with pneumococcus, type II, in sputum and blood who received 300,000 units of *penicillin-in-water twice daily* Total *penicillin* dosage was 2,700,000 units Partial consolidation of left lower lobe was clear by x-ray within three weeks.

Water Series —Of the 31 patients treated there were two deaths One died of pneumonia seven hours after admission during which time he received one injection of penicillin The other fatal case was an elderly man with diffuse metastatic carcinoma who developed pneumonia while on the ward He died on the twelfth day after penicillin was started Of the remaining 29 surviving patients, 23 made uncomplicated recoveries (for example, see Fig 2) In this group are included two patients with slow temperature response with fever persisting seven and ten days and one patient whose persistent low-grade fever was attributed to a proved underlying tuberculosis One of these three patients had a sterile transudate in the pleural space on the same side as the pneumonia

Six of the 29 surviving patients developed complications Four of these had delayed resolution,* and there were two cases of empyema One patient with delayed resolution had a persistent patch of density by roentgenogram at six weeks, although afebrile and asymptomatic after the fifth day Further study including bronchoscopy and bronchogram failed to reveal the nature of the pathology Both of the empyema patients were chronic alcoholics with hemoglobin values below 10 Gm. per cent One was actively bleeding from the gastrointestinal tract, and the other was a repeated blood donor who had been ill ten days prior to admission Neither patient required surgical intervention The four cases of delayed resolution occurred in blood-donating chronic alcoholics with anemia Ultimately, these six cases with complications all recovered without additional treatment

Other than anemia and chronic alcoholism, the presence of one or more additional diseases or conditions (including pregnancy) in conjunction with pneumonia did not seem to influence the outcome of the pneumonia In the water series a total of 12 other types of disorder were present in 26 of the 31 patients A comparison of the results in the two series is shown in Table 1

Discussion

In this report patients in the oil series and water series are comparable with respect to age, sex, duration of illness prior to admission, and extent and severity of the disease The bacteriologically proved cases were more numerous in the water than in the oil series (Table 2) Both groups of patients received approximately the same amount of penicillin, an average of about 3,000,000 units which constituted five days of treatment Penicillin was continued until the patient had been afebrile for forty-eight hours There were a few more complications encountered in the water than in the oil series, but it seems not unlikely that these complications are an expression of the presence of more serious accompanying disorders in this particular unselected group, rather than a reflection of the method of penicillin administration It may be, however, that the therapeutic response was slightly slower in the water solution series Further work will be needed to decide this point

The presence of anemia on admission and the existence of chronic alcoholism seemed to predispose to complications Of 16 patients with hemoglobin values below 12 Gm. per cent, eight had delayed resolution or empyema Four of the patients who had delayed resolution were chronic alcoholics

The results of the treatment of pneumonia with penicillin in water-in-oil emulsion, injected twice daily, do not seem to differ significantly from the results of other studies in which other beeswax and oil menstrua were injected twice daily, nor from the results obtained from the intramuscular injection of aqueous penicillin every three hours * By and large in this study patients became afebrile in three to four days and had a clear

* Two of the four cases of delayed resolution are the same individual. This man was admitted a second time with right upper lobe consolidation forty days after discharge for an earlier right upper lobe consolidation which had incompletely resolved when the patient refused further convalescent care. He donated blood within four weeks after the first discharge. Eventually he made a good recovery

TABLE 1.—Summary of Results in Oil and Water Series

	Number of Patients	Age		Response		Delayed Resolution	Empyema	Deaths
		Over 50	Under 50	Rapid	Slow			
Oil series	48	27	21	40	8	2	0	0
Water series	31	18	13	21	2	4	3	2

TABLE 2.—Summary of Results in Cases with Pneumococcal Sputum and Cases with Pneumococcal Bacteremia

	Number of Patients	Rapid Response	Slow Response	Delayed Resolution	Empyema	Deaths
		A. Cases with Pneumococcal Sputum				
Oil series	14	13	1	0		
Water series	16	11	1	2	0	0
		B. Cases with Pneumococcal Bacteremia			2	0
Oil series	3	3	0	0		
Water series	6	4	0	1	0	0
					1	0

roentgenogram of the chest in about three weeks, irrespective of the duration or the extent of the pneumonic process. The data indicate that the response of pneumonia to 300,000 units of penicillin in aqueous solution given twice daily does not differ significantly from that of cases treated with penicillin in water-in-oil emulsion, but this series is too small to permit definite conclusions.

Special emphasis should be directed to Tables 1 and 2, giving the results of treatment in cases in which pneumococcal typing was obtained and cases with bacteremia. It will be seen that the results of both the oil series and the water series were comparable to those of other series in which the patients were treated at more frequent intervals. As shown in Table 2B, all cases of pneumococcal pneumonia with bacteremia recovered, three in the oil series, and six in the water series.

It will be noted from Fig. 1 that a therapeutic penicillin blood level (0.050 unit per cc. of serum) in the oil series persisted for twelve hours, whereas a similar level was found for only six to seven hours in the water series. This observation, plus the clinical results, implies that a sustained therapeutic blood level of penicillin may not be necessary for the successful treatment of pneumonia.

Summary

Seventy-nine patients with lobar or bronchopneumonia were treated twice daily by the intramuscular injection of 300,000 units of penicillin. Forty-eight of these cases received penicillin in water-in-oil emulsion, 31 cases received a similar amount of penicillin in aqueous solution alone. Both forms of therapy were effective. While the incidence of complications was slightly greater in the aqueous solution group, no significant differences could be established in the therapeutic results of the two series.

It is suggested that an aqueous solution of 300,000 units of penicillin given at twelve-hour intervals intramuscularly may be an effective method of treating pneumococcal pneumonia despite the absence of a sustained therapeutic blood level of the penicillin. Marshall cites evidence that a sustained blood level of penicillin is not necessary for therapeutic effectiveness in certain experimentally induced infections.[6]

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ANNOUNCEMENT

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ALLERGY

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NOTWITHSTANDING earlier contributory observations which blazed the pioneer trail, the association of asthma, hay fever, and other allergic diseases with anaphylaxis and allergy did not materialize in practice until the turn of the last century It was Portier and Richet in 1902 who coined the word anaphylaxis to designate some unusual reaction following the initial inoculation of a foreign protein in animals [1]

In 1906 Von Pirquet used the word allergy to express hypersensitization to tuberculin.[2] Of late, allergy is used to describe a wide range of diseases, many having only a remote simulation to an allergic phenomenon. The pendulum has indeed swung too far when such conditions as myopia, cataracts, epilepsy, nephritis, and hypertension are explained on an allergic basis

After many years of allergic investigations and practical application, what has been wrought? Those of us who have lived through this period of allergic study and the use of many agents in the treatment of allergic diseases may well stop and try to evaluate some of the experiences of allergists in order to clarify, at least in our own minds, what has been accomplished and what improvement has been forthcoming to alleviate the many sufferings of allergic individuals

In a short discourse only a few high points of achievements and failures can be discussed First, and above all, it may be said that the development and use of allergic antigens has resulted in their intelligent use in testing, as well as in the treatment, of allergy which has added a great deal to the understanding of the subject Nevertheless, the fundamental mechanism, or modus operandi of the allergic phenomena, still lies much in the realm of the unknown. Just what constitutes the etiology or the physiochemical reactions involved in allergies certainly has not been clarified.

Much experimental work has been done to find the nature of the anaphylactic toxin responsible for the tissue reaction and shock in sensitization disease All the by-products of protein hydrolysis have been accused in the production of the violent symptoms of anaphylactic shock. Blood enzymes and antienzymes, proteins, peptones and amino acids have all been the subject of extensive investigation Up to now the outstanding formula advanced to explain many of the symptoms has been, briefly, as follows a sensitized cell develops adherent antibodies so that, when a second introduction of the specific antigen which previously illicited the antibody is given, there will result a biochemical union of the two reagents initiating a reaction and resulting in the production of histidine This is ultimately converted into histamine or H. substance, a highly toxic agent for all tissues. While the amount of histamine produced from the antigen injected is small, it further mobilizes the other latent histamine present in the tissues In 1910 Dale and Laidlaw first called attention to the similarity of the effects of histamine upon tissues and anaphylactic shock.[3] Recently, Dragstedt in 1945 observed that the role of histamine in allergy has been abundantly discussed but adds that this would not be the case if the question had been settled [4] He points out several arguments indicating that histamine plays a part in the allergic reaction

1 There is an analogy in the effects of histamine and anaphylaxis in animal and man.

2 There is present in human tissue enough histamine to cause symptoms

3 The similarity of allergy symptoms is analogous to the effects of histamine in human beings

4. It has been shown that histamine or a like substance is released during allergic reactions.

5 Clinically, the therapeutic use of histamine has been of some value in the treatment of some allergic diseases

While these statements may be true in part, the positive identification of histamine in the blood has not been made on the contrary It is true that one cannot desensitize tissues to histamine Histamine shock is not followed by the temperature and coagulation changes so characteristic in anaphylaxis Furthermore, quinine and alcohol increase the sensitivity to foreign proteins but have no effect upon the toxicity of histamine

It would seem that histamine is a concomitant finding in allergy somewhat analogous to the increase of sugar in the blood in diabetes, but neither can be accused of being the causative factors Both are the result of faulty biochemical reaction and an abnormal metabolism.

As diabetes may result from anterior pituitary, corticoadrenal, liver, and sympathetic nerve dysfunction, as well as from pancreatic pathology, likewise it is rational to consider disturbances of similar organs as playing a role in

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allergy Allergy as well as diabetes is inherited in recessive proportion to the Mendelian dictum of genetics Pancreatic pathology is only demonstrable in from 41 to 75 per cent of diabetics, while about 15 per cent of pancreatic pathology cases do not show diabetes, so that diabetes is due to multiple factors and not necessarily to destruction of the islands of Langerhans Allergies may well be explained by some similar metabolic dyscrasia A finality is lacking in any explanation of the complex phenomena and violent tissue reaction encountered in allergic shock Multiple causes undoubtedly interplay to produce such a biologic change

Having arrived at this point, it is time that I discussed a few practical applications and personal observations in the practice of allergy

Relation of Allergy to Rhinology

The upper and lower respiratory tracts are embryologically as well as structurally related so that the diseases of one area, such as sinusitis and bronchitis, have a correlated effect upon each other Sinusitis and allergy are so frequently associated that at times it is difficult to separate them and even more difficult to determine which preceded the other Experience has shown, however, that neither can be successfully treated if the other is neglected The essence of remedial measures is cooperation between the rhinologist and allergist, better still if someone has training in both conditions As it now appears, the two conditions can never be separated, and that is why this paper has been written and is also the reason for an allergy clinic in existence since 1916 at the Manhattan Eye, Ear and Throat Hospital for patients cleared through that institution.

Vasomotor or Perennial Hay Fever

Hay fever is probably an example of histamine tissue reaction, and the antihistamine drugs are of value but only for temporary relief These patients should take adequate nonshock dosage of specific antigens for many years While some will "outgrow" hay fever in time, this period can be shortened by proper hyposensitization injections As was expected, two groups of therapeutic procedures have developed, one of adequate dosage just short of reaction or shock and the other where only an infinitesimal fraction of an adequate dose is given The former has the sanction of immunity and anti-allergic practice, while the latter seems dilatory and inadequate, however safe to the unschooled in the usage of desensitization it may be Of these two we must, according to all immunization tenets and experience, subscribe to an adequate dosage

Perennial hay fever sufferers are legion and distressed Allergic studies help but are often disappointing A relatively small group reveals active allergic test reactions even with strong intradermal tests

Concerning the sensitization tests, I prefer the scratch test to the intradermal test because it can be made more comprehensive It is less painful and time-consuming, is highly specific, and sufficiently sensitive if a significant allergy exists The scratch test is not likely to cause a nonspecific or false reaction which frequently occurs with the intradermal technic It is also not fraught with severe or dangerous constitutional reactions The intradermal test is useful if a *more critical test* is desired Several permanent concentrated fluid extracts are now available for scratch testing so that it may be done with dispatch.

My experience with many of these hay fever cases has convinced me of a bacterial allergic factor, therefore, nose, throat, and stool cultures are routinely made upon these cases, as well as on asthmatics Escherichia coli or B Pyocyaneus are very common bacterial proteins concerned in the perennial cases and are routinely included in all autogenous vaccines along with the organism isolated from the upper respiratory tract Naturally, any extrinsic protein to which positive reactions are obtained are included

In the urticaria, conjunctivitis, and eczema cases a work-up and routine similar to those in vasomotor rhinitis are followed Many of these cases are bacterial or mycoid in origin, and the proper use of bacterial or fungoid antigens are often of value Vitamin C in large doses aids in some of these cases On the other hand, calcium and potassium have been of no value Many of these cases are neurogenic or psychosomatic and at times are very difficult to manage Dilantin has proved useful in some cases

Food allergy is an indefinite and uncertain factor when considering ingested foods, however, foods, when extrinsic in the form of powder such as wheat or rice flour, have a definite relationship to perennial hay fever, asthma, or dermatitis in certain industries

Asthma and bronchitis cover a very broad scope of allied symptoms In children asthma can frequently be shown to be allergic and the proper treatment instituted, however, in older people asthma seems to have some other, unknown factor beyond the allergic phase as a prominent cause Each case requires good history taking and long and patient forebearance on the part of the subject as well as the physicians Allergic antigens, mixed vaccines including E coli, and the careful elimination of foci of infections, as sinusitis, cholecystitis, appendicitis,

salpingitis, and infected teeth, are all valuable procedures Nevertheless, the relief of asthmatics still is far from solution Above all the injections of antigens and bacterial proteins must be continued for many years at stated intervals and without lapse in the treatment Many patients get tired too soon and discontinue injections This is very likely to occur if there are no more symptoms present In many cases the symptoms will recur when the patients give up injections with the sad result that if injections are again resumed they will not get the desired relief the second time Vaccine or foreign protein therapy is often a lifetime proposition

Histamines

The evidence of histamine playing an active role in allergy immediately stimulated investigators to try to neutralize its action upon cells Best in 1929 discovered an enzyme which neutralizes the action of histamine in vitro However, when tried clinically it soon became evident that histaminase was of no value, but great was its commercial exploitation Then followed the development of histamine-inhibiting agents Benadryl was among the first (1946) antihistaminic drugs available to the medical profession in this country This drug has been used extensively, and while it does give some relief in hay fever and allergic dermatosis, it is of little value in asthma Because of unpleasant side-effects it has lost popularity Pyribenzamine is another antihistamine drug available, and in our experience is to be preferred to Benadryl, but it too is of little value in asthma. Many drugs have been tried, namely, Antergan, Neoantergan, Anthallan, Hydryllin

In our clinic we have treated some 275 cases of various allergies with a new drug Nu-1504 or Thephorin. This drug was developed to avoid some outward effects encountered with the antihistaminic drugs now available It acts as a histamine antagonist on a different basic chemical structure One action of Thephorin is to counteract the effects of adrenalin upon arterial pressure, while most of the other known antihistamine drugs potentiate its action. Thephorin has a prolonged and sustained effect in allergy Nothing is known about the mechanism of its action, but it is suggested that the antihistamine effect is similar to Benadryl or Pyribenzamine in spite of its different chemical structure In the cases treated in our clinic it appears effective in vasomotor rhinitis, hay fever, and allergic dermatitis but is of very little value in asthma In some cases it also manifests toxic symptoms, such as nausea, vomiting, or nervous irritations. Its use is, as yet, too limited to be finally evaluated.

From my experience the place and value of histamine and antihistamine treatments in allergy have been exaggerated and are not borne out in the practical application Since this has occurred to others (we see now), there will no doubt be a new approach by some therapeutic enthusiasts who base their claims not on an antihistaminic activity but on some other nebulous action

In migraine, asthma, and neurodermatitis there are many factors besides allergy which create psychic reactions These act in a complementary fashion to instigate an allergic syndrome Evaluating these reactions requires the exercise of much intuition (or the art of medicine if you please) Such an approach is valuable in spite of fixed scientific principles of psychosomatic technic For instance, heredity, childhood neuroses, and specific emotional disturbances which accompany puberty and paternal or marital responsibility are all factors to be evaluated by good history taking

French and Alexander have offered a very comprehensive psychologic study of bronchial asthma and have particularly noted a dependent and infantile relationship to parents, etc , which, if jeopardized, would initiate asthmatic attacks [5] Weiss observed that it is possible to evaluate the physical or allergic reactions along with the psychologic factors leading to the proper management of allergic diseases [6]

Conclusion

There needs to be a resolving spirit in order to separate the true and the false, to clarify what is exploitation and what are honest efforts toward the solution of this complicated problem. One must conclude from a review of the voluminous and inconclusive literature of today that allergy has almost replaced cancer as the queen bee of diseases for exploitation because of the very complicated nature of the disease Certainly, final words have not been written on this baffling subject, but the problem as a whole is becoming slowly but definitely clearer year by year Perhaps too much emphasis on the histamine theory has had a blinding effect and caused a deflection of effort from more fruitful fields

It is apparent that in future investigations it will be appropriate to intensify the study of metabolic and endocrine disturbances, to correlate the multiple factors in allergy, to measure circulating toxins and the production of antibodies as well as antibody blocks, to develop further therapeutic perfections in the administration of pollens and other antigens in order to obtain slow nonreactive absorption, thus to maintain continuous desensitization action from fewer injections such as exists in a delayed insulin injection treatment.

Finally, if there is a known hereditary factor in a family, attempt should be made early to prevent exposure to infections and extrinsic agents to avoid the initial onset of allergic diseases This applies particularly to asthmatics with a bad family history They should use all possible preventative measures to avoid upper respiratory infections

In the practice of allergy, physicians should broaden their scope of medical interest to think more of body physiology and pathology in its correlated entirety than of the upper respiratory tract as if it were set apart

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THE PSYCHODYNAMICS OF CHILD BEHAVIOR

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CHILDREN are the most misunderstood of all persons There is no other age group toward whom so much anxiety and love, or rejection, or ambivalence is directed Thus, the child often presents as much of a dilemma for the adult as the adult does for the child The child is created through no fault or desire of his own He starts out in life naive and impressionable, with certain innate endowments, and usually with parents who will be the greatest force for good or evil during his formative years

The first question to consider is why parents have children Presumably, at least in our type of society, many children are born because of the Eros or love instinct for creation which pervades a man and a woman who are physically attracted to each other These children are usually planned for, wisely or unwisely as the case may be Some children are born because their parents' religious convictions forbid the mechanical prevention of conception Still other children are conceived accidentally by parents who are under the influence of alcohol or under the delusion of trusting to defective contraceptive devices or to "change of life" Others are created as an emergency device in the hopes of cementing a failing marriage relationship Finally, some are conceived by unwilling mothers, not for love or religious scruples or by accident, but on the deliberate advice of a doctor, as a therapeutic instrument for attempting to correct a malposition of the uterus

It is obvious that these different motives will produce different attitudes in the respective parents toward their children, and so will affect the personalities of the respective children diversely Children born of a union of love are generally wanted and are identified to some extent by each parent with the other If the parents are well adjusted in their relations with each other, the chances are that the children will be well adjusted The child who is conceived because of religious abstinence from contraception may also be well accepted by the father and mother and loved by them Religion, after all, is based on ethics and exercises a moral influence in many spheres The child who is an "accident" all too frequently is treated with the attitude that persons have toward unwelcome mishaps This individual will almost certainly be rejected, spurned, and made the butt for all that annoys the parents He will virtually be blamed for being born and will be identified by each parent with the unfavorable characteristics of the other Needless to say, the "emergency" baby rarely succeeds in improving a poor marital relationship, and, if the parents' sense of duty to the baby keeps them married, they generally never forgive the baby for this The "therapeutic" child is never thanked for the relief he may bring his mother by straightening her womb, and, not being wanted as a baby, he may be treated with apathy or rejection

Before deviate and aberrant personalities are considered, the mechanism of the development of

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the normal personality should be considered The psychologic development of the individual proceeds essentially along three lines—psychosexual, social, and moral. These are more or less related and overlapping For the newborn infant the entire world begins and ends in himself He is aware only of stimuli which affect his senses directly, such as cold, hunger, bright lights, and sudden loud noises He reacts most strongly to noxious stimuli and protests in self-protection He is purely an *id* creature at this level, with no demarcation between conscious and subconscious mind Then he gradually becomes aware of the outside world around him in an egocentric way He sees moving blurs, *then objects and persons* Soon he distinguishes familiar faces from others By the end of the first year he has developed an ego or *conscious purposeful response to his environment* He begins to learn and to apply restrictions to his *id* impulses Still his personality has not become clearly defined, and it is not until he is about two and a half years of age that he can differentiate persons and possessions in terms of personal pronouns Then he becomes a first person singular "I" or "me" instead of "Billy" or "the baby"

Now his social development is well on its way There also occurs the transition from a polymorphous sexuality where any and every part of the infant's body shares about equally the ability to be physically gratified, to a more specialized oral, anal, and perhaps even genital level of physical gratification, although the latter generally occurs much later The young child may indulge in an infantile type of masturbation purely for sensation, without abstract thoughts The attraction to the parent of the opposite sex makes its appearance as the child moves into the latent stage between infantile sexuality and prepubertal heterosexual interest at about five or six years of age This attraction produces identifications and imitations which serve to pave the way toward future social activity and heterosexual adjustment On the other hand, there develops latent or overt hostility toward the other parent which may produce ambivalence or remain as hostility The conflict with and acceptance of authority, or the compromise attitude toward it, arises in the relationship with the father It is during the latent stage of psychosexual development, when the child experiences the height of his oedipus conflicts, that he begins to aquire a *conscience* His actions, which were completely governed and restricted by parental approval or disapproval, now become objects of his own *censorship* As a result of the process of identification with the father, the child gradually becomes capable of introjecting the governing force within himself to form his superego or conscience. This enables him to modify his conscious and unconscious drives to produce the integrated social behavior which is the overt manifestation of his personality Thus, personality is fairly well delineated by the time the child enters adolescence No small role is played by the child's imitation of the actions and thoughts of older siblings

One can generalize and say that most personality deviations from normal are the results of psychic traumata, acute or recurrent, and usually multiple In the psychotic patient, there is an underlying disease process which may be set off by minimal or by no apparent psychic trauma. *Deviate children*, on the whole, fall into six categories (1) primary behavior disorder, (2) neurotic personality, (3) psychopathic personality, (4) mental deficiency, (5) organic brain conditions, and (6) psychoses

The primary behavior disorder appears in the *otherwise normal child* who is under stresses and tensions from such factors as rejecting parents, fighting in the home, neurotic parents who nag at him, too much pressure for scholastic achievement where the intelligence capacity is limited—to mention only a few

When marked psychic trauma is associated with specific basic functions, neurotic traits and neurotic personality develop For example, too early or too rigid weaning from breast or bottle, too early or too rigid toilet training, forcible prevention of thumb sucking, and so on, may result in functional enuresis, functional constipation, prolonged thumb sucking, nail biting, or stammering Early sex trauma, either in the form of seduction or observation, may influence the development of neurotic behavior Masturbation appears at two stages and is virtually universal in its occurrence The infantile type is merely a rhythmic physical erotism in which the genital stimulation is not accompanied by thought fantasies of sexual relations Often the genital, anal, and oral pleasures are not clearly differentiated psychologically by the very young child The adolescent type is definitely centered upon the genitals and the autoerotism is practiced with *fantasies of hetero- or homosexual activities* Psychic trauma is often related to either stage, whether due to general feelings of tension and *insecurity in the child, or to direct attention by the* parents to the act with threats or punishment on their part and reactions of guilt in the child *Such trauma may very well instigate the prolongation* of either type of masturbation into adulthood in many cases and even to the extent *of preventing the normal psychosexual adjustment* of the individual

Behavior problems in children are *manifestations of their sadomasochism* The problem

whatever it may be—enuresis, feeding difficulty, etc—begins as a demonstration of hostility against the parent or parent substitute, due to real or fancied grievances This progresses into a cycle of hostility, guilt feelings, need for and demand for punishment, further hostility as a result of punishment, and so on in self-perpetuation

The psychopathic personality is a person who is devoid of a social conscience, one who is unable to live properly in the family group or in the larger social group It has already been noted that the individual acquires his social conscience mainly by introjecting the father authority into his own mind Thus, anything that will deprive the child of his father or father substitute during his formative years may contribute to the creation of a psychopathic personality The child who grew up during the war years, without the presence of his father, and frequently with a mother working part-time, may become an antisocial delinquent The psychopathic personality is often clever and plans his repeated difficulties without feelings of remorse and with a completely hedonistic attitude

Mental deficiency and organic brain conditions, including head injuries with their sequelae and various types of epilepsy, present problems mainly in management and become serious difficulties when they are associated with detrimental environmental factors In some respects the psychoses resemble the organic mental diseases and probably owe their pathogenesis to a combination of intrinsic and extrinsic factors

Children are too often viewed as miniature adults who should think and reason as their elders but have none of their freedoms or privileges It is worth considering what children do think, or rather, how *they think* The *concept* which cannot be stressed too strongly is that, while the adult is a grown-up child, the child is not a young adult The maturity of the adult represents a qualitative as well as a quantitative metamorphosis from childhood as a result of experience, frustrations, cynicism, and the veneer of society The adult neurotic is fixated at a childish level of emotional development

The child's thought content may be compared to that of primitive, uncivilized man in his magical beliefs and in his feelings of omnipotence The child dwells in a world of fantasy where wish-fulfillment often blurs the dividing line between what the youngster believes and what he makes-believe In his day dreams, as well as in his night dreams, he kills, resurrects, transforms, and rules with ruthless, sadistic magic born of a psychologic ignorance of his own mortal limitations The young child is egocentric and amoral

These fantasies and magical beliefs are responsible in large part for the common, and at this age level, normal compulsions and ritual types of behavior Thus, children may frequently be seen walking along the street stepping on or avoiding cracks in the pavement, or touching every telephone pole or every other one There are many other types of ritual superstitious acts, some involving counting or recitation of certain phrases or formulas These actions easily become converted to and fixed as bad habits, behavior difficulties, and neurotic traits under emotional strains

The child is notably less inhibited than the adult and, therefore, reacts to pressure or inimical situations, usually with hostility, aggression, and even destructiveness On the other hand, what is frequently taken for aggression in the young child may be normal behavior for his exploring age, and what is frowned upon as destructiveness may be activity stimulated by the curiosity of the child who is probing and taking apart his environment in order to see "what makes it tick"

Why is a problem child brought to a psychiatrist? First of all, it must be borne in mind that no child is born bad, although he may have certain constitutional defects which make him more prone to deviate Thus, almost without exception, all problem children are products of their environment, and a large number owe their problems to their parents There are essentially two types of mothers who bring their offspring to psychiatrists One is sincere in her desire to correct the youngster's behavior She realizes her own responsibility and wants advice and help She has often been misguided and overanxious and responds well to correction and advice. The other type, unfortunately the majority, is the neurotic parent who expresses her own neuroses *through her child This parent has* a large amount of guilt feeling and compensates with a halo of self-justification, complaining about the child as if he were a self-perpetrating evil force She comes to the psychiatrist, not for help or advice, but to transfer the burden of responsibility for the child's badness and of its cure onto the doctor She constantly challenges the doctor and expects miraculous swift cures without cooperating with him Of course, the second type of case is more difficult and often impossible to cure Here the parent may also benefit by psychotherapy, preferably with another psychiatrist Wards of social agencies who are without parents because of either death or rejection are starved for love and react according to their experiences in society There are more psychopathic personalities in this group than among *the home-grown* problem children

The child psychiatrist must first of all have a sincere understanding of children He must think and talk to them on their own level without

any attempts at awing or impressing them. Children are too naive to appreciate bombast In general, the doctor must establish confidence and respect it He must allay suspicions by deed as well as by word He must be on the child's side and contribute to the latter's personal satisfaction. On the other hand, the doctor must be tactful with the parents and enlist their cooperation, too If the parents are too resistant and it becomes apparent that they are using the doctor as their foil, the case may prove to be very difficult

One of the major achievements of adulthood in our type of culture is the increased ability to verbalize. The average adult patient who comes to the psychiatrist does so of his own accord because he is troubled and wishes to talk about his troubles The therapy is, therefore, conducted mainly on a verbal level Conversely, the child who may be dragged, tricked, or bribed into the psychiatrist's office generally cannot or will not verbalize his troubles He lacks the adult's facility for clothing thought in language, and his suspicions and fears further block his speech. Thus, other methods have to be employed in treating children.

The term, child's play, is notoriously misconstrued For a child, playing is not merely amusement or relaxation It is his living It is more important and serious for him, in many respects, than the adult's occupation is for the latter An occupation is a means to an end, the acquiring of wealth, food, and so on The grownup has other forms of experience and social intercourse The youngster, however, learns life with its frustrations and rewards and how to live with his fellows through play Play is his serious occupation This medium is the most important tool of the child psychiatrist In playing with dolls representing adults and children of both sexes, with toy furniture, and so on, a child will be able, with the psychiatrist's help, to work out his problems For example, soldiers and war toys afford wonderful outlets for aggression

Art work is another important means of diagnosis and treatment Paints and crayons afford the child a dual method of expression, form and color Aggression will be manifested in drawings of violence and killing, compulsiveness will be depicted by repetitious, darkly and sharply outlined pictures, depression will show up in the use of dark colors, etc The bizarreness of the schizophrenic's thoughts and concepts will be reflected in his pictures, especially those of persons Modeling clay is a wonderfully expressive medium. It is three-dimensional, malleable, and resembles feces The hostile pants-soiler will mash, smear, and throw the clay around Other children will express their problems symbolically with clay

These methods of psychotherapy give the examiner some clue to the intelligence level of the child Nevertheless, the psychiatric examination should be supplemented by psychometric tests, performance, verbal, and even projective technics like the Rohrschach, where indicated Therapy helps the young patient work out his hostility, gain insight or awareness, and gain reassurance All this must, of course, be accompanied by the modification of the parents and other environmental factors The psychotic child, who is usually schizophrenic, can be aided by psychotherapy if he has a good level of intelligence and if the parents will cooperate

The question of institutionalization frequently arises The three main reasons for committing a child should be too severe a mental disturbance to allow unrestricted activity, removal of the child from a seriously inimical environment pending evaluation of his behavior and placement in a new home, and the need for more intensive observation of the case for diagnosis and appraisal Institutionalization is rarely without psychic trauma for the child He is more or less profoundly affected by such things as separation from parents and home, increased guilt feelings, fears, and anxieties due to his regarding the hospitalization as a punishment for doing evil, and exposure to other problem children with all of their bad behavior traits Whenever and wherever it is possible to do so, treatment of the child should be carried out in the office while he continues to live at home, his own or a suitable foster home It should be borne in mind that, as far as the youngster is concerned, a poor home situation or inadequate parents may often be better than none

65-60 Booth Street

Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo

Case Reports

EPIDERMOID CARCINOMA COMPLICATING CHRONIC OSTEOMYELITIS

EMANUEL BLUMENFELD, M D , F A C S , New York City

(From the Department of Pathology, Bronx Hospital)

THAT carcinoma may develop in old ulcers or sinuses associated with chronic osteomyelitis has long been recognized The lesion is more common in males, occurs in middle life or beyond, and is associated with foul-smelling ulcers and sinuses about the lower leg and foot The diagnosis is usually suspected by finding a cauliflower mass surrounding the fistulous opening, although in some cases there may be no external evidence of malignant disease X-rays are not characteristic and rarely reveal a typical malignancy The average duration of the draining sinuses is thirty years As a rule metastases are an exception, and the local lymph nodes, when enlarged, are usually of an inflammatory nature The following is a report of a case of carcinoma complicating chronic osteomyelitis of the tibia

Case Report

F W was admitted to Bronx Hospital, December 13, 1946 The patient gave a history of pain in the right leg and painful swelling of the right knee for two weeks Additional history from the family indicated that the patient had had chronic osteomyelitis of the right leg for over thirty years She had had two operations, the nature of which were unknown, the first thirty years previously and the second one year prior to her present admission. Small fragments of bone had been coming out of the wound since the first operation, thirty years before

During the first half of 1946, she was hospitalized at two different institutions *Records from* Knickerbocker Hospital show that she was admitted on January 12, 1946, with a bleeding ulceration on her leg It was noted that the patient had a chronic osteomyelitis X-ray of her leg revealed a well delineated bony defect of the proximal third of the tibial shaft occupying the anterior and medial aspect of the bone, surrounded by an extensive periosteocortical thickening and endosteal sclerosis There were a few minute bony sequestra within the bony defects On January 14, 1946, the ulcerated area was curetted, and culture revealed Bacillus pyocyaneus The discharge diagnosis on February 10, 1946, was chronic osteomyelitis of the right tibia with pyocyaneus infection

She was hospitalized at Fordham Hospital from March 21, 1946, to June 5, 1946 X-rays of the skull, long bones, and chest were negative The discharge diagnosis was chronic osteomyelitis of the right tibia.

Physical examination at the present admission revealed a frail, emaciated, pale, elderly white female, lying quietly in bed in no acute distress. Her temperature, pulse, and respirations were normal. The skin was clear, pale, warm, and dry and showed signs of recent weight loss An acute pharyngitis was present Heart and lungs were negative. The abdomen was relaxed, soft, nontender The right leg presented a larger ulcerated area at the upper third near the inner tuberosity of the tibia. This cavity was filled with a creamy foul pus. Removal of the pus disclosed dirty granulations at the bottom of the cavity, the walls of which contained crevices. The adjacent skin seemed continuous with the granulations which bled very easily on being wiped There was a foul and offensive odor present. The right knee was swollen, warm, and exquisitely tender Several enlarged inguinal nodes were present, and the knee was held flexed at 110 degrees, any attempted motion causing pain The admission diagnosis was chronic osteomyelitis, but malignancy was also considered

The laboratory data including urine analyses and blood counts were not remarkable except for a report of moderately severe secondary anemia, easily controlled by blood replacement Wassermann and Kahn tests were negative During her stay in the hospital, her temperature reflected an accumulation of pus in the vicinity of the lesion in her leg and a sympathetic synovitis For the first three weeks, the temperature ranged from 102 to 103 F By the fourth week, after multiple incisions and drainages about the areas of fluctuation in the upper tibia, her temperature fell to a lower level, not exceeding 101 F , and, from the fifth week to discharge, ranged between 98 and 100 F

Radiographic examination of the right leg and knee on December 12, 1946, showed a large zone of irregular bone sclerosis, occupying the upper fourth of the tibia, surrounded by a large bony defect (Fig 1) There was marked thickening of the synovia of the knee X-ray of the pelvis showed no abnormality X-ray of the chest on December 16, 1946, was negative

On December 23, 1946, pathologic examination was made of scrapings from the depth of the crater and biopsy specimens taken from the overhanging lips, including the periosteum and bone from the proximal and distal ends and depths of the crater Histologic examination of the biopsy specimen revealed the following Specimen consisted of many irregular fragments of reddish-brown and yellowish white firm tissue together with a small amount of bone The largest specimen measured 2 by 1 cm. in size The yellowish-white portions of tissue appeared to be covered on one surface by skin Microscopic section consisted of skin, subcutaneous tissue, and bone The skin was thickened in areas, and a moderate degree of hyperkeratinization was present The deeper portions of the section, including bone marrow, were infiltrated by an epidermoid carcinoma which was fairly well differentiated A number of pearls were present. A considerable number of



FIG 1 Radiographic examination of the right leg and knee December 12, 1946

round cells were seen and some polymorphonuclear leukocytes, particularly in the subcutaneous tissue The diagnosis was epidermoid carcinoma infiltrating bone marrow and chronic inflammation.

The patient was seen again on January 7, 1947 At this time there was noted a squamous cell carcinoma of the skin extending down to and diffusely involving bony structure. Upon reviewing the case and histologic report, a high thigh amputation was advised

While awaiting the report of the biopsy, multiple incisions and drainages were done about the fluctuating areas over the inner surface of the upper leg, but not involving the knee joint. Drains were left in situ, and the patient was treated expectantly until the gross infection was under control and her temperature was down. Thus, on January 17, 1947, a guillotine, flapless midthigh amputation was performed, traction being applied to the stump by means of adhesive straps. At the same time, the inguinal nodes in the groin were removed for examination. These did not reveal any evidence of malignancy

Her postoperative course was uneventful, so that by February 14, 1947, a secondary revision of the skin wound of the stump was performed followed by healing Her convalescence continued uneventfully and by March 3, 1947, she was allowed out of bed with crutches.

The pathology report was as follows

Gross Examination—Specimen is a right lower limb, 55 cm. in length, amputated 18 cm. above the knee Two incisions are present, one 11 cm in length on the posterior surface of the knee and another, 2 cm. in length, on the medial surface of the knee. These incisions were counter incisions made prior to the amputation. Five centimeters below the knee on the anterior aspect is a large ulcer eroding through all tissues into the bone There is a necrotic, grayish, friable granulation tissue present in the center of the ulcer The ulcer measures 6 cm in diameter The margins of the ulcer are smooth and covered with atrophic skin The skin on the margins extends down to the necrotic area On the longitu-

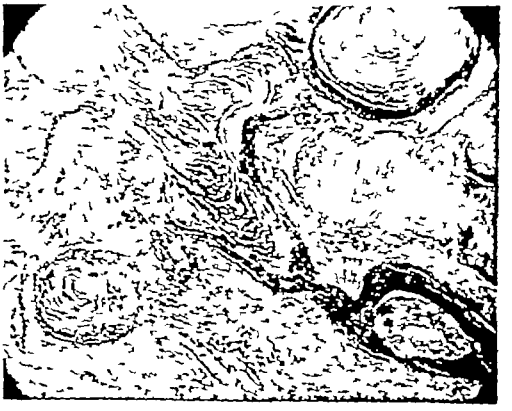


FIG 2 Photomicrograph of section of skin from area adjacent to ulceration.



FIG 3 Photomicrograph of section of bone marrow at base of ulceration—(*A*) bone trabecula, (*B*) stratified squamous epithelium.

dinal section of the bone the areas immediately above and below the ulcer are studded with areas of necrotic material exuding pus The areas are dirty gray in appearance There is no expansion, but there is marked thickening of the cortex which is intact The tibia is sclerotic immediately posterior and inferior to the ulcer The cortex below the sclerotic area is 2 mm in thickness The cortex of the femur is 2 mm. in thickness The bone marrow of the tibia and femur are replaced by soft, fatty, pinkish-yellow marrow The periosteum of the tibia and femur strips with ease The knee joint as well as soft tissues were uninvolved grossly

Microscopic Examination —The center of the specimen reveals extreme hypertrophy of stratified squamous epithelium with tremendous pearl formation The marrow reveals a diminution of normal marrow elements and fragments of trabecular bone which appears viable The marrow spaces contain a moderate amount of fibrous tissue Many of the epithelial pearls have undergone collagenous degeneration The basal layer of the stratified squamous epithelium shows disappearance of layering, with pink hyalinization of the basal layers so that they resemble a collar of hyalinized tissue, the superficial layers still retain flattened stratified epithelium Throughout, the columns of stratified squamous epithelium have increased to many times their normal thickness In no area is there normal skin In some areas, there is marked fibrosis of the marrow space through which these huge circular keratin pearls have infiltrated Pearls of stratified squamous epithelium enclose marrow spaces beneath a thick layer of granulation tissue containing many blood vessels which are empty, there is marked infiltration with round cells and polymorphonuclears, the former predominating Epithelial pearls are dispersed through the granulation tissue The surface of the granulation tissue is denuded and covered with red blood cells and polymorphonuclear cells (Figs. 2 and 3)

Conclusions

Carcinoma is a rare complication of longstanding osteomyelitis The diagnosis is easy when the lesion is superficial but difficult when it is deep-seated. Clinically, suspicion is aroused by an extremely foul odor, by the occurrence of hemorrhage, and the onset of pain without apparent reason The lesion should be thoroughly curetted and histologically examined in an effort to determine the presence of malignancy Once diagnosed, if the case does not fall into the category of local excision, amputation of the involved extremity is advocated This is usually attended by cure in view of the low grade, failure to invade, and slow-growing character of the lesion Prophylactic extirpation of all sinuses, especially epithelial-lined sinuses, would lead to the elimination of this condition

2021 Grand Concourse

The author wishes to acknowledge the kind cooperation of Dr Joseph Felsen for his review of this paper and the preparation of photographs and microscopic sections and to Dr Samuel W Boorstein for his kind permission to utilize the clinical material in this presentation.

"DOCTOR JONES" SAYS—

"Jack Spratt could eat no fat" When that first came out I don't s'pose it excited much comment in scientific circles. But, if a statement like that, about a prominent person like Mr J Spratt, was conspicuously published today it'd start some of the doctors and nutritionists speculating "Who says so?" That'd probably be their first question and then, "Why can't he eat any fat?"

They'd know (at least if they'd read the same article I have) that, for good nutrition, it's highly desirable to have fats in the human diet—enough to furnish around a quarter of the total number of calories A normal person should be able to digest it But they know, too, that the digestion of fats depends a lot on steapsin, an enzyme in the pancreatic secretion and in bile So they'd be interested to know whether Spratt had anything wrong with his pancreas or his bile-works Anyway, people that can't eat fats (plural), or think they can't, they try, nowadays, to find out why

Fats being plural that just indicates that there's different kinds of fats, depending on their chemical setup Some, like that from mutton, are harder to digest because it takes more heat to melt 'em. For that same reason some of our grandmothers used 'em to make tallow candles

The body, it seems, can manufacture fat from carbohydrate and protein foods But, to get enough that way, it takes too much bulk of those other things "Dyspepsia" is common in Japan, they say, apparently because their diet's mostly carbohydrate—not enough fat. It causes too much fermentation

The old question whether milk fat is more nutritious than the fats used in margarine—this article said that still wasn't positively *settled But one* interesting thing it said the chemical composition of human milk fat more nearly resembles margarine than butter fat When fats are scarce a fat man has temporary advantage He's got *surplus fat* in storage He's like a camel that *can live a long time* on its hump —*Paul B Brooks, M D , January 3, 1949*

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NECROLOGY

David Hastings Atwater, M D , of Rochester, died on February 7 at the age of seventy-three Dr Atwater was graduated from Syracuse University, College of Medicine, in 1902, and for the past twenty-nine years had served as coroner of Monroe County A former director of the National Association of Coroners, he was a member of the New York State and Monroe County Medical Societies and the American Medical Association

John MacEvitt Auwerda, M D , ear, nose, and throat specialist of Brooklyn, died of a coronary thrombosis on January 11 His age was sixty Dr Auwerda received his medical degree from the Long Island College Hospital in 1912 and later did postgraduate work at the University of Pennsylvania He was senior surgeon at the Brooklyn Eye and Ear Hospital, consulting surgeon at Nassau Hospital, and a member of the staffs of St Mary's, Norwegian, and Holy Family Hospitals Dr Auwerda, a diplomate of the American Board of Otolaryngology and a fellow of the American College of Surgeons, was also a member of the American Medical Association and the New York State and Kings County Medical Societies

Edward Cussler, M D , sixty-six-year-old New York physician, died on February 2 Dr Cussler, a graduate of the College of Physicians and Surgeons, Columbia University, in 1904, interned at New York Hospital and continued his association with that hospital for more than forty-five years He was an assistant professor of medicine at Cornell University Medical College, a consulting physician at New York Hospital, and attending physician on the staff of the Westchester Division of New York Hospital at White Plains Dr Cussler was honored last month for his long service at the New York Hospital He was a member of the New York Academy of Medicine, the New York State and County Medical Societies, and the American Medical Association

Isidor J Ehlin, M D , of the Bronx, died on February 1 at the age of forty-seven Dr Ehlin was associate urologic surgeon at the Metropolitan Hospital where he had served his internship after his graduation from the Eclectic Medical College of Cincinnati in 1927 He was also chief of urologic surgery in the outpatient department of Lebanon Hospital and a physician in the Department of Health Social Hygiene Clinic At one time Dr Ehlin had been physician at the old Tombs Prison At the time of his death he was a member of the New York State and Bronx County Medical Societies, the American Public Health Association, and the American Medical Association

Harriet Williams Hale, M D , eighty-two-year-old retired physician, died at her home in Shushan Dr Hale, a resident of Brooklyn for more than seventy years before moving to Shushan, was graduated from the New York Medical College and Hospital for Women in 1896 and practiced medicine in New York City until her retirement in 1940 She was a former member of the staffs of Cumberland, Prospect Heights, and Memorial Hospitals, Brooklyn Dr Hale had been a member and past vice-president of the American Institute of Homeopathy and a member of the New York State and Kings County Medical Societies and the American Medical Association

Abraham M Litvak, M D , sixty-six, died at his home in Brooklyn on January 28 Dr Litvak received his medical degree from the George Washington University Medical School in 1920 and served his internship at Lincoln Hospital, Bronx, and Kingston Avenue Hospital, Brooklyn He was resident physician at the latter hospital until 1924 when he entered private practice He was director of pediatrics at Beth-El Hospital, Brooklyn, and was president of the medical board of Kingston Avenue Hospital where he was also a visiting physician Dr Litvak was an associate pediatrician at Jewish Hospital, Brooklyn

Author of more than seventy papers in the field of pediatrics, Dr Litvak was a fellow of the American College of Physicians and a licentiate of the American Board of Pediatrics He was a member of the American Medical Association, the American Academy of Pediatrics, the Brooklyn Academy of Pediatrics, the Brooklyn Academy of Medicine, the East New York Medical Society, and the New York State and Kings County Medical Societies

James F McKernon, M D , retired ear, nose, and throat specialist, died at his New York City home on January 22 at the age of eighty-three Dr McKernon, who received his medical degree from the College of Physicians and Surgeons, Columbia University in 1890, began his long association with New York Post-Graduate Medical School and Hospital in 1900 with his appointment as professor of otology He was elected president of the board of directors in 1911, resigning in 1917, and was re-elected in 1919 He served as president until his retirement in 1928 when he received the title of honorary president

Commissioned a captain in the Medical Reserve Corps in 1917, Dr McKernon helped organize Base Hospital 8, the Post-Graduate war unit, with which he served in France He attained the rank of colonel while overseas and became chief consulting otologist to the American Expeditionary Forces.

Dr McKernon, also formerly associated with the Manhattan Eye, Ear, and Throat Hospital, was a past president of the New York County Medical Society, the American Otological Society, and the American Laryngological Society He was also a fellow of the American College of Surgeons and a member of the New York Academy of Medicine, the New York State Medical Society, and the American Medical Association.

Carl Mund, M D , died on January 19 in his eighty-second year A resident of Manorville, Dr Mund was graduated from the College of Physicians and Surgeons, Columbia University, in 1892

Robert Earl Pound, M D , fifty five, died of a heart attack on February 6 Dr Pound, director of roentgenology at Lawrence Hospital, Bronxville received his medical degree from the University of Virginia Department of Medicine in 1916 In the first World War he served in France as a major in the Army Medical Corps A diplomate of the American Board of Radiology and a fellow of the

[Continued on page 552]



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[Continued from page 550]

American College of Radiology, Dr Pound was a consultant roentgenologist on the staffs of Yonkers General Hospital, Yonkers, Misericordia Hospital, New York City, Dobbs Ferry Hospital, Dobbs Ferry, and United Hospital, Port Chester He was formerly secretary and trustee of the New York Academy of Medicine and was a member of the American Medical Association, the American Roentgen Ray Society, the New York Roentgen Society, and the New York State and County Medical Societies

Abraham Hellman Salzberg, M D, died February 4 of a heart ailment at the age of fifty-one Dr Salzberg, a Brooklyn gynecologist, was graduated from the University of Maryland School of Medicine in 1922 He was an associate gynecologist at Jewish Hospital of Brooklyn and was also a diplomate of the American Board of Obstetrics and Gynecology and a fellow of the American College of Surgeons He was a member of the American Medical Association, the Brooklyn Gynecological Society, and the New York State and Kings County Medical Societies

James S Unger, M.D, seventy-four-year-old specialist in diseases of the eye, died of a heart attack at his New York home on January 19 He was graduated from the College of Physicians and Surgeons, Columbia University, in 1896 He was a former assistant ophthalmic surgeon at the Manhattan Eye, Ear and Throat Hospital and had taught ophthalmology at the New York Post-Graduate Medical School and Hospital and at the Vanderbilt Clinic He was a member of the New York State and County Medical Societies and the American Medical Association

John Elmer Weeks, M.D, nationally known ophthalmologist and professor emeritus at New York University, died on February 2 at the age of ninety-five Dr Weeks received his medical degree from the University of Michigan Medical School in 1881 and took postgraduate work at the University of Berlin He was first assistant in the department of ophthalmology of University Medical College from 1886 to 1888 and at the College of Physicians and Surgeons, Columbia University, from 1888 to 1890 He was also professor of ophthalmology and otology at Woman's Medical College and was surgeon at the New York Eye and Ear Infirmary from 1889 to 1920 During the first World War he served as a lieutenant in the Medical Reserve Corps From 1900 to 1920 he was professor of ophthalmology at the University and Bellevue Hospital Medical College, becoming professor emeritus in 1920

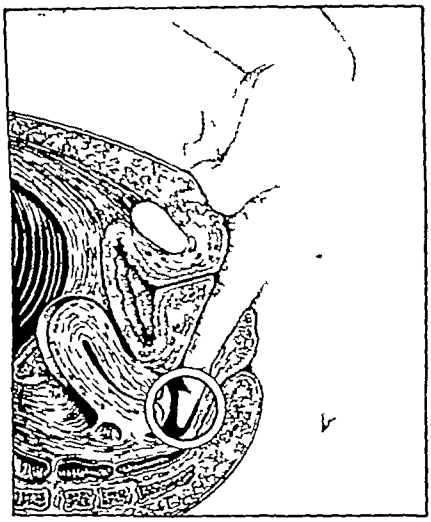
Dr Weeks was codiscoverer of the Koch-Weeks bacillus and was also famous for developing an operation for inserting an artificial eye into the eye socket. He was the author of *Diseases of the Eye* and wrote more than sixty monographs on ophthalmology In 1929 he received the Ophthalmological Research Medal from the American Medical Association A past-president of the American Ophthalmological Society and the New York County Medical Society, Dr Weeks had been chairman of the ophthalmologic sections of the American Medical Association and the New York Academy of Medicine A fellow of the American College of Surgeons, he was also at one time a member of the American Academy of Ophthalmology and Otolaryngology

Abraham O Wilensky, M.D, of New York, died of a heart attack on February 4 at the age of sixty three Dr Wilensky, a fellow of the American College of Surgeons and a specialist in abdominal surgery, was the author of many works on osteomyelitis and other subjects He was a graduate of the College of Physicians and Surgeons, Columbia University, in 1907 and interned at Mount Sinai and Lying-In Hospitals He was attending surgeon at Mount Sinai, Bronx, and Beth David Hospitals, chief of the surgical service of the Brownsville and East New York Dispensary, and consulting surgeon at Crown Heights Hospital, Brooklyn He was a member of the American Association of Thoracic Surgery, the American Medical Association, the New York Academy of Medicine, and the New York State and County Medical Societies

Ward Young, M D, seventy-seven-year-old eye, ear, nose, and throat specialist of Gouverneur, died on January 26 of a heart ailment A diplomate of the American Board of Otolaryngology, Dr Young received his medical degree from Queens University, Kingston, Ontario, Canada, in 1898 He took a course in postgraduate study at the Manhattan Eye, Ear, and Throat, Hospital, New York, which he completed in 1923 He was a staff physician of the Stephen B Van Duzee Hospital, Gouverneur, and was a member of the American Medical Association and the New York State and St. Lawrence County Medical Societies

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1 Walter, R. I, Goldberger, M A., and Lapid, L S New York State J Med. 48 1159 (May 15) 1948

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[Continued from page 550]

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Abraham Hellman Salzberg, M D, died February 4 of a heart ailment at the age of fifty-one Dr Salzberg, a Brooklyn gynecologist, was graduated from the University of Maryland School of Medicine in 1922 He was an associate gynecologist at Jewish Hospital of Brooklyn and was also a diplomate of the American Board of Obstetrics and Gynecology and a fellow of the American College of Surgeons He was a member of the American Medical Association, the Brooklyn Gynecological Society, and the New York State and Kings County Medical Societies

James S Unger, M.D, seventy-four-year-old specialist in diseases of the eye, died of a heart attack at his New York home on January 19 He was graduated from the College of Physicians and Surgeons, Columbia University, in 1896 He was a former assistant ophthalmic surgeon at the Manhattan Eye, Ear and Throat Hospital and had taught ophthalmology at the New York Post-Graduate Medical School and Hospital and at the Vanderbilt Clinic He was a member of the New York State and County Medical Societies and the American Medical Association

John Elmer Weeks, M D, nationally known ophthalmologist and professor emeritus at New York University, died on February 2 at the age of ninety-five Dr Weeks received his medical degree from the University of Michigan Medical School in 1881 and took postgraduate work at the University of Berlin He was first assistant in the department of ophthalmology of University Medical College from 1886 to 1888 and at the College of Physicians and Surgeons, Columbia University, from 1888 to 1890 He was also professor of ophthalmology and otology at Woman's Medical College and was surgeon at the New York Eye and Ear Infirmary from 1889 to 1920 During the first World War he served as a lieutenant in the Medical Reserve Corps From 1900 to 1920 he was professor of ophthalmology at the University and Bellevue Hospital Medical College, becoming professor emeritus in 1920

Dr Weeks was codiscoverer of the Koch-Weeks bacillus and was also famous for developing an operation for inserting an artificial eye into the eye socket He was the author of *Diseases of the Eye* and wrote more than sixty monographs on ophthalmology In 1929 he received the Ophthalmological Research Medal from the American Medical Association A past-president of the American Ophthalmological Society and the New York County Medical Society, Dr Weeks had been chairman of the ophthalmologic sections of the American Medical Association and the New York Academy of Medicine A fellow of the American College of Surgeons, he was also at one time a member of the American Academy of Ophthalmology and Otolaryngology

Abraham O Wilensky, M.D, of New York, died of a heart attack on February 4 at the age of sixty three Dr Wilensky, a fellow of the American College of Surgeons and a specialist in abdominal surgery, was the author of many works on osteomyelitis and other subjects He was a graduate of the College of Physicians and Surgeons, Columbia University, in 1907, and interned at Mount Sinai and Lying-In Hospitals He was attending surgeon at Mount Sinai, Bronx, and Beth David Hospitals, chief of the surgical service of the Brownsville and East New York Dispensary, and consulting surgeon at Crown Heights Hospital, Brooklyn He was a member of the American Association of Thoracic Surgery, the American Medical Association, the New York Academy of Medicine, and the New York State and County Medical Societies

Ward Young, M D, seventy-seven-year-old eye, ear, nose, and throat specialist of Gouverneur, died on January 26 of a heart ailment. A diplomate of the American Board of Otolaryngology, Dr Young received his medical degree from Queens University, Kingston, Ontario, Canada, in 1898 He took a course in postgraduate study at the Manhattan Eye, Ear, and Throat, Hospital, New York, which he completed in 1923 He was a staff physician of the Stephen B Van Duzee Hospital, Gouverneur, and was a member of the American Medical Association and the New York State and St Lawrence County Medical Societies

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MAKE YOUR PLANS NOW TO ATTEND THE 143RD ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, MAY 2 TO 6, 1949 HEADQUARTERS WILL BE THE HOTEL STATLER, BUFFALO

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HOSPITAL NEWS

Salaries of Hospital Employes Increase 10 Per Cent

SALARIES of hospital employes increased 10 per cent, and hours of work per week decreased in 1948 over 1947, according to the fourth annual nation-wide study of hospital salaries made by the American Hospital Association. The survey was conducted among 4,623 hospitals of all types except Federal institutions

The average starting salary of general-duty nurses is $204 per month, an increase of $49 over the 1945 total and $17 per month over the 1947 average Untrained women employes receive an average of $119, untrained men, $136 Clerks receive an average of $140, and practical nurses' average monthly pay is $145, as compared with $132 for 1947

The hospital work week has decreased one hour from 1947 to 1948 for all categories of personnel except clerks, for whom the forty-four-hour week still prevails The 1948 average for all personnel is forty-five and four-tenths hours per week. General-duty nurses work an average of forty-five hours, while untrained men and women and practical nurses have an average forty-six-hour week

The highest average number of days of paid vacation, sixteen per year, was received in 1948 by general-duty nurses Clerks and practical nurses had an average fourteen days of paid vacation Thirteen days was the average paid vacation for untrained men and women

Fewer hospitals furnished complete maintenance for employes in 1948 than in previous years Where maintenance represents a portion of the gross salaries reported, however, value of room and board is computed in relation to the Cost of Living Index of the United States Department of Labor, Bureau of Labor Statistics, on a computed scale for all sections

"Salaries and employe maintenance service, because they constitute over one half of total hospital expenditures, are of major concern to hospital administrators and to patients who pay for hospital care," said George Bugbee, executive director of the American Hospital Association

"This survey indicates that American hospitals have markedly bettered their personnel programs in the past year, with regard to salaries, hours of work, paid vacations, and related problems of effective personnel administration," Mr Bugbee stated "The result is constant improvement in hospital care offered to the American people"

Hospital Honors Fifty-Year Doctors

FIVE physicians who have been practicing medicine for fifty years were honored January 23 by the trustees of Lebanon Hospital, the Bronx, at a testimonial dinner at the Waldorf-Astoria Hotel, New York City

The doctors honored were Dr Henry Roth, surgeon, Dr Abraham J Rongy, gynecologist, Dr Sidney V Haas, pediatrician, Dr M D Lederman, ear, nose, and throat specialist, and Dr William Weinberger, specialist in internal medicine

L Victor Weil, president of the hospital, which is located at 1650 Grand Concourse, the Bronx, and is an affiliate of the Federation of Jewish Philanthropies of New York, presented each doctor with an engraved plaque "for his service to the community and to Lebanon Hospital."

Mount Sinai Starts $7,000,000 Building Project

TO MEET increasing demands for its services and to intensify its educational and research activities, Mount Sinai Hospital of New York has embarked on a $7,000,000 expansion program that will add a ten-story maternity pavilion and two research laboratories to its present 17-building plant, Alfred L. Rose, president of the institution, has announced

The three buildings soon to rise are

1 Maternity Pavilion—The first in the hospital's ninety-six-year existence will include an Institute of Biogenetics for education and research It will have 160 beds of which a large proportion will be for ward and semiprivate patients, although it will also accommodate private patients.

The maternity service will offer continuous care during pregnancy, childbirth, and the lying-in period and will train mothers in the handling of their babies. In addition, the institute will have facilities for clinical and biologic research into all phases of human reproduction and will serve as a teaching center

2 General Laboratory Building—A seven-story structure, it will front on Madison Avenue and extend a wing westward toward the new maternity building Equipped with a central system for piping oxygen, vacuum, and suction, it will have a floor space of over 50,000 square feet for routine laboratory examinations, research into new medical fields, and the broader training of physicians.

The hospital's chemistry, physics, and bacteriology departments will be moved to this building, and their present quarters will be renovated to be used exclusively by the pathology department.

3 Berg Institute of Research—This building will be limited to specialized investigative work by a small group of researchers Its eastern wall will abut the new laboratory building Its purpose is to provide seclusion for advanced research fellows while making available to them the facilities of a general laboratory and of an entire hospital The building will bear the name of Dr A A. Berg, a distinguished surgeon on the staff of the hospital, who donated the funds for its construction.

Now nearing its centennial, the hospital was founded in 1852, and its first quarters were a four-

[Continued on page 556]

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That is the suggestion of many of the country's leading specialists in cases of throat irritation.*

Many doctors have among their patients some who they believe smoke too much But the difficulty of persuading such smokers to cut down is familiar to everyone What better advice therefore than *"Change to Philip Morris"* the only leading cigarette proved definitely and measurably less irritating

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Laryngoscope Feb 1935 Vol XLV No 2 149 154 Laryngoscope Jan 1937 Vol XLVII No 1 59-60
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[Continued from page 554]

story building with 45 beds at 138 West 28th Street In 1862, the facilities were increased to care for wounded Federal soldiers in the Civil War Ten years later the hospital moved uptown to a building on Lexington Avenue from 66th to 67th Streets, with three and one-half stories and 120 beds

Mount Sinai appointed two women to its professional staff as early as 1872, granted a diploma in 1886 to the first woman in America to serve a formal internship, established separate medical and surgical services in 1877, opened one of the first nursing schools in 1881, converted a cloak room into its first laboratory in 1893, and in 1906 started one of the first medical social service departments.

The cornerstone of the present group of buildings was laid in 1901 the original ten buildings have a capacity of 456 beds The current expansion will give the hospital, which now serves almost 20,000 persons a year, a capacity of a thousand beds and a group of 20 buildings extending from 101st to 98th Streets and from Fifth to Madison Avenues

City Hospital Announces Ward Teaching Program

CITY Hospital, Welfare Island, New York, has announced a practical ward-teaching program under the direction of Dr Carl Reich, attending physician in charge of First Medicine Beginning on February 1, the program will continue for three months until May 1 and is free to members of the medical profession Inquiries may be made at City Hospital.

The program for each week is as follows Monday —psychosomatic medicine, peripheral vascular disease, metabolism, Tuesday—endocrinology, arthritis, cardiovascular and renal diseases, gastroenterology, Wednesday—diseases of respiratory system, diseases of liver, gastroenterology, pathologic physiology, Thursday—arthritis, allergy, tropical medicine, parasotology, and Friday—correlative roentgenology, hematology, cardiovascular and renal diseases

Staff members taking part in the teaching are Drs Seymour Fiske, Joseph Henry Hodas, Ernest Hammerschlag, Albert Hyman, Benjamin Jablons, Frank S Pierson, Cyril Solomon, and James Edlin, associates, Drs Leon Bader, Joseph Bandes, Harvey Brandon, Albert Cornell, Milton Drexler, Daniel H Eichner, Alfred Fritsch, Emil Granet, Milton M Greenberg, Sanford Goodfriend, John F Maloney, E Milton Sachs, Norman A. Samuels, Max Sterman, and Sydney Bassin, assistants, and Dr Arthur Forst.

NEWS NOTES

Conferences on neoplastic diseases are held at Montefiore Hospital, the Bronx, on the first and third Friday of each month, at 3 00 P M Speakers and topics for January were January 7—"Diagnosis and Management of Esophageal Lesions," Dr John Pool, associate attending surgeon, Memorial Hospital, and January 21—"Early Diagnosis and Treatment of Cancer of the Breast," Dr Cushman D Haagenson, assistant professor of surgery, College of Physicians and Surgeons, Columbia University

Dr William R Carman was elected president of the staff of Southside Hospital, Bay Shore, at the meeting held December 28 Other officers elected are Dr Myron L Hafer, vice-president, Dr Warren H Eller, secretary-treasurer, and Dr Sol Shlimbaum, member-at-large

Officers of the medical board of St Vincent's Hospital, Staten Island, were chosen at the annual meeting in January They are Dr Charles L Reigi, president, Dr John J Goller, vice-president, and Dr A. G Maratea, secretary

Dr Albert Accettola and Dr Alfred F Granatelli have been appointed to the outpatient department staff of the Staten Island Hospital, and Dr T H Li of Foochow, China, a graduate of Peiping Union Medical College, Peiping, China, has joined the intern staff of the Hospital.

Dr J J Golub, executive and medical director of the Hospital for Joint Diseases, New York City, for the past twenty years, has been elected executive vice-president of the Hospital.

Dr H W Whiteley, Jordan, was reappointed as chief of medicine of the Auburn City Hospital staff at the meeting of the board of trustees held December 23

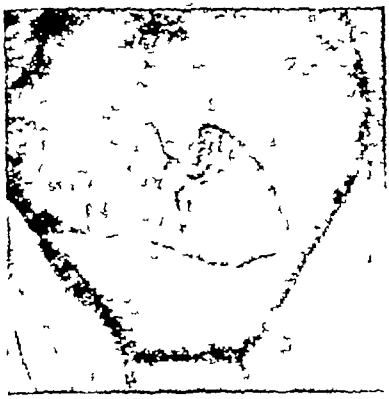
Appointment of Dr William Antopol as director of laboratories of Beth Israel Hospital, New York City, and as director of research of the Joseph and Helen Yeamans Levy Foundation has been announced by Mrs Charles H Silver, president of the Hospital and of the Foundation

French Hospital, New York City, has dedicated a bronze bust of the late Dr Arthur M Wright, director of surgery from 1931 until his retirement in 1946 Dr Wright died June 24, 1948. The bust was a gift of the Society of the Alumni of the French Hospital

Dr Marcus D Kogel, former general medical superintendent of the New York City Department of Hospitals, was sworn in by Mayor William O'Dwyer on January 28 as Commissioner of Hospitals, succeeding Dr Edward M Bernecker, retired.

[Continued on page 558]

These illustrations show how to treat sore throat effectively



Before instillation of Paredrine Sulfathiazole Suspension The patient is suffering from severe pharyngitis in this case a complication of pansinusitis Pus can be seen draining down the posterior pharyngeal wall



After intranasal instillation of the Su pension—5 drops in each nostril every t waking hours *Two hours have elapsed sin the last dose* The microcrystalline sulfath zole has formed a bacteriostatic film ov the infected area, and the inflammati has subsided

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Available in 1 fl oz (30 cc) and 12 fl oz (355 cc.) bottles

vasoconstriction in minutes

bacteriostasis for hours .

Paredrine-Sulfathiazole Suspension

[Continued from page 556]

Dr Robert Gordon Douglas has been appointed s professor of obstetrics and gynecology at Cornell Jniversity Medical College and gynecologist-in-hief at New York Hospital, effective July 1, 1949, ccording to an announcement made January 30 Jis predecessor, Dr Henricus J Stander, died May , 1948, since when Dr Douglas has been acting di-ector of the department

According to the annual report of the Ossining ospital, Ossining, for 1948, a total of 2,848 patients eceived 24,035 days of care, making an average of 3 patients under care each day, which is 84 per cent capacity

Dr Bruno J Tryka of Perry has been elected esident of the staff of the Wyoming County Com-unity Hospital, succeeding Dr R. T Williams of arsaw Other officers are Dr Charles O Wagen-os, Warsaw, vice-president, Dr Paul A Burge-n, secretary, Dr Clifford H Harville, Warsaw, ief of obstetric service, and Dr Willard J Chapin, erry, associate chief of obstetrics

Dr Frederick K. Gifford has been elected president of the Rome Hospital medical staff to succeed Dr Henry N Reid. Other staff officers are Dr Edward E Powers, vice-president, Dr Edward D Dake, secretary-treasurer, Dr Rudolph E Vanderveer, chairman, and Dr Lawrence S MacMillan and Dr Roy J Marshall, executive committee

Dr John H. Lawrence, director of Donner Laboratory of Medical Physics, University of California, Berkeley, California, delivered the William Henry Welch lectures on February 2 and 4 at Mount Sinai Hospital His subjects were "Tracer Studies with Artificial Radioactivity" and "Therapeutic Studies with Artificial Radioactivity"

Dr Mark A Freedman, formerly assistant director of the Bronx Hospital, New York, has been named associate director of Montefiore Hospital of New York Dr Freedman was executive officer of the Fifth General Hospital in England for three and a half years during the war

Dr Howard McC Snyder, former wartime inspector of medical operations for the War Department, has been appointed special consultant to Columbia University's New York State Hospital Study, Dr Eli Ginzberg, director of the study, has announced.

EW YORK CITY HEALTH IN 1948

In the preliminary report by Dr Harry S Mus-rd, New York City Commissioner of Health, the lowing items are of interest

There were 157,184 births and 81,793 deaths re-rded in New York City in 1948

Births in 1948 were about six per cent below the 47 total, but the number is higher than any year ner than 1947 More than half of all deaths in 48 were of persons over 62 years of age, giving mphasis to the problem of the diseases of later life.

The infant mortality rate for 1948 was the same as 1947, the lowest on record for New York City ore than 75 per cent of all the infant deaths oc-rred in the first month of life

Maternal mortality rate which began a steady de-ease 12 years ago is still declining, although more owly The 1948 rate of 1 0 per 1,000 live births as the lowest in the history of the City

The downward trend in diphtheria cases and eaths which has been going on for decades but hich was interrupted by a backwash from Euro-ean epidemics was resumed in 1948 There were wer diphtheria cases and deaths here in 1948 than any previous year

New low records were set in whooping cough and scarlet fever cases and deaths *Measles regularly* occur in alternating cycles of "low" followed by "high" years and 1948 was a "high" year with the disease reaching epidemic proportions in New York City However, the death rate was low

In the United States polio cases topped every year since 1916 Although there were more cases in 1948 than 1947 New York City escaped an epidemic. The case mortality rate was the lowest on record.

A new all-time low record was *set for typhoid* fever cases in New York City in 1948, fifty-one cases were reported, with four deaths.

The increase in the number of newly reported cases and decline in the pulmonary death rate seen here in 1948 is a trend noted *since 1945*

Pneumonia situation was practically unchanged The rate declined to a still lower level than in 1947

The decline in appendicitis deaths, which began in the late 1930's, continued in *1948 There were 248 deaths, an incidence of 3 1 per 100,000*

There were more deaths from cancer and deaths from diabetes in 1948 than ever before in the history of the City Deaths from diseases of the heart, arteries, kidneys, and apoplexy were higher than any year except 1943

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Because it lends itself so perfectly to the patient s acceptance and the physician s objective, Ovoferrin really bridges the gap between iron deficiency and effective iron therapy Physicians are invited to learn first hand of Ovoferrin advantages by the use of generous professional samples

℞ MAINTENANCE DOSAGE

For Adults and Children One teaspoonful 2 or 3 times a day in water or milk.

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MEDICAL NEWS

Ceremonies Honor First U S Woman Doctor

ONE HUNDRED years ago, on January 23, 1849, Elizabeth Blackwell, America's first woman doctor, was graduated from college Two commemorations of the event were held recently At the New York Infirmary, which was founded by Dr Blackwell four years after her graduation, five woman doctors received Elizabeth Blackwell Citations for distinguished achievement in medicine At Geneva, Hobart College, Dr Blackwell's alma mater, honored twelve other woman doctors with similar citations

Elizabeth Blackwell Centennial citations were conferred by Dr Alan W Brown, president of the Geneva colleges, at a special convocation on the following woman doctors

Dr Florence R. Sabin, Denver, Colorado, for medical research, Dr Alice Hamilton, Hadlyme, Connecticut, for industrial medicine, Dr Helen B Taussig, Baltimore, Maryland, for clinical medical research, Dr Martha May Eliot, Washington, D C , associate chief, U S Children's Bureau, for public health, Dr Gerty T Cori, Webster Groves, Missouri, for work in biochemistry and pharmacology, Dr Priscilla White, Boston, Massachusetts, for work in the field of diabetes, Dr Helen V McLean, Chicago, Illinois, for psychiatry, Dr Margaret D Craighill, Topeka, Kansas, Chief of Service, Medical Care of Women Veterans, Winter Veterans Administration Hospital (first woman commissioned as major in Army of United States) for military medicine, Dr Helen MacMurchy, C B E , Toronto, Canada, former chief of the Division of Child Welfare, Department of Health, for her work in the fields of child welfare and public health in Canada, Dr Elise S L'Esperance, New York, for her work in pathology and cancer prevention and leadership of women in medicine, Dr Helen M M Mackay, F R C P , London, England, internationally known pediatrician and first woman to be elected to the Fellowship of the Royal College of Physicians, and Dr Therese Bertrand Fontaine, Paris, France, first French woman medicin des hopitaux.

Elizabeth Blackwell Citations presented by the New York Infirmary were as follows Dr Lauretta Bender, senior psychologist in charge of the Children's service of Bellevue Hospital, Dr Connie Myers Guion, chief of the medical clinic, outpatient department, New York Hospital, Dr Anna Hubert, director of the department of surgery and gynecology of the New York Infirmary, and Dr May Wilson, chief of the Pediatric Cardiac Clinic of New York Hospital Dr Ada Chree Reid, chief of the cardiac clinic of the New York Infirmary and medical staff member of the Metropolitan Life Insurance Company, was unable to attend.

Geneva College, now Hobart, was the twenty-ninth college to which Dr Blackwell applied for admission to study medicine All the others turned her away The Geneva institution put it up to the students, and Dr Blackwell was admitted by popular vote

Born in Bristol, England, February 3, 1821, she came to the United States in August, 1832, lived for six years in New York and Jersey City, and at the age of seventeen went to Cincinnati, Ohio She taught school in Asheville, North Carolina, and Charleston, South Carolina, in 1845 and 1846 to gain money for a medical education.

She founded the New York Infirmary for Women and Children in New York and the Woman's Medical College there In 1859 she gained the honor of being the first woman to be listed in the British Medical Register and in 1875 helped to found and taught at the first school of medicine for women in England She died at Hastings, England, *May 31*, 1910, and is buried at Kilmun, Argyllshire, Scotland

Army Surgeon General Announces Community Campaign

A PROGRAM to unite professional and civic support in every community behind a campaign to meet urgent manpower requirements of the Army Medical Department through volunteers has been announced

It involves setting up Professional Manpower Committees in communities and coordinating them with the existing Military Manpower Committees which are already helping the general recruiting campaign The medical program is part of the drive to obtain physicians, dentists, nurses, and other medical specialists in order to meet the needs for medical care of the services

The program was worked out by the Army Medical Department in cooperation with the U S Army and U S Air Force Recruiting Service. In communities, outstanding physicians, surgeons, dentists, and other leading medical specialists will be asked to serve on Professional Manpower Committees, which will be set up as subcommittees to the Military Manpower Committees which are already assisting the Recruiting Service The cooperation of existing Army Advisory Committees also will be sought, particularly in the larger cities

The plan for civilian aid to medical personnel procurement has been developed in consultation with the national societies representing the professional fields involved It will seek the help of local units of professional organizations and enlist the cooperation of local chapters of many veteran, civic and fraternal groups which have been helping the services in their recruiting campaigns

MEDICALLY SPEAKING

Medical Schools Offered to State—Two medical schools were offered as gifts to the newly created New York State University in a bid to have the State take over their facilities rather than build new medical colleges The offers, one from the Long Island College of Medicine and the other from Syracuse University Medical College, were made at an all-day hearing held January 10 by a committee on medical education centers of the State University's board of trustees, in New York City The University plans to build or take over a medical center in

[Continued on page 562]

Case History of an overweight streetcar-operator . . .

'Dexedrine' Sulfate—because it curbed appetite and lowered food intake—enabled even this extremely obese patient to lose weight easily and safely without the use (and risk) of such potentially dangerous drugs as thyroid.

Patient before treatment (age 53; height 5' 10½") weighed 352 pounds . . . was suffering from hypertension, nervousness and dyspnea . . . lived in fear of causing an accident while on duty. Overeating was the only demonstrable cause of his obesity.

Therapy 'Dexedrine' (15 mg. A C t i d)	Results	Weight	B P	Pulse
March, 1946	'Dexedrine' therapy begun	352	280/152	86
November, 1946	8th month of 'Dexedrine' therapy	269	160/84	86
January, 1948	22nd month of 'Dexedrine' therapy	234	158/84	86

In addition to the weight reduction of 118 pounds and the concurrent lowering of blood pressure, a remarkable improvement is reported in the patient's mood and outlook. Earlier nervousness and fears have vanished.

Dexedrine* Sulfate tablets and elixir .... the most effective drug for control of appetite in weight reduction.

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*T.M. Reg. U.S. Pat. Off for dextro-amphetamine sulfate, S.K.F

[Continued from page 560]

the Metropolitan area and another at least 100 miles upstate.

Appoint Consultant Experts—Thirty-three new members have been appointed by Surgeon General Leonard A. Scheele of the Public Health Service, Federal Security Agency, to serve as consultant experts in study sections of the National Institutes of Health at Bethesda, Maryland Members from New York State and their study sections are Malaria—Dr John M Henderson, Columbia University, School of Public Health, Public Health—Dr Donald Sheehan, New York University, and Sanitation—Dr Rolf Eliassen, New York University

Announce Course in Rehabilitation Methods—Announcement has been made of a special advanced course in rehabilitation methods for physical therapists to be conducted by the Institute of Rehabilitation and Physical Medicine of the New York University-Bellevue Medical Center in conjunction with New York University School of Education Instruction will be given under the supervision of Dr Howard A. Rusk, Dr George G Deaver, and Donald A Covalt, of the New York University College of Medicine The first course is from February 9 to March 22, and the second from April 4 to May 13 For details write Miss Edith Buchwald, director of the courses, Institute of Rehabilitation and Physical Medicine, 325 East 38th Street, New York 16

Ships Doctor for Army Transports—Positions as ships doctor are now available aboard Army transports which are carrying displaced persons from Europe to ports in countries such as Argentina, Brazil, Canada, Australia, etc Each trip is approximately two months long, and after each trip the physician may or may not sign up for the next one, depending upon his personal wishes There is no contract signed which makes it obligatory for the doctor to sail more than one voyage Requirements for the positions of ships doctor are graduation from a recognized medical college, completion of internship, and license to practice in any state in the United States, and American citizenship Salary is $5,400 per year plus maintenance, with thirty days vacation per year An extra sum of $2 50 per day is given as an area bonus while in foreign waters All interested in further details may telephone Mr Howard O Peacock, Gedney 9-5400, extension 978, or report to him in person any day, Monday through Friday, at the New York Port of Embarkation, 58th Street and First Avenue, Brooklyn

American Board of Ophthalmology—The American Board of Ophthalmology wishes to announce that it does not evaluate, approve, or disapprove any ophthalmic residency toward fulfilling the requirements for candidates for board examinations. Any candidate who qualifies for the board examination and completes the prerequisites as outlined in the booklet of information will be accepted A copy of this booklet can be obtained from the secretary, 56 Ivie Road, Cape Cottage, Maine.

New Departure Clinical Fellowship in Industrial Medicine—Under the joint sponsorship of the New Departure Division, General Motors Corporation, Bristol, Connecticut, and the Yale Institute of Occupational Medicine and Hygiene, utilizing medical teaching and hospital facilities in Bristol and New Haven and the cooperative assistance of the Bureau of Industrial Hygiene, Connecticut State Department of Health, a one-year clinical fellowship is offered to a qualified candidate who wishes to pursue a graduate course of instruction in occupational medicine Application forms for this fellowship, which will run from July 1, 1949, through June 30, 1950, may be obtained from the Institute, 310 Cedar Street, New Haven 11, Connecticut

Institute of Cancer Research—Establishment at the Columbia-Presbyterian Medical Center of an Institute of Cancer Research, in which outstanding cancer specialists from all fields of medicine will launch an over-all, integrated attack on malignant disease, was announced February 3 by Columbia University Dr William C Rappleye, dean of the Faculty of Medicine, declared that the new institute is being developed primarily to bring about an integration of the activities of the numerous medical sciences concerned with cancer research

Metropolitan Life Insurance Company Statistical Bulletin—Announcement has been made that the Statistical Bulletin, monthly publication of the Metropolitan Life Insurance Company, is available to physicians without charge Application should be made to the company at 1 Madison Avenue, New York 10, New York The Bulletin constitutes a noteworthy source of information in various fields which should be of interest to practitioners of medicine

MEETINGS

PAST

Brooklyn Urological Society

At the December meeting of the Brooklyn Urological Society the following physicians were elected to office Dr Lawrence L Lavalle, president, Dr Harold B Hermann, vice-president, and Dr Mark Fishberg, secretary-treasurer

New York Academy of Medicine

Dr William C Boyd, associate professor of biochemistry, Boston University School of Medicine, spoke on "Blood and Man" as the fourth Laity Lecture of the 1948–1949 series at the New York Academy of Medicine, on January 13 Dr Paul Reznikoff was presiding chairman.

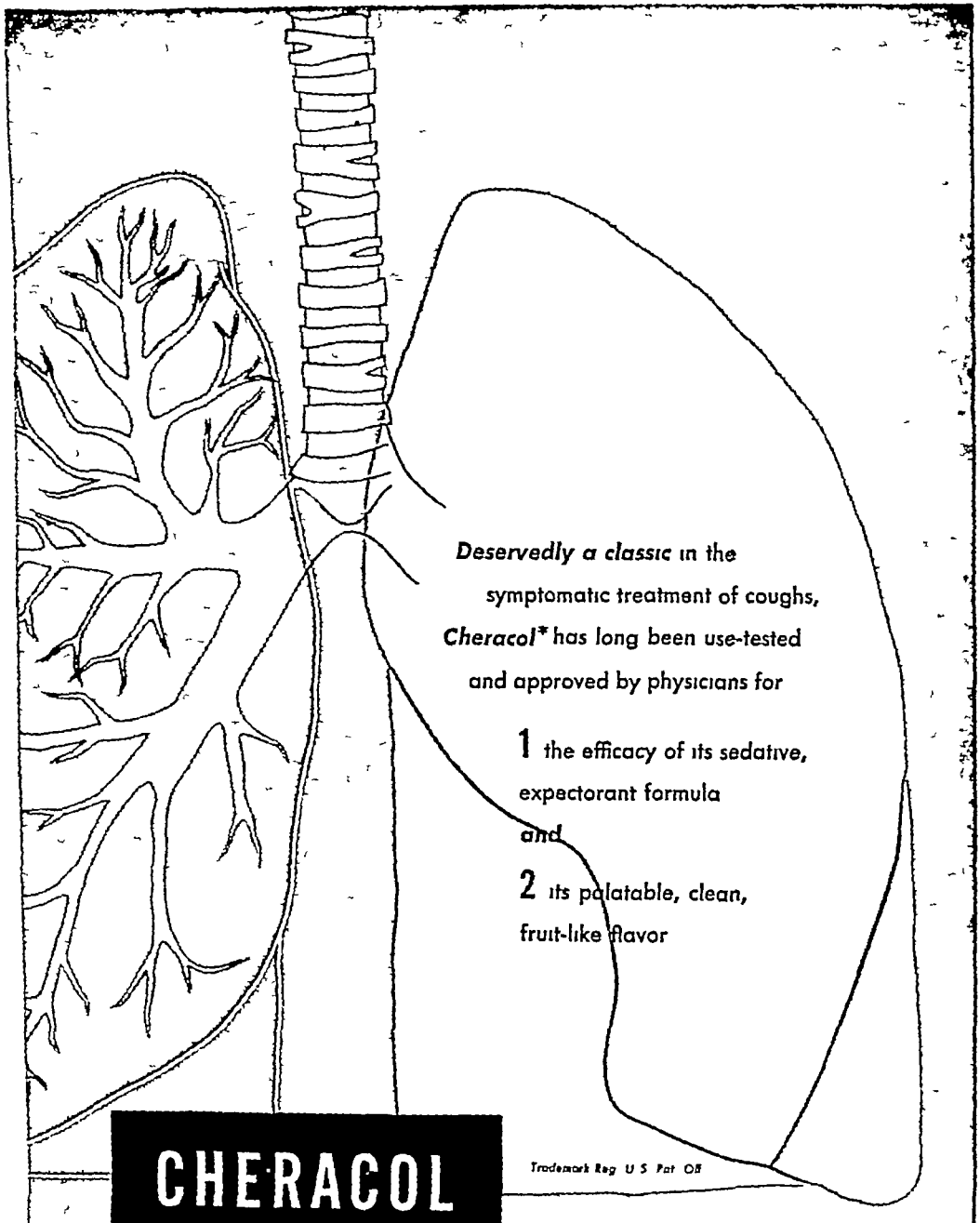
New York Academy of Medicine, Section on Microbiology

The Section on Microbiology of the New York Academy of Medicine met on January 19 for a program on insect pests and insecticides Papers were presented by the following Dr Arnold J Lehman, division of pharmacology, Food and Drug Administration, Washington, D C, "The Major Toxic Actions of Insecticides", Dr H L Haller, assistant, Agricultural Research Administration, U S Department of Agriculture, "Chemical Aspects of Some of the Newer Insecticides," and Dr E F Knipling, Bureau of Entomology and Plant Quarantine, Agricultural Research Administration, "Recent Advances in Medical and Veterinary Entomology"

Eastern New York Eye, Ear, Nose and Throat Association

At the meeting of the Eastern New York Eye, Ear, Nose and Throat Association, held February 3

[Continued on page 564]



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[Continued from page 562]

in Albany, Dr Harry Little of Hudson spoke on "Orthoptics in the Treatment of Eye Muscle Imbalance" Assisting was Dr Little's associate, Miss Elizabeth Rose, a diplomate of the Council of British Ophthalmologists

Saranac Lake Medical Society

Dr Howard A. Rusk, chairman of the department of rehabilitation and physical medicine, New York University College of Medicine, spoke on "Dynamic Therapeutics in Chronic Disease" at the meeting of the Saranac Lake Medical Society held February 9

Tuberculosis Sanatorium Conference of Metropolitan New York

The Tuberculosis Sanatorium Conference of Metropolitan New York held a clinical session on chronic pulmonary diseases February 9 at the Cornell University Medical College auditorium, New York City Dr Carl Muschenheim acted as chairman, and participants were Dr John N Hayes, medical director of Gabriels Sanatorium, "The Present Status of Pneumothorax", Dr Roger S Mitchell, associate medical director, Trudeau Sanatorium, "The Present Status of Phrenic Nerve Interruption in the Treatment of Pulmonary Tuberculosis," and Dr Ralph E Moyer, chief of the tuberculosis service, Veterans Administration Hospital, Oteen, North Carolina, "The Value of Pneumoperitoneum in the Treatment of Pulmonary Tuberculosis."

Society of Medical Jurisprudence

Dr Sigmund Epstein spoke on "Famous Wheel chair Invalids in American History" at the meeting of the Society of Medical Jurisprudence held February 14 at the New York Academy of Medicine In addition, Dr Henry H Kessler, orthopedic consultant for the Office of Rehabilitation, New Jersey, spoke on "Rehabilitation of the Amputee."

Geneva Academy of Medicine

A program of postgraduate instruction was presented at the meeting of the Geneva Academy of Medicine held February 17 in Geneva, with Dr Samuel Kleinberg, New York City, speaking on "Back Pain" The program was arranged by the Council Committee on Public Health and Education of the State Society, with the cooperation of the State Department of Health

FUTURE

New York University College of Medicine, Alumni Association

Panel discussions to aid the general practitioner are being held at the New York University-Bellevue Medical Center, under the sponsorship of the Alumni Association of the New York University College of Medicine All sessions will be held from 8 30 to 10 00 P M , and arrangements are under the direction of Dr William Goldring, chairman of the committee on science and education of the Alumni Association

The program is as follows

March 2—"Hypertension" Dr Herbert Chasis, moderator, and Dr Goldring, Dr William Hinton, and Dr Homer W Smith, speakers

March 30—"Peripheral Vascular Diseases" Dr Ludwig W Eichna, moderator, and Dr Wallace B Murphy, Dr Julius J Sachs, and Dr E M Papper, speakers

April 27—"Congenital Heart Disease" Dr C E de la Chapelle, moderator, and Dr Janet S Baldwin, Dr Charles E Kossmann, Dr Herbert C Maier, and Dr Henry K. Taylor, speakers

May 25—"Chemotherapy in Medicine and Surgery" Dr Colin MacLeod, moderator, and Dr Henry H Balch and Dr Joseph J Bunim, speakers

American Academy of General Practice

The first annual scientific assembly of the American Academy of General Practice will be held at the Netherland Plaza Hotel, Cincinnati, Ohio, on March 7, 8, and 9 Among the speakers who will present papers are Dr Walter C Alvarez, Rochester, Dr Howard A. Rusk, New York City, and Dr Herman G Weiskotten, Syracuse

New York Academy of Medicine, Section on Microbiology

A symposium dealing with "Certain Aspects of the Biology, Metabolism, Immunity, Diagnosis, and Treatment of the More Common Human Parasitic Infections" will be held at the New York Academy of Medicine, under the auspices of the Section on Microbiology, on Tuesday evening, March 15, and Wednesday afternoon and evening, March 16

Speakers and their topics will include Dr Paul Russell, Rockefeller Foundation, "The World Health Importance of Parasitic Diseases", Dr Clay Huff, National Naval Medical Center, "The Significance of New Findings in the Life Cycle of Malarial Parasites", Dr James T Culbertson, National Institute of Health, "Immunologic Mechanisms in Parasitic Infections", Dr Norman Stoll, Rockefeller Institute, "Diagnosis of Intestinal Helminths and Protozoa", Dr William Frye, Tulane University, New Orleans, "Studies on Growth and Metabolism of Endamoeba Histolytica", Dr T von Brand, National Institute of Health, "Physiology of the Blood Flagellates", Dr Quentin M Geiman, Harvard University, "Cultivation of Malarial Parasites", Dr Ralph McKee, Harvard University, "Biochemistry and Metabolism of Malarial Parasites", Dr Ernest Bueding, Western Reserve University, "Metabolism of Helminths", Dr Hamilton Anderson, University of California, "Pharmacologic Evaluation and Clinical Application of Amebicides", Dr Robert Coatney, National Institute of Health, "The World Status of Antimalarial Drugs", Dr Harold Brown, Columbia University, College of Physicians and Surgeons, "Therapy of Filariasis and the More Common Intestinal Helminths," and Dr Frederick Brady, National Institute of Health, "Chemotherapy of Schistosomiasis"

Glens Falls Academy of Medicine

Dr Bradley L Coley, assistant professor of clinical surgery, Cornell University Medical College, will speak on "Diagnosis and Treatment of Bone Tumors" at a meeting of the Glens Falls Academy of Medicine, to be held Thursday, March 17 The program, postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society with the State Department of Health, will begin at 8 30 P M in the Glens Falls Library

[Continued on page 566]

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[Continued from page 564]

Postgraduate Teaching Day on Heart Disease

A postgraduate teaching day for physicians on heart disease will be held March 23 at the Rochester Academy of Medicine, under the sponsorship of the American Heart Association and the Rheumatic Fever and Heart Committee of the Tuberculosis and Health Association of Rochester and Monroe County, in cooperation with the Monroe County Medical Society

All doctors, whether in practice or on the resident staffs of hospitals, and medical students are invited to attend free of charge Further details will be announced

Cornell University Medical College Alumni Association

The annual Alumni Day of the Cornell University Medical College Alumni Association will be held March 24 At the morning session, Dr David P Barr, professor of medicine, will preside, and speakers will include Dr S Bernard Wortis, professor of neurology and psychiatry, New York University College of Medicine, "Medical Mission to Poland—1948", Dr Irvine H Page, director of research, Cleveland Clinic, "The Nature of Arterial Hypertension", Dr Thomas Hale Ham, Thorndike Memorial Laboratory, "Diagnosis and Mechanism of Hemolytic Anemias," and presentation of the first annual award to the alumnus selected for his outstanding contribution to medicine, to Dr William S McCann, professor of medicine, Rochester University Medical College, who will speak on "Some Neglected Aspects of Cardiology"

A surgical program will be presented during the morning, also, under the direction of Dr Frank Glenn, professor of surgery, and the staff The operation schedule will be posted on the bulletin board

In the afternoon, open house will be held, giving alumni an opportunity to visit laboratories and demonstrations by those who are carrying on research, and for informal discussion These will include anatomy, Dr Joseph C Hinsey and associates, bacteriology and immunology, Dr James M Neill and associates, biochemistry, Dr Vincent du Vigneaud and associates, medicine, Dr David P Barr and associates, pathology, Dr John G Kidd and associates, pediatrics, Dr S Z Levine and associates, obstetrics, Dr R Gordon Douglas and associates, pharmacology, Dr McKeen Cattell, Dr Harry Gold, and associates, physiology, Dr Eugene F DuBois and associates, psychiatry, Dr Oskar Diethelm and associates, public health and preventive medicine, Dr W G Smillie and associates, radiology, Dr H N Temple and associates, and Memorial Hospital, Dr C P Rhoads, director, and associates.

The annual meeting of the Alumni Association will be held in the afternoon at 3 30 P M, with Dr W B Stubenbord, president, as chairman Speakers will include Dr Joseph C Hinsey, dean of Cornell University Medical College, Dr Stanhope Bayne-Jones, president of the board, New York Hospital-Cornell Medical College, and Dr Edmund E Day, president, Cornell University

The program will close with a dinner dance that night at the Waldorf Astoria Hotel

New York Academy of Medicine, Committee on Public Health Relations

The Hermann M Biggs Memorial Lecture which is held annually in Hosack Hall at the New York Academy of Medicine under the auspicies of the Committee on Public Health Relations will be delivered this year on Thursday, April 7, at 8 30 P M by Dr Howard A. Rusk, professor and chairman of the department of rehabilitation and physical medicine, New York University College of Medicine

The subject of the lecture will be "The Medical, Social, and Public Health Aspects of Rehabilitation" The lecture is open to the general public.

Geneva Academy of Medicine

Dr Harry Bakwin, associate professor of pediatrics, New York University College of Medicine, will speak on "Clinical Child Psychology" at a meeting of the Geneva Academy of Medicine to be held Thursday, April 21, at 8 30 P M at the Bellhurst Restaurant in Geneva. The program is postgraduate instruction arranged by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

International and Fourth American Congress on Obstetrics and Gynecology

The International and Fourth American Congress on Obstetrics and Gynecology will be held from May 14 to 19 at the Hotel Statler (formerly the Hotel Pennsylvania), New York City, under the sponsorship of the American Committee on Maternal Welfare Dr Howard C Taylor, Jr, of New York, is chairman of the general program committee, which is planning a series of morning sessions devoted to physiology of human reproduction, the pathology of human reproduction, social and economic problems, neoplastic disease of the female reproductive system, and obstetric and gynecologic procedures

The afternoons will be given over to meetings of various groups represented at the Congress, including nurses, nurse midwives, hospital administrators, educators, practicing physicians, investigators in special fields, and public health doctors and nurses.

PERSONALITIES

Awarded

Dr Lewis Cohen, New York City, a Baruch Fellowship in physical medicine for study with the Columbia University Faculty of Medicine Dr Henry E Meleney, Hermann M Biggs professor of preventive medicine, New York University-Bellevue Medical Center, a grant from the Commonwealth Fund to make a study of public health teaching needs at the American University of Beirut, Lebanon

Appointed

Dr Harold H. Berman, formerly assistant director of St Lawrence State Hospital, Ogdensburg, as director of Willowbrook State School, Staten Island

Dr John W Ferree, associate director of the National Health Council in New York, as director of the public health division of the American Heart Association Dr Cushman D Haagensen, coordinator of cancer teaching at the Columbia University College of Physicians and Surgeons, as director of Columbia University's new Institute of Cancer Research Dr Joseph Hirsh, former director of public information for the World Health Organization of the United Nations, as executive secretary of

[Continued on page 568]

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Dr Norman Jolliffe, authority in the field of nutrition, as director of the Bureau of Nutrition of the New York City Department of Health .Dr Carl W Lupo, as commander of the 362nd General Hospital, Organized Reserve Corps, Brooklyn Dr Harry Most, associate professor of preventive medicine, New York University College of Medicine, as one of a team of physicians designated by the Army Medical Department to visit the European theater for graduate medical training of physicians serving overseas Dr Samuel Wishik, former assistant director of the division of health services of the U S Children's Bureau in Washington, D C , as head of the New York City Health Department's recently reorganized Bureau for Mothers and Young Children

Elected

Dr Donald B Armstrong, Scarborough, second vice-president of the Metropolitan Life Insurance Company, as president of the New York Tuberculosis and Health Association .Dr Conrad Berens, New York City, president of the American Academy of Ophthalmology and Otolaryngology

Speakers

Dr Frank A. Calderone, director of technical liaison services of the New York office of WHO, and Dr James H Lade, director of the New York State Bureau of Venereal Disease Control, on January 19 at a conference of the New York Tuberculosis and Health Association Dr Robert Hannon, executive officer of the State Medical Society, on "The Development of the Science of Medicine" before the Albany County Chapter of the State Society of Professional Engineers, on January 17 .Dr Leland Hinsie, associate director of the State Psychiatric Institute, New York City, on "Psychotherapy in Relation to Psychosomatic Disorders" on January 15 at a meeting of the Albany Society for the Advancement of Psychosomatic Medicine Dr George T Pack, New York City, on February 2, at a meeting of the Harlem Surgical Society, on "The Endocrinology of Neoplastic Diseases"

New Offices

Dr Robert L Berger, formerly resident physician at the Northern Westchester Hospital, Mount Kisco, general practice in Chappaqua .Dr J Richard Kline, Navy veteran, practice of roentgenology in Buffalo, in association with Dr Norman Heilburn. Dr Winsor Chase Schmidt, general practice in Owego .Dr Casimir J Simcik, Army veteran, practice of surgery in Elmhurst .Dr I Robert Wood, practice of pediatrics in Plattsburg, in association with Dr S Mitchell

COUNTY NEWS

Albany County

Speakers at recent meetings of the Albany County Medical Society include

January 26—Dr Asher Winkelstein, Mt Sinai Hospital, New York City, on the subject, "Ulcerative Diseases of the Gastrointestinal Tract."

February 2—Miss Marjorie Shearon, Washington, D C , on the subject of socialized medicine

February 16—Dr George W Thorn, Hersey Professor of the Theory and Practice of Physic, Harvard Medical School, on the subject, "The Pituitary-Adrenal Relationship"

Announcement of the recent formation of an Albany Chapter of the New York State Academy of General Practice was made by Dr William G Richtmyer at the meeting of the Albany County Medical Society on January 26 Dr Richtmyer, of Albany, was elected temporary president and Dr John F Mosher of Coeymans temporary secretary-treasurer

Bronx County

Irving Ben Cooper, Justice, Court of Special Sessions, New York City, spoke on "Medical Problems in a Criminal Court" at a meeting of the Bronx County Medical Society on January 19

Under the auspices of the Bronx County Medical Society Dr Louis Schneider presented a talk on "Tuberculosis—Not Only a Lung Disease" on radio station WNYC on December 14 The program was under the auspices of the Bronx County Medical Society and the Bronx Tuberculosis and Health Committee

Broome County

According to figures released by the Cancer Committee of Broome County, examinations at Cancer Prevention and Detection Centers at Wilson Memorial, City, and Ideal Hospitals numbered 854. The centers, established under a program sponsored by the American Cancer Society, the American College of Surgeons, the Broome County Medical Society, and the Health Association of Broome County, have been in operation for one year

The annual election meeting of the Broome County Medical Society was held on December 14, and Dr Leonard Flannigan was elected president for the forthcoming year, Dr William Aten, vice-president, Dr R. S McKeeby, secretary, to be assisted by Dr Robert Bogdasarian, and Dr Worden Kane, treasurer, to be assisted by Dr Jeremiah Ryan Dr Mary Ross of Binghamton was presented with a scroll in honor of her being chosen by the society as the outstanding general practitioner of Broome County for 1948

At the February 12 meeting of the Broome County Medical Society, held jointly with the Broome County Bar Association, the speaker was Dr Theodore J Curphey, Hempstead, Long Island, vice-president of the New York State Medical Society

Chautauqua County

Through arrangement with the Chautauqua County Medical Society, annual examination of the more than 2,500 members of the County Home Bureau is sought. Support of the plan was announced by the County Medical Society after the December meeting, and a physicians' committee to investigate the plan headed by Dr H W Ingham, Jamestown, was appointed

Chemung County

A program of postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society for the joint meeting of the Chemung County Medical and Dental Societies held on February 11 in Elmira consisted of a talk given by Dr Gordon S Castiglano of the Cancer Control Center of the American Oncological Hospital, Philadelphia His topic was "What Can the Medical-Dental Professions Do About Cancer of the Mouth."

[Continued on page 570]

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[Continued from page 568]

Chenango County

Members of the Chenango County Medical Society elected Dr Newton Brachin of Greene as president at their 144th annual meeting on December 14 in Norwich. In addition, Dr H Lynn Wilson, Norwich, was named vice-president and Dr Norman Lyster, also of Norwich, secretary-treasurer

Clinton County

Dr A. Wilbur Duryee, attending physician at New York Post-Graduate Hospital, and chief of the Peripheral Vascular Clinic, addressed the Clinton County Medical Society at a meeting on January 20 in Plattsburg Dr Duryee's subject was the management of peripheral vascular diseases This postgraduate instruction was arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Cortland County

On December 17, at a meeting of the Cortland County Medical Society in Cortland, Dr Frederick N Marty of the Onondaga County Medical Society spoke on the formation of a Cortland County Red Cross blood bank.

"Thyroid Physiology and the Treatment of Thyrotoxicosis" was the subject of a program of postgraduate instruction at the January 21 meeting of the Cortland County Medical Society The speaker was Dr Walter F Rogers, Jr, instructor in medicine, Syracuse University College of Medicine, and the program was arranged by the Council Committee on Public Health and Education of the State Society in cooperation with the New York State Department of Health.

Dutchess County

At an informal dinner meeting of the Dutchess County Medical Society on February 9, Dr Stuart Cosgriff of the Columbia-Presbyterian Medical Center spoke on "Thromboembolic Disease and Anticoagulation Therapy"

Election of officers took place at the January 12 meeting of the Society with Dr Clifford A. Crispell, Poughkeepsie, being named president, Dr E Gordon MacKenzie, Millbrook, vice-president, Dr John F Rogers, Poughkeepsie, secretary-treasurer Dr C Stuart Welch, professor of surgery at Tufts Medical College, addressed the group His topic was "Biliary Surgery"

Fulton County

Dr Herbert Hageman, Gloversville, was elected president of the Fulton County Medical Society at its meeting on December 16 Others elected were Dr John Larabee, Johnstown, vice-president, Dr William Raymond, Johnstown, treasurer, and Dr Robert Warner, Gloversville, secretary

On February 17, Dr Stanley E Alderson, associate professor of surgery, Albany Medical College, addressed the group on the topic, "The Treatment of Common Fractures," a program of postgraduate instruction arranged by the Council Committee on Public Health and Education of the State Society in cooperation with the State Department of Health.

Herkimer County

The Herkimer County Medical Society held its annual meeting on December 14 in Herkimer Dr Nicholas D Lill, Dolgeville, was chosen president, as well as Dr Ernest Enzien, Frankfort, first vice-president, Dr W J MacDonald, Mohawk, second vice-president, Dr Harold E Golden, Herkimer, third vice-president, and Dr Robert Ashley, Little Falls, secretary-treasurer The Society also heard a talk by Dr Herbert Baukus, Buffalo, on the "National Physicians' Committee"

Jefferson County

"Disorders of the Thyroid Gland Diagnosis and Management, Use of Thiouracil" was discussed by Dr Albert J Ritzmann, assistant professor of clinical surgery, Long Island College of Medicine, at the January 13 meeting of the Jefferson County Medical Society at Watertown.

On February 10, Dr David Schwimmer, clinical instructor in medicine, New York Medical College, Flower and Fifth Avenue Hospitals, spoke on the topic, "The Interpretation of Liver Function Tests." Both this and the lecture at the January meeting were arranged by the State Medical Society in cooperation with the State Department of Health. Also heard at this meeting of the County Society was Dr L E Kling, associate professor of health education and head of the Division of Health Education, School of Public Health, Columbia University, speaking on "Community Health Is Your Responsibility"

Kings County

Speakers at the February 8 meeting of the Physicians Guild of Kings County included Dr Theodore Sanders, attending physician, Gouverneur and Beth David Hospitals, on "National Health Insurance" and Lawrence Sullivan, Chevy Chase, Maryland, on "The Case Against Socialized Medicine"

The Joint Committee of Postgraduate Education of the Long Island College of Medicine and the Medical Society of the County of Kings recently announced that the registration for courses offered by the Committee during 1948 was the highest ever recorded A total of 64 courses was given, and the lectures were attended by 1,094 doctors The committee is headed by Dr William C Meagher

The 17th Anniversary Inaugural Dinner-Dance was held by the Doctors Club of Brooklyn on January 22 The following officers were installed Dr D A. Meiselas, president, Dr Samuel George Schenck, vice-president, Dr Bernard Seligman, treasurer, Dr Mortimer M Kopp, secretary and Dr Charles F Fisher, historian. A scroll was presented to Dr Irwin E Siris for outstanding service.

At the January 18 meeting of the Kings County Medical Society Dr Irwin E. Siris presented his inaugural address, "The Present and the Future Problems of American Medicine" Dr John H Mulholland, professor of surgery, New York University College of Medicine, also spoke on "Pancreatitis—Its Diagnosis and Treatment."

Livingston County

Dr George Lynch of Avon was elected president of the Livingston County Medical Society at the annual meeting held December 17 Other officers elected were Dr Anderson Vickers, Mt. Morris, vice-president, and Dr Roger Hemphill, Mt. Morris, secretary-treasurer

[Continued on page 574]

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WOMAN'S AUXILIARY

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Executive Board Holds Midwinter Meeting

THE executive board of the Woman's Auxiliary to the Medical Society of the State of New York held its two-day midwinter meeting February 9 and 10 at the Hotel Biltmore, New York City, with 75 state officers, committee chairmen, county presidents, vice-presidents, and presidents-elect attending

The program opened with greetings by Mrs Edgar M Neptune, Syracuse, president, and Mrs John J Buettner, Syracuse, chairman of board meetings Reports were given by Mrs Hugh G Henry, Germantown, treasurer, and Mrs Neil M Paul, Jamesville, for Mrs Robert H Rowner, corresponding secretary Reports were received from the board of directors, chairmen of standing and special committees, district councilors and county presidents

Guest speaker at the opening session was Miss Mary B Rappaport, supervisor of school health education of the State Education Department, Albany, whose topic was "The Health Teaching Program in the Schools of New York State" At the dinner on February 9, Mrs. Maurice G Sheldon, Olean, gave a reading, and Mrs Neil M Paul presented "A Doctor's Wife Speaks"

At the luncheon following the closing session, Dr Frederic L Holcomb, chairman of the legislative committee of the State Society, and Dr Fenwick Beekman, chairman of the committee on the Woman's Auxiliary, addressed the group

Plans were discussed for the annual convention of the State Woman's Auxiliary, to be held May 2 to 4 at the Hotel Statler, Buffalo Mrs. Clarence J Durshordwe, Buffalo, is chairman of convention arrangements, and the Erie County Auxiliary will be hostess

COUNTY NEWS

Albany County

Dr Herman E Hilleboe, New York State Commissioner of Health, spoke on "Capitol District Public Health Problems" at a meeting of the Albany County Auxiliary, held January 26

At an open meeting held February 22, Mr Arthur Conrad, associate administrator of the National Physicians Committee for the Extension of Medical Service, spoke on "The Socialization of Professional and Educational Services—the Opening Wedge to State Socialism." Cosponsors of the meeting, which was open to the public, were the Auxiliary, the Albany County Medical Society, the Third District Dental Society, and the Albany Pharmaceutical Association

Cattaraugus County

Plans to award a nursing scholarship were made at the meeting of the Cattaraugus County Auxiliary, held January 13 Mrs R E Garvey is chairman of the committee to make the award Reports on Christmas activities were made and a donation was voted to St Francis Hospital Mrs William Goodlett, president, was in charge of the meeting

Erie County

A talk on "Receiving Relief from Abroad" was given by Dr Ralph W Lowe of the Holy Trinity Lutheran Church at the meeting of the Erie County Auxiliary, held January 25 in Buffalo A nominating committee was elected, which was to report at the February 28 meeting Mrs Joseph A Zavisca, chairman of the membership committee, reported that the Auxiliary membership had reached 534.

Plans were discussed for the annual convention of the State Auxiliary, May 2 to 4, in Buffalo, for which the Erie County Auxiliary will be hostess

Fulton County

Sample drugs, estimated in value at $400, were collected by members of the Fulton County Auxiliary and shipped overseas for foreign relief At the December meeting, the annual Christmas party was held at the home of the president, Mrs R. S Kunkel Biblical flannelgraph pictures of the Nativity were shown

Livingston County

Mrs Charles Newton of Geneseo was elected president of the Livingston County Auxiliary at the annual meeting held in December Other officers chosen are Mrs Vincent Bonafede, Sonyea, president-elect, Mrs Emerson Learn, Mount Morris, vice-president, Mrs Roger Hemphill, Mount Morris, secretary, and Mrs Foster Hamilton, Hemlock, treasurer

Onondaga County

A dinner dance for members of the Onondaga County Auxiliary and their husbands was held February 17 at the Hotel Syracuse, Syracuse Mrs William J Ryan was chairman of the committee, assisted by Mrs Francis Irving, Mrs Neil M Paul, Mrs Marcus Richards, Mrs Joseph Delmonico, and Mrs Richard Sullivan

Orange County

Mr Benjamin Hill, of the New York State Training School Annex, New Hampton, was the guest speaker at the December meeting of the Orange County Auxiliary, held at the home of Mrs. Walter A Schmitz in Middletown Mr Hill described his work with the boys sent to the school because of their behavior problems.

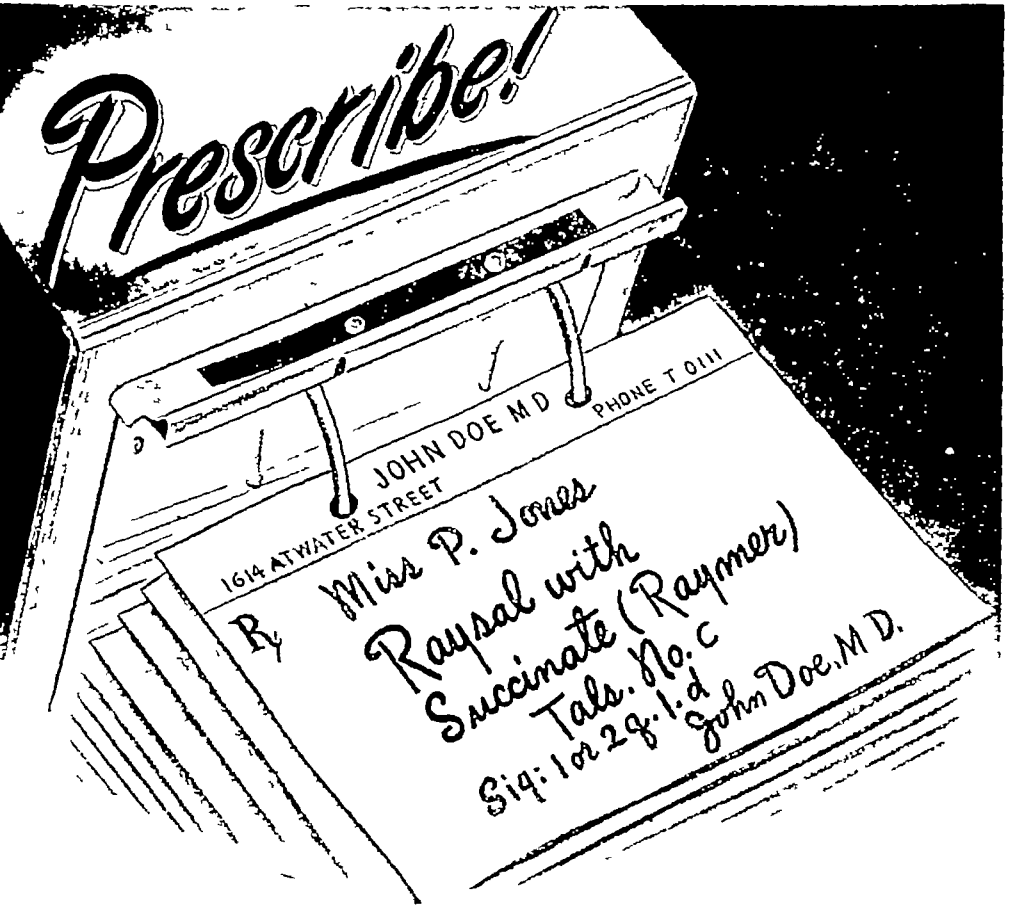
During the business session, delegates and alternates to the State Auxiliary convention were elected, and Mrs Harry F Pohlmann reported on her attendance at the organization meeting of the Orange County Heart Association

Plans for the annual meeting April 12 were discussed

Queens County

Dr Ernani D'Angelo spoke on "Psychiatric Problems of Adolescents" at the meeting of the Queens County Auxiliary held January 25 for members and

[Continued on page 574]



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[Continued from page 572]

guests Also at this meeting, Dr Jacob Werne, chairman of the Queens County Cancer Committee, spoke, asking all members to cooperate with the committee by volunteering their time and services in the information office

On March 22, a membership tea will be held at the Society building, with Mrs Sol Axelrad as chairman, and Mrs A W Pallone as assistant The past presidents will serve as hostesses

Schenectady County

Miss Mary Hill Landsrath, executive director of the Young Women's Christian Association, spoke on "The YWCA and Our Community" at the meeting of the Schenectady County Auxiliary held January 25 at the Mohawk Golf Club Mrs Herman Galster, public relations chairman, was in charge of the program, and Mrs Gomer Richards, Auxiliary president, presided

On December 14, 1948, the Auxiliary held a silver tea for the benefit of the nursing scholarship fund, at the home of Mrs James E Fish, Schenectady Mrs Donald Nitchman was chairman

Seneca County

Plans for programs for future meetings were made at the meeting of the Seneca County Auxiliary held January 27 in Hayts Corners, following a joint dinner meeting with the Seneca County Medical Society Mrs Robert Gibbs presided at the Auxiliary meeting

Tompkins County

Dr Earl A. Bates spoke on "Present Status of Planning for the New Hospital" at the meeting of the Tompkins County Medical Society held in January in Ithaca. Hostesses were Mrs George McCauley, chairman, Mrs Norman S Moore, Mrs Philip E Robinson, and Mrs Seymour Hominghouse

Westchester County

Members of the Westchester County Auxiliary heard Dr Louis H Bauer, secretary of the World Medical Association and immediate past president of the Medical Society of the State of New York, discuss "Private Enterprise or Government in Medicine" at a luncheon meeting January 14 in White Plains

Dr Bauer was introduced by Mrs. Reginald A Higgons, Port Chester, chairman of the program committee Mrs Laurance D Redway, Ossining, president, presided at the meeting

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Medical News

[Continued from page 570]

Madison County

A program of postgraduate instruction arranged by the State Medical Society in cooperation with the New York State Department of Health will be presented on Thursday evenings at 8.30 P M at the Hotel Oneida, Oneida, for the Madison County Medical Society The speakers are as follows

February 17—"Sterility," Dr Ferdinand J Schoeneck, clinical instructor in gynecology, Syracuse University College of Medicine

February 24—"The Management of the Allergic Family," Dr William Woodin, instructor in medicine, Syracuse University College of Medicine

March 3—"Peripheral Vascular Disease—Diagnosis and Treatment," Dr Richard H Lyons, professor of medicine, Syracuse

March 10—"Problems of Physical Diagnosis," Dr Paul A. Bunn, associate professor of medicine, Syracuse

March 17—"The Diagnosis and Treatment of the Acute Abdomen," Dr Leon G Berman, clinical associate professor of surgery, Syracuse

March 24—"Recurrent Convulsions in Children," Dr Edward M Bridge, research professor of pediatrics, University of Buffalo School of Medicine

Monroe County

At a special meeting of the Monroe County Medical Society held January 4 at the Rochester Academy of Medicine, Joe V Lovett, of Chicago, National Physicians' Committee, and Dr Joseph V Lawrence, of Washington, director of the Council on Medical Service of the American Medical Association, discussed compulsory health insurance

Montgomery County

Officers elected at the annual meeting of the Montgomery County Medical Society on December 16 include the following Dr R. R. Violyn, president, Dr A. A. Kindar, vice-president Dr Joseph M Rupsis, secretary, and Dr Harry Lebman, treasurer Speakers at the meeting were Dr John Heslin and Dr William Howard, both of Albany, who talked on the Association of American Physicians and Surgeons.

Nassau County

"Psychosomatic Problems in General Practice" is the topic of a seminar to be given by the Nassau Neuropsychiatric Society for the Nassau County Medical Society Meetings will be held on Thursdays at 4 00 P M in the auditorium of the Nassau Hospital, Mineola. The first lecture will be presented on March 10

The Nassau County Medical Society met on January 25 in Garden City, Long Island Dr Louis H Bauer, secretary-general of the World Medical Association, was the speaker

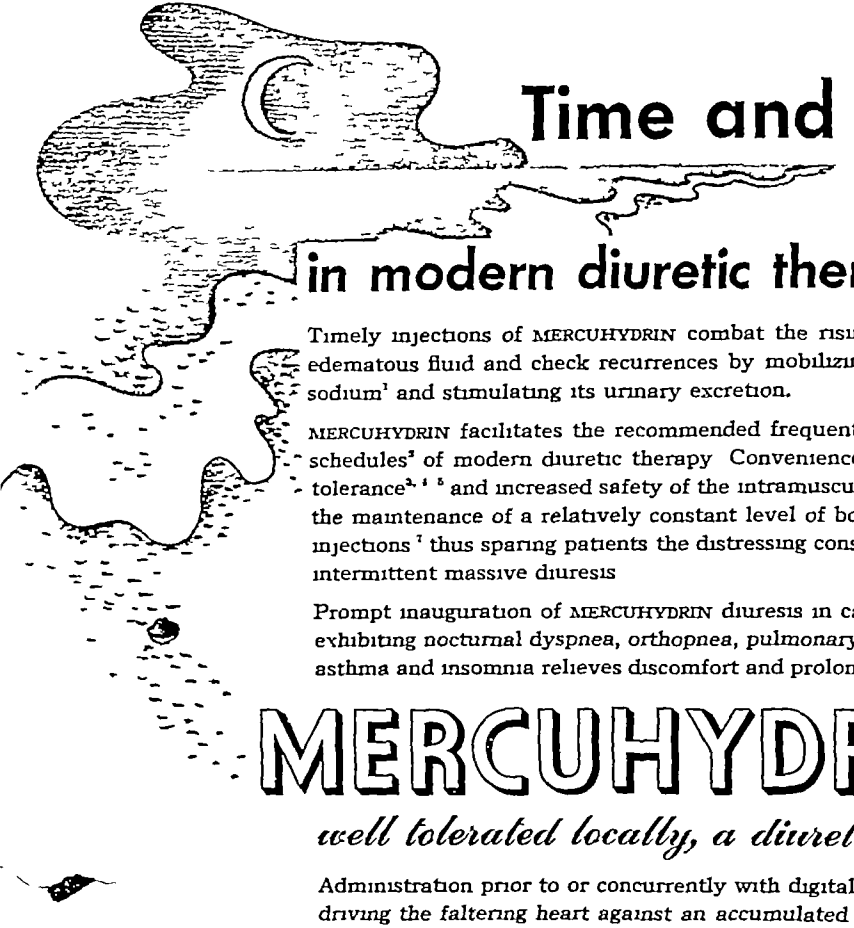
Niagara County

Mr Edward J Mooradian of the Bureau of Internal Revenue spoke on "Federal Revenue Act 1948" at the February 8 meeting of the Medical Society of the County of Niagara

Westchester County

Dr Leo M Taran, medical director of St Francis Sanatorium for Cardiac Children, spoke at the January 18 meeting of the Westchester County Medical Society His topic was "The Diagnosis and Treatment of Acute Rheumatic Heart Disease in Children."

The February 15 meeting of the Society included a talk on "A New Concept in Relation to Therapy in Degenerative Vascular Disease in the Diabetic," given by Dr George E. Anderson, Long Island College of Medicine, and secretary of the American Diabetes Association



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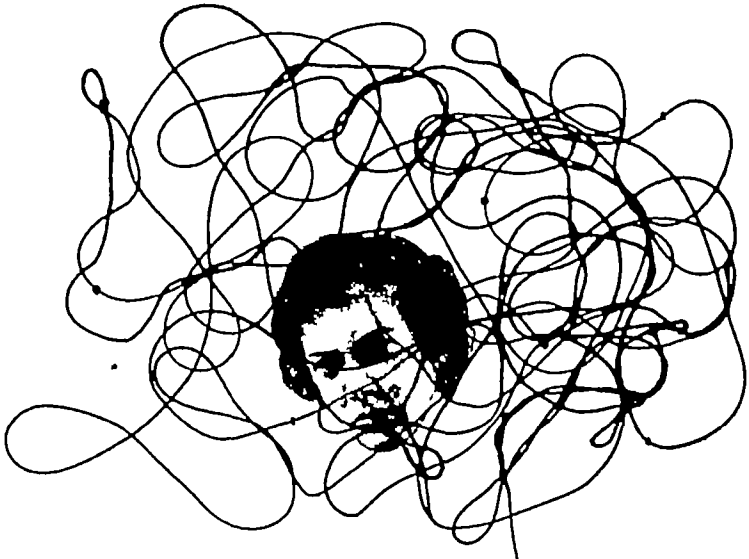
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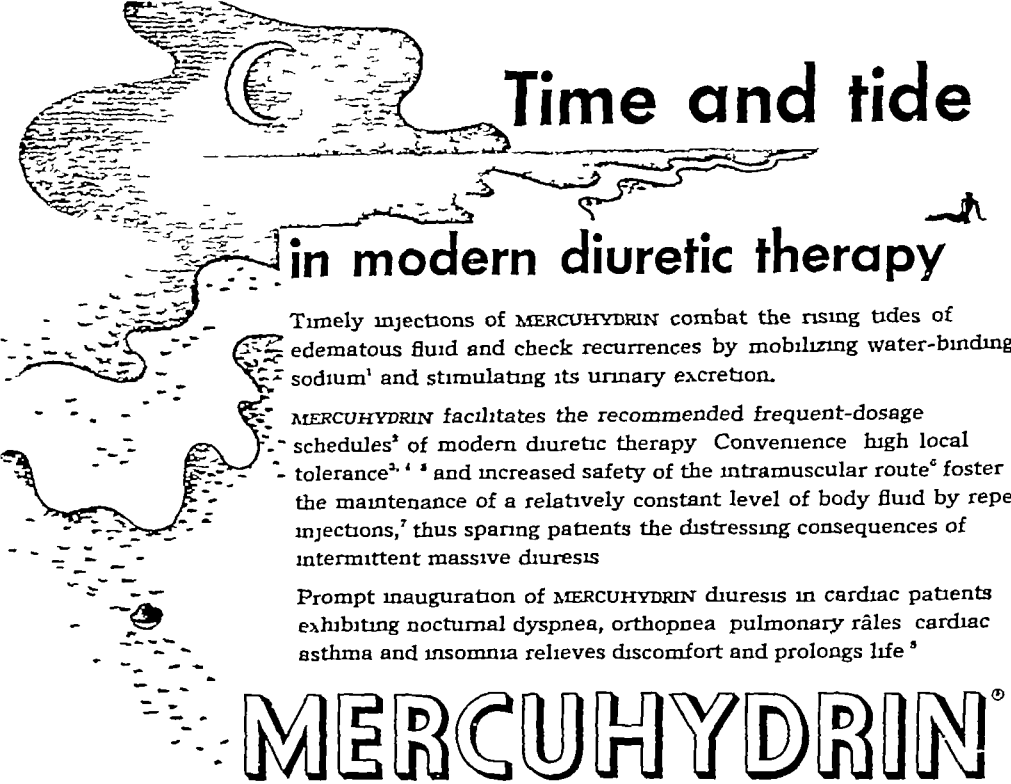


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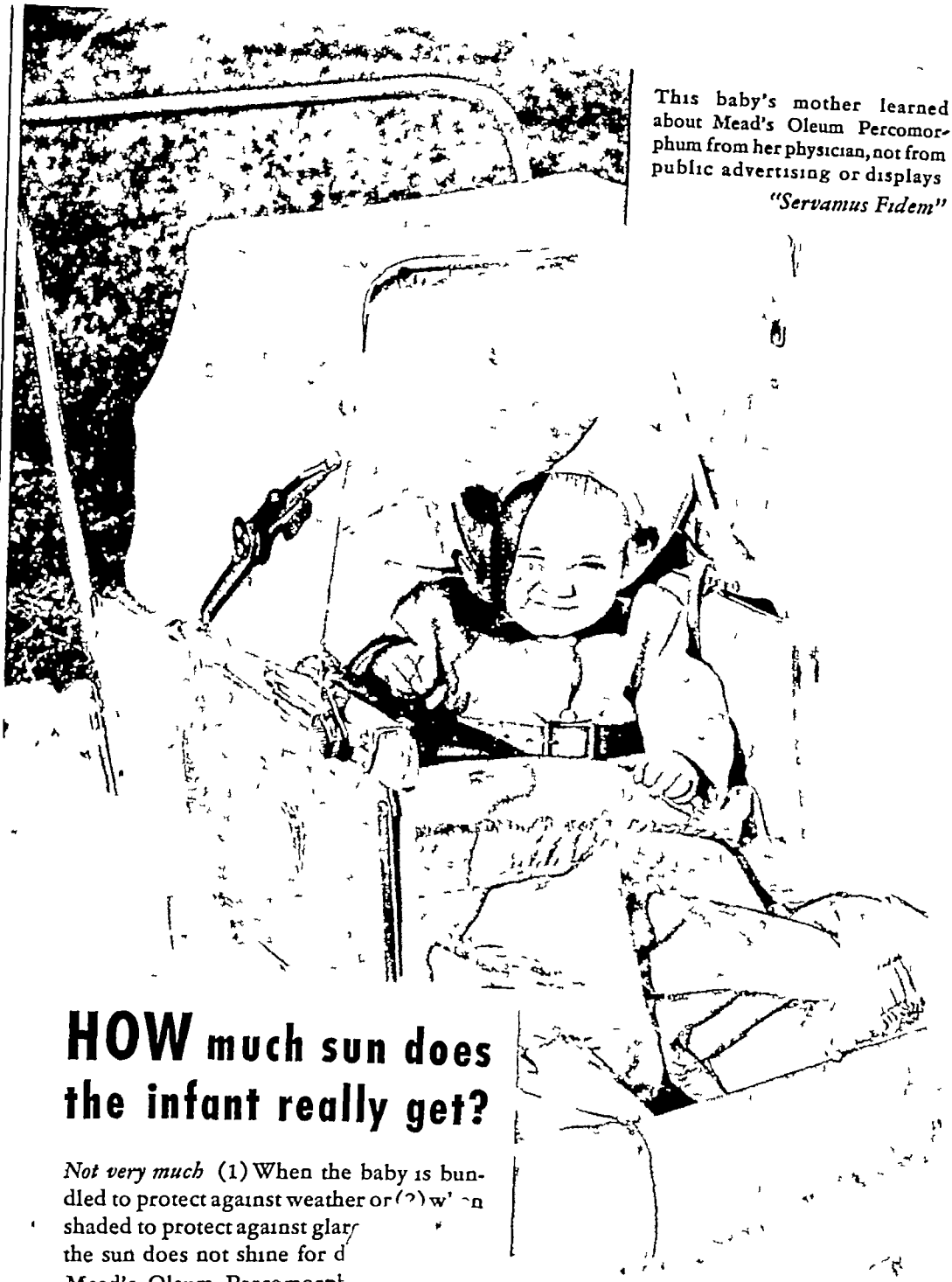
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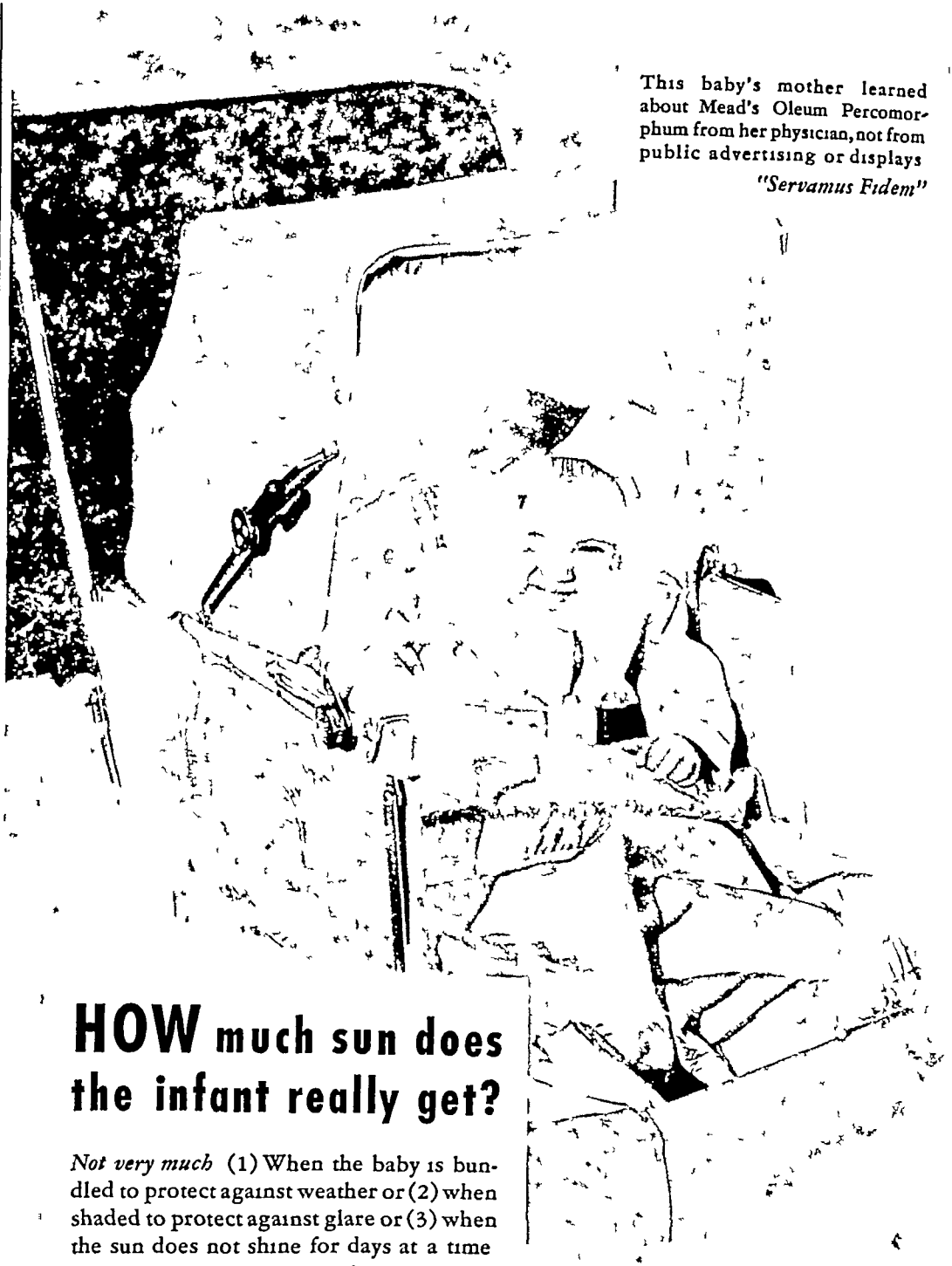
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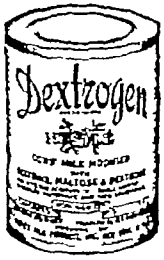
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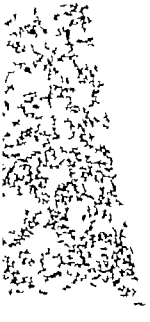
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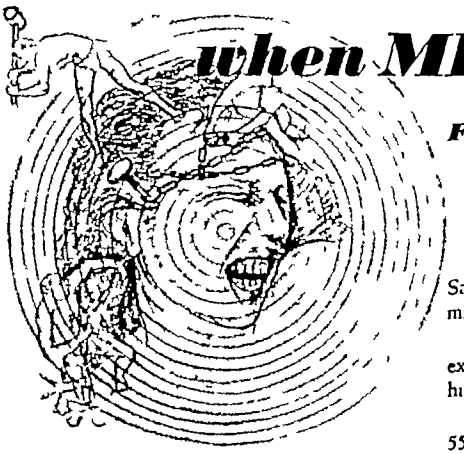
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1 Horton B T Ryan R E & Reynolds J L. Proc. Staff Meet Mayo Clinic 23 105 Mar 3 1948
2. Friedman A P N Y State Jl of Med (in press)
3 Ryan R E Postgradnate Medicine (in press)
4 Hansel F K Annals of Allergy (in press)

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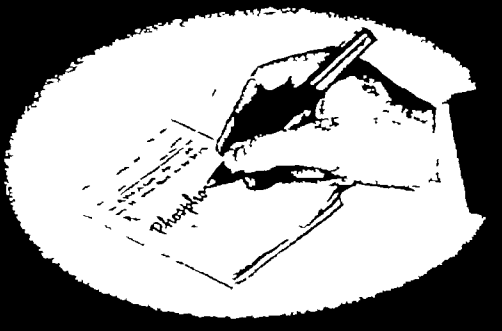
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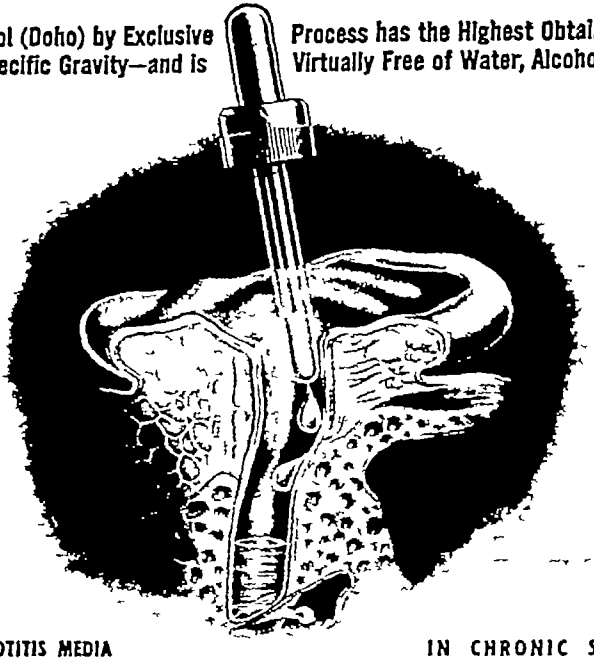
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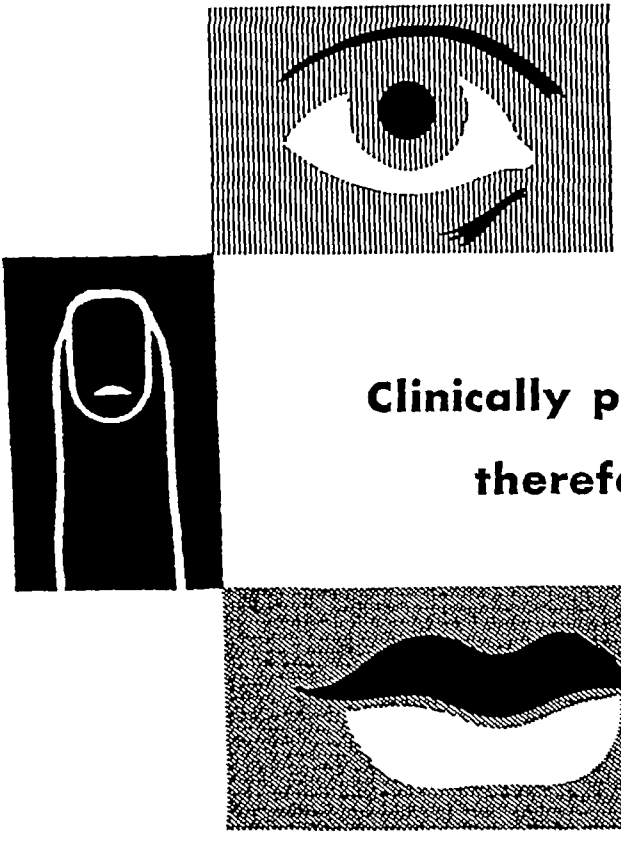
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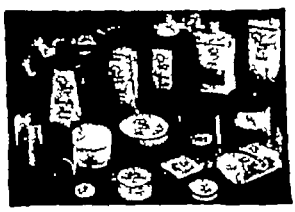
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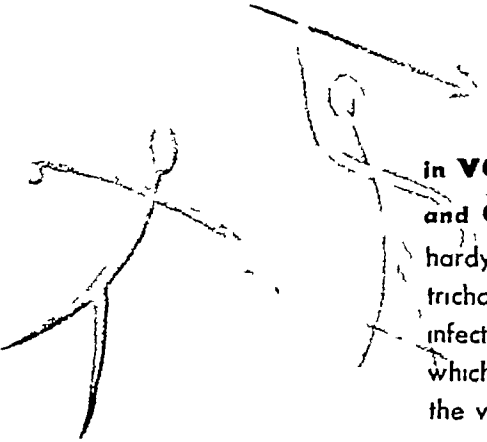
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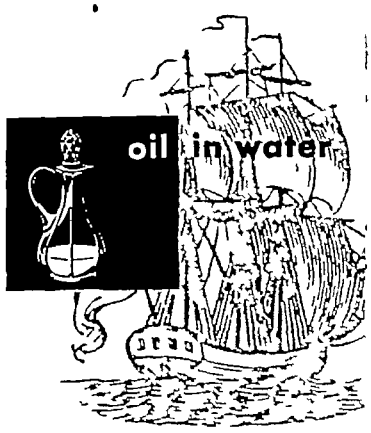
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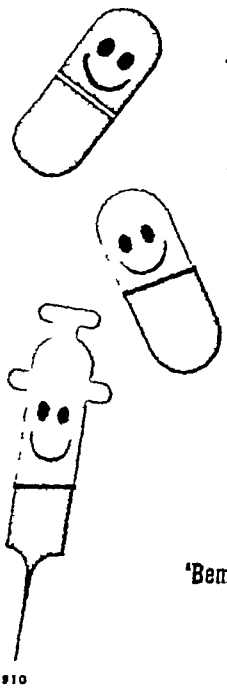
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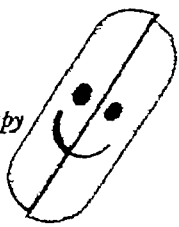
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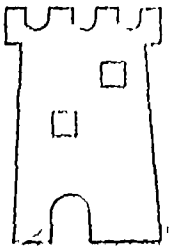
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Talso, P J Anemia in Pregnancy, J Ins Med, *4* 31-34 (Dec.-Jan -Feb) 1948-1949

"The encouraging results obtained with molybdenumized ferrous sulfate in the microcytic hypochromic group indicate a better prognosis in these conditions in the future with a resultant improvement in maternal health generally '

Chesley, R. F, and Annitto, J E Evaluation of Molybdenized Ferrous Sulfate in the Treatment of Hypochromic Anemia of Pregnancy, Bull Margaret Hague Maternity Hospital, *1* 68-75 (Sept) 1948

". molybdenized ferrous sulfate produced a substantially more rapid therapeutic response than ferrous sulfate, the difference in response being statistically significant Addition to ferrous sulfate of either liver-stomach extract or folic acid did not potentiate the action of the iron salt

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Dieckmann, W. J , and Priddle, H D Anemia of Pregnancy Treated with Molybdenum-Iron Complex, Amer J Obstet & Gynecol , (March) 1949.

Dieckmann and associates recently undertook an evaluation of molybdenized ferrous sulfate (Mol-Iron) in anemia of pregnancy—a relatively resistant type of anemia

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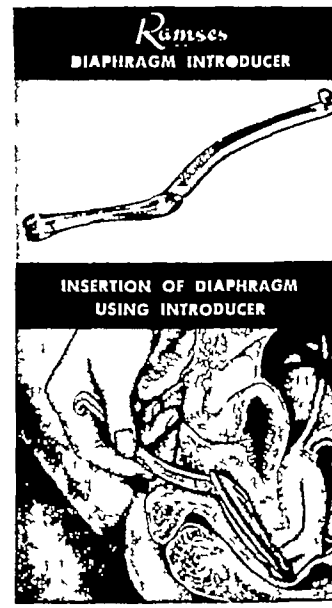
THE USE OF THE DIAPHRAGM INTRODUCER

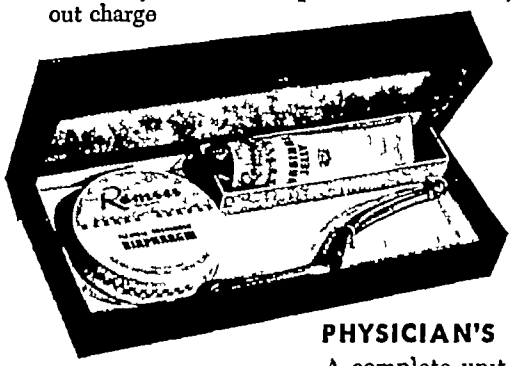
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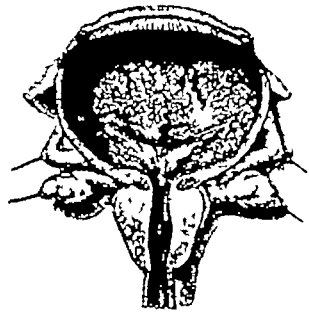


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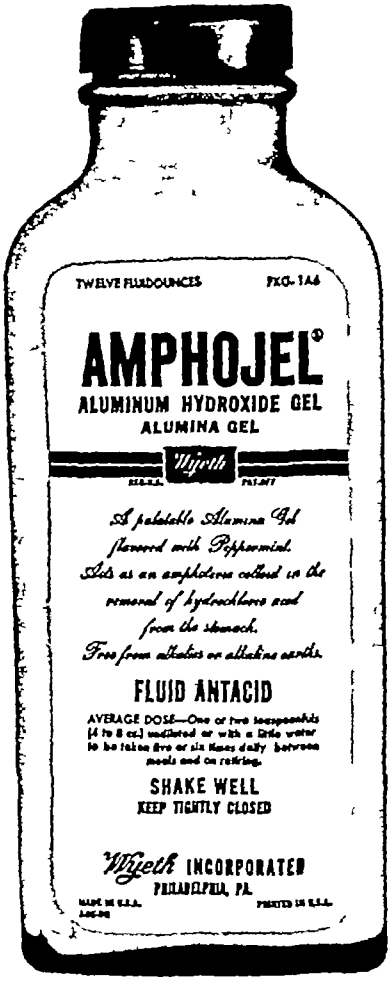
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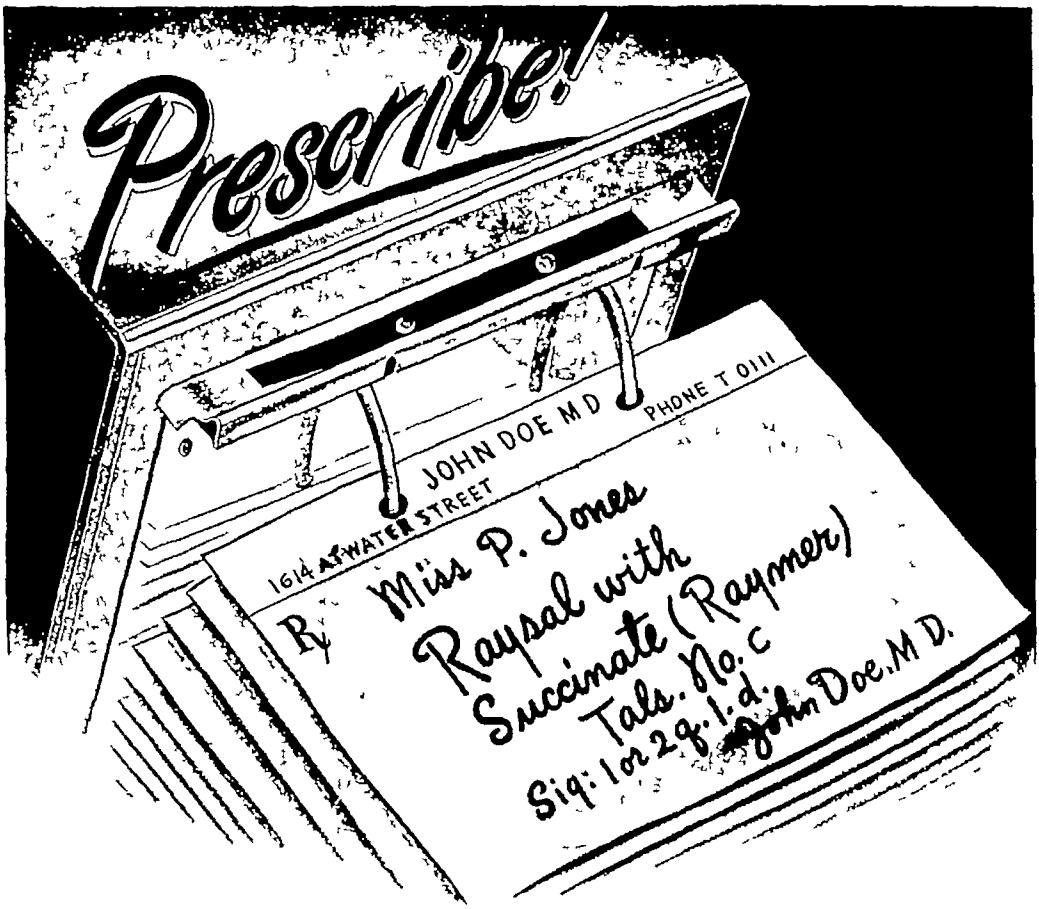
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*(3¾ gr)	0 25 Gm	with	(¼ gr)	15 mg

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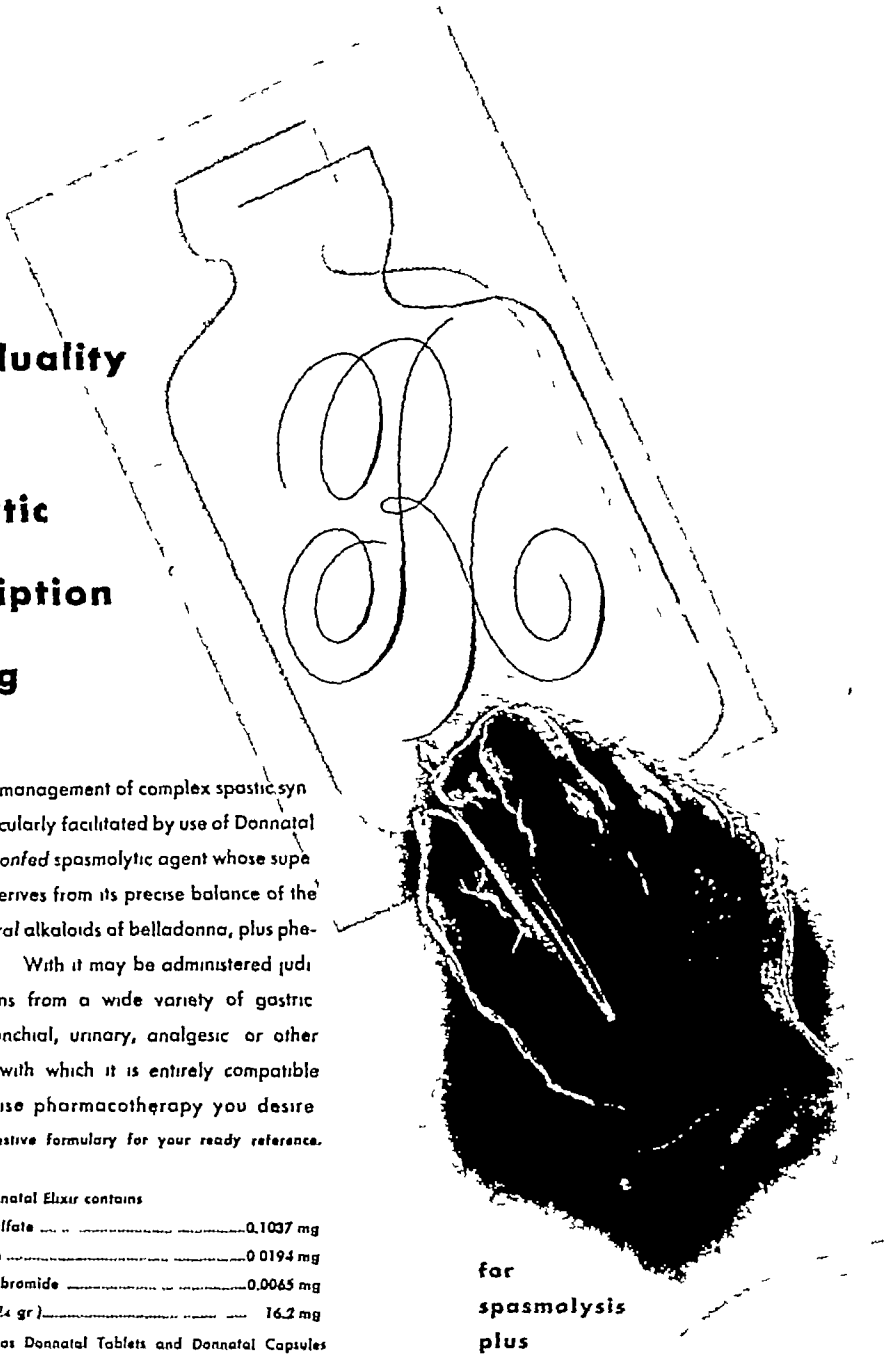
REFERENCES:
1 J Pediat. 32:1 (1948)
2. Am. J M Sc. 213 513 (1947)
3 J Pediat 32 119 (1948)
4 New England J Med. 236 817 (1947)
5 New York State J Med. 48:517 (1948)
6. Lancet 1 255 (1947)

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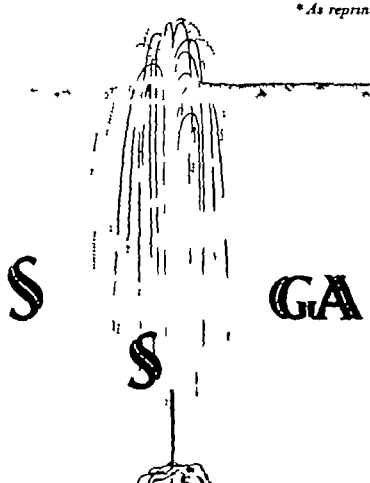
Classified according to the American Heart Association 44 were in Class IIA (activity slightly limited) and 63 in Class IIB (activity greatly limited)

Before beginning a regime each patient was subjected to a thorough physical examination together with all indicated laboratory procedures The average of the initial blood pressure readings made at this time was 168 95 The final average figure arrived at was 140-81, a difference of 28 mm of mercury in the systolic and 14 in the diastolic reading These readings were made after a rest period to obviate the influence of any recent activity

Symptomatic Change According to Age Groups

Age group	No Cases	Improvement		
		Moderate	Marked	None
40-50	11	10	0	1
50-60	41	32	5	4
60-70	34	22	8	4
70-80	18	16	0	2
80-	3	3	0	0
	107	83	13	11

**As reprinted from the New York State Journal of Medicine, 35 715 (July 15) 1935*



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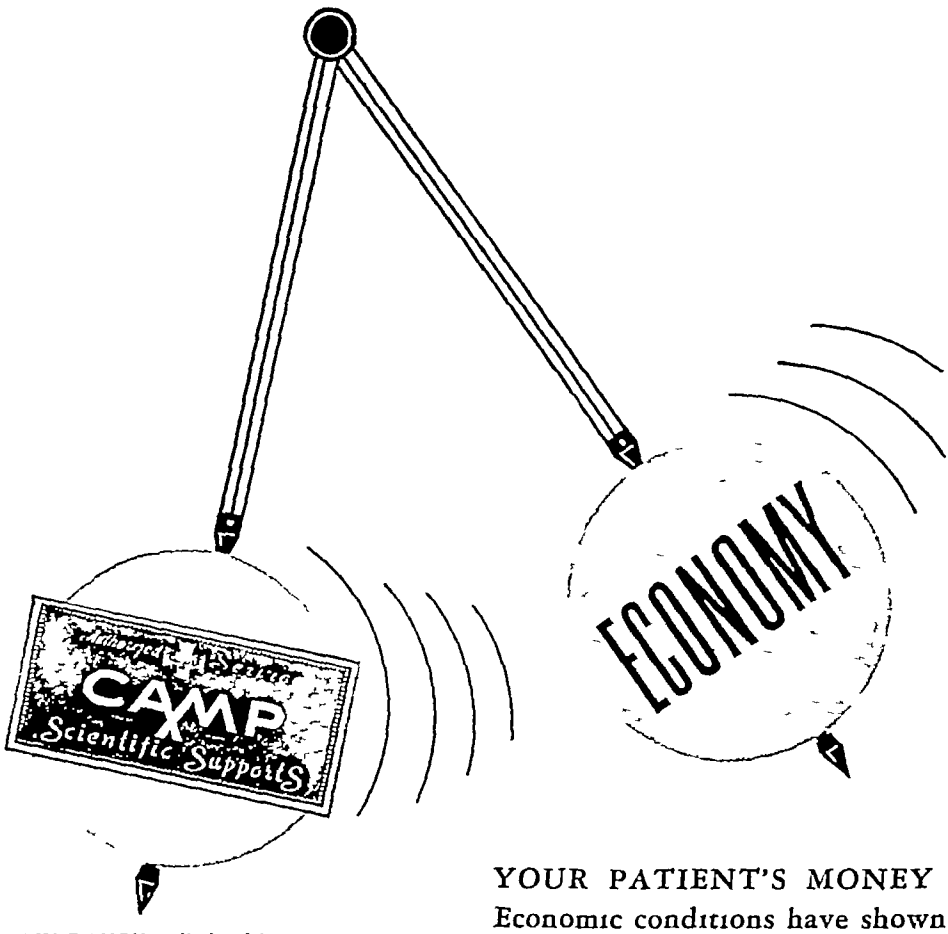
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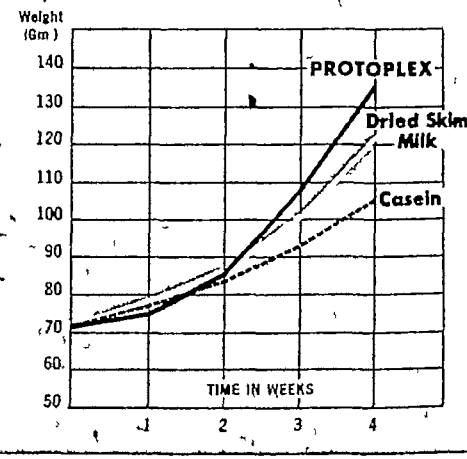
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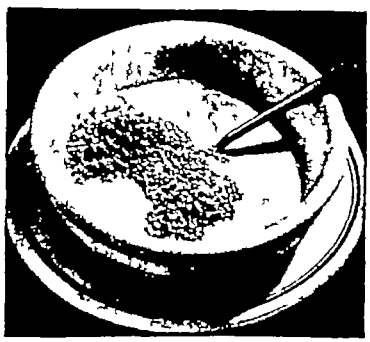
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(1) Kramer, J. C., Jr., Kibler, D. V., and Bell, F. B.: "Neutralization of gastric acidity with basic aluminum aminoacetate." J. Pharmacol. & Exper. Therap. LXXXIII: 241 (Oct.) 1944

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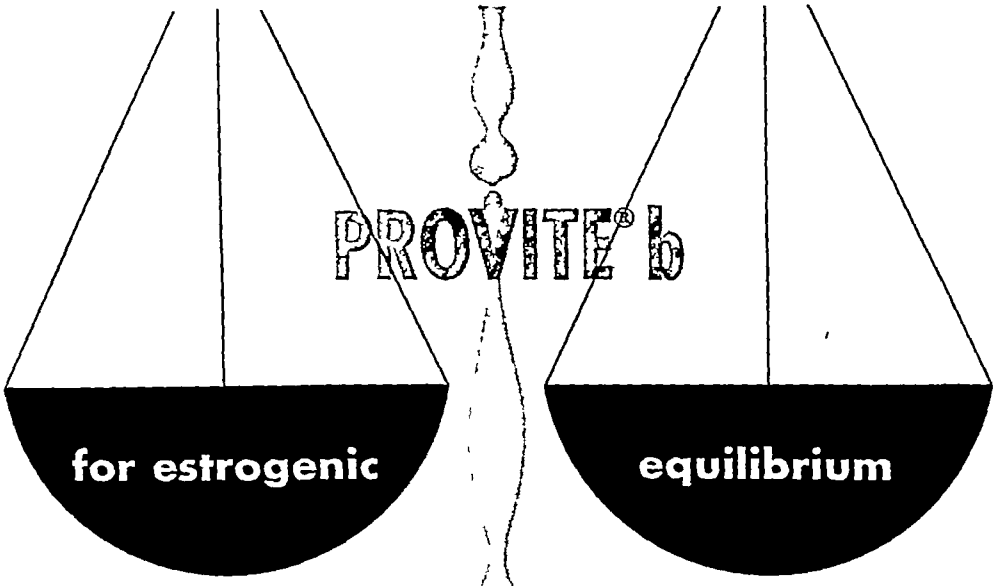
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1 Scudi, J V, and Duca, C J J Urol. (Feb) 1949 2. Carroll, G, and Allen, H N J Urol. 55 674 (1946) 3 Butt, A. J J Florida M. A. 35 430 (1949)

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Editorials

More of the Same Advice Needed

The *Daily News*, New York's picture newspaper, reaches many citizens who never see a medical journal. It carries information to many who probably have seldom heard of the A.M.A. and are even less aware of the Medical Society of the State of New York What the *Daily News* prints about the subject of state medicine, or compulsory health insurance, or whatever, rests on the evaluation by its editors of the newsworthiness of the topic itself

On Saturday, March 12, 1949, appeared the editorial which we reprint below

DR. JOHN BULL

With reference to the Truman Administration's crusade for state medicine, politely called compulsory health insurance, we lift the following paragraphs from a recent report in the Cleveland *Plain Dealer* by a Mr Philip W Porter

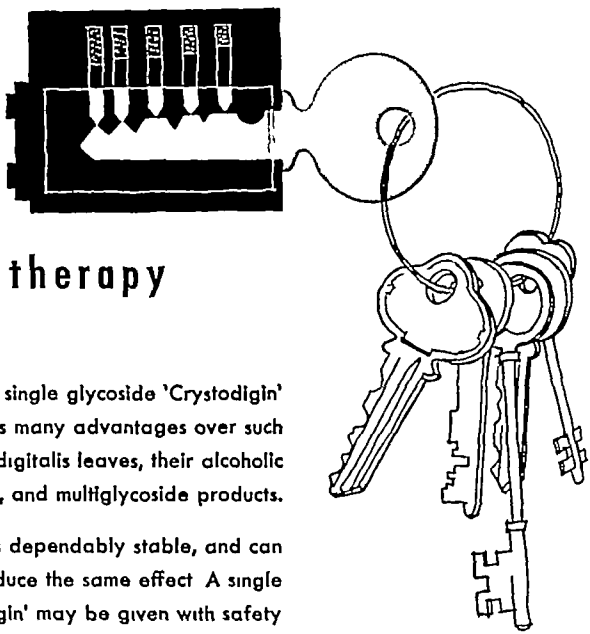
"You don't have to listen to the perfectly legitimate objections of doctors and dentists (to state medicine) , all you have to do is to see the way it is working out in Great Britain

"I lived over there and saw it function Thank the Lord, I didn't have to depend on it, for I could go to competent Army doctors But I had plenty of friends who were forced to depend on it, for they had deductions for it taken out of their slim pay and couldn't afford to hire Harley Street specialists

"If what they got under socialized medicine was medical care and competent treatment of illness and disease, then I'm a Tanganyikan rhinoceros The panel doctor's office was an assembly line of 50 patients crowded into the time and space it should have taken him to handle 10 He gave each of them scarcely more than a look and a promise—and often they got the wrong medicine in the rat race Some of the offices were even unclean and some of the doctors were smelling high of drink, but what did they care? Their fees were guaranteed by the Government at so much a head

"And the poor patient, if dissatisfied, couldn't change doctors once he had signed up, without the permission of the doctor he didn't like or without three months for a government board to make up its mind Meanwhile, he could make a choice between paying a competent specialist a stiff fee or dying slowly

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Hemorrhage

Acute deficits develop rapidly with hemorrhage If plasma volume drops suddenly, shock ensues It has been shown that what was formerly thought to be irreversible hemorrhage shock can be reversible in 50 per cent of dogs bled to this state if the accompanying acidosis is treated with sodium lactate or sodium bicarbonate with glucose in addition to blood replacement [8] Hemorrhagic patients react poorly to saline solution because of acute hypoproteinemia of the blood and the frequent inability of the kidney to excrete sodium when plasma volume is low Whole blood is the answer, and, if surgery is required, large amounts of it (2 to 4 L) should be given preoperatively [3] Where therapy is carefully employed, procedures such as gastrectomy for a bleeding ulcer have no higher mortality than in nonbleeders [9] It is to patients with hemorrhage and substantial blood loss at operation that blood banks make their greatest life-saving contributions As the problem of supplying needed blood becomes more evident, those responsible for the supply become more and more impressed with the futility of the growing practice of using blood for routine surgical patients whose blood loss at operation is insignificant The negative nitrogen balance always observed on postoperative patients is an unimportant factor in patients with good preoperative nutrition This routine nitrogen loss cannot be prevented even by intensive therapy First claim on blood banks is justified for patients who are hemorrhaging, in shock, or who lose considerable blood from surgical procedures Protein hydrolysates can be substituted very effectively for chronic hypoproteinemia states where the urgency of protein replacement is not great

Intestinal Fistulas

In patients with gastric fistulas, those with chronic vomiting and patients in whom there is gastric intubation, the loss of chloride exceeds that of sodium Nevertheless, the loss is serious and can lead to severe dehydration alkalosis Peters warns that the practice of giving patients food and water by mouth who have intubation tubes with suction high in the intestinal tract may lead to severe depletion of electrolytes [10] He recommends nothing by mouth and parenteral feeding as long as intubation tubes are present, but adds that if anything is given these patients by mouth, isotonic salt solution will cause the least loss of electrolytes Nondiabetic ketosis frequently occurs in young children following vomiting Replacement of electrolytes and water in a glucose solution will rapidly correct the severe clinical state As a rule isotonic saline will restore balance to cases of alkalosis

Lower intestinal fistulas cause excessive loss of sodium and lead patients to states of dehydration acidosis The same pattern can follow profuse diarrhea, where relatively more sodium than chloride is lost Here replacement by saline must be made cautiously If the kidney does not excrete chloride, accentuation of the acidosis may cause serious aggravation of the clinical state Sixth molar sodium r lactate is a good parenteral solution in acidosis [11] When this solution is injected, one half of the lactate ions is converted to liver glycogen, while the other half is oxidized to bicarbonate directly Thus both the antiketogenic effect of glycogen and the neutralizing effect of bicarbonate is obtained The sodium cations are released to neutralize accumulated anions Careful clinical notes of the total loss through fistulas are essential for the one who is charged with replacement therapy The hematocrit, protein, chloride, and carbon dioxide concentration may give no indication of the impending disaster [9]

Trauma and Shock

War experience has added emphasis to the long taught axiom that shock must be prevented if possible Newer understanding of the inability of the nephron to withstand anoxia from decreased renal blood flow, plus the evidence of a vasoconstrictor substance which appears to decrease renal blood flow as plasma volume recovers, has given impetus to investigation for better methods of aiding patients out of shock Of prime importance is every effort to maintain urinary flow [9] Most civilian patients reach medical aid before irreversible shock damage is present Quick, competent, and effective use of blood, plasma, and hypotonic fluids will usually restore plasma volume and urinary flow There can be no universal formula for the use of these fluids In

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Parenteral Nutrition, V—Clinical States of Salt, Water, and Protein Privation

In a previous issue, a comparison was made of the symptoms of the pure types of dehydration [1] Most clinical problems, however, involve losses of both water and electrolytes In addition, the physician often encounters in dehydrated patients, anemia, hypoproteinemia, and other indications of malnutrition It is the purpose here to discuss the more important clinical situations where electrolyte, water, hypoproteinemia, and changes in acid-base balance occur

Chronic Water Deficit

Chronic water privation is not uncommon and results from an inadequate fluid intake over a prolonged period Clinically this is encountered in debilitated chronically ill patients who fluctuate widely in their fluid and food intakes These patients consume less water than minimal requirements but enough to allow the kidney to hold the solute concentrate of the body fluids usually found in healthy people While reduced water intake gradually decreases plasma volume, the kidey protects the concentration of the extrallular fluids by excreting salt as the body ontent of water falls [2] The osmotic pressure of the body fluids remains normal, unless insufficient water is taken to excrete electrolytes If this occurs, the picture resembles one of acute water deficit with increasing solute concentrations and a rising nitrogen level in the blood In debilitated people, eating diminishes as water deficit increases, which explains in part the hypoproteinemia, anemia, and general undernutrition usually found in these patients The surgical risk in this group is considerable if adequate preoperative therapy is not given [3]

Correction of chronic water dehydration may require whole blood parenterally for anemia and protein hyrolysates for hypoproteinemia Need for kind and amounts of parenteral replacement is usually indicated by the physical appearance of patients and their diet history The duration and severity of symptoms and signs elicited from a history and physical examination will give one indication of the magnitude of the changes present Gradual increase in the extracellular fluid compartments will occur if an excess of water over minimal requirements is given each day For the usual adult 3 L or $^1/_2$ L in excess of minimal requirements will be satisfactory One must be on guard not to give these patients much salt until hypoproteinemia and anemia are corrected Likewise one should not recommend them for elective surgery

Burns

In patients with burns, the accumulation of sodium chloride, protein, and water in the burned area results in the lowering of plasma volume and hemoconcentration [4] Maintenance of adequate blood volume is essential for a high recovery rate In mild burns this can be done with parenteral plasma or whole blood Patients with severe burns require, in addition to whole blood parenterally, a saline or bicarbonate solution by mouth [5] Whole blood also prevents the anemia which is commonly observed during convalescence [6] In severe burns large amounts of whole blood (1 to 5 per cent of body weight in kilograms) and two thirds isotonic salt solution by mouth (10 to 15 per cent of body weight in kilograms) may be required to restore blood volume from shock proportions [7] Care must be taken to prevent symptoms of water intoxication by observing kidney function Burned patients show increased retention of water during the postshock period and therefore decreases in protein, chloride, and sodium concentrations of the plasma do not represent a deficiency but a dilution [6]

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general, however, one should treat the acidosis accompanying shock and hemorrhage, but should use care not to overcorrect to a state of alkalosis [12] Whole blood because of its oxygen-carrying capacity is enjoying more favor than plasma [13]

Potassium Shock Syndrome

Newer knowledge of the role potassium plays in the shock accompanying diabetic acidosis has helped explain why some patients with severe diabetic acidosis die suddenly of respiratory paralysis a few hours after temporary improvement has occurred from treatment [14] Potassium ions migrate from cells in conditions where excessive excretion of sodium chloride and water occurs It is believed that these ions also are required for glycogenesis in the liver [15] Thus, conditions are ideal in diabetic acidosis for the loss of potassium ions, first from the cells, and later from body fluids through excretion by the kidney When treatment of the acidosis is started, the insulin injected causes potassium ions to be drawn from plasma into liver cells In addition, further decrease in the potassium level of the plasma occurs from the dilution effect of parenteral glucose fluids and from potassium ions passing with sugar from the blood to tissues, following insulin action [6] Respiratory paralysis and sudden death may occur if replacement therapy is not immediately instituted or the patient placed in a respirator [17] There is little danger of toxic effects from replacement excess if solutions are used which have the same concentrations of potassium as extracellular fluid However, if kidney function is poor, toxic accumulations can occur from potassium administration by any route [18]

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PRIMARY CARCINOMA OF THE LUNG

CLINICAL ASPECTS

J N HAYES, M D , Saranac Lake, New York

PRIMARY carcinoma of the lung is not only more frequently diagnosed today, but also, it is generally agreed that it has become more common. Apparently it is increasing more than cancer of other organs [1] It makes up 6 to 8 per cent of all carcinoma, and in the male is next to cancer of the stomach in frequency [2] It kills 15,000 people annually in the United States Fortunately, this increased incidence has been accompanied by the training of more bronchoscopists and thoracic surgeons and by advances in respiratory physiology and anesthesiology, the advent of sulfonamides and antibiotics, a greater use of transfusions, and improved understanding of proper postoperative care of patients with thoracic disease It is now fifteen years since the first successful pneumonectomy by Graham We still lack a general education of the public concerning the early symptoms of cancer, and some of the medical profession is not aware of the protean picture of the onset of this disease Recognition of this disease in its earliest stages or, better, before symptoms are produced offers the only hope for improving results in the only curative treatment we have at present, surgical resection.

Pathology

The tumor has its origin from bronchial cells, usually where the stem branches or secondary bronchi divide The principal type, about 50 per cent, is the squamous cell or epidermoid cancer, less frequently the adenocarcinoma and the small or oat cell variety, and, less commonly, undifferentiated anaplastic types Pathologists do not agree on the question of whether there is a true alveolar cell carcinoma Ineda reports that various authors found 8 of 206 primary cancers were of this type [3] The cell types are related to the degree of malignancy, symptoms of onset, ease of diagnosis, manner and frequency of metastasis, duration of life, and amenability to surgical resection It is important, therefore, to determine the type of cancer

Patients with this disease are usually in the forty to sixty-five year group It is well to remember, however, that it is found in earlier decades, even in infancy Men have the disease four to five times more frequently than women Negroes appear to be less susceptible than the white race The right lung is the primary site more often than the left (about 60 per cent) [4,5]

Predisposing Causes—These are unknown, although excessive smoking of tobacco and, in certain industries, radioactive emanations have been blamed The increased incidence has been parallel in the last four decades to industrial development with its noxious chemicals and gases [6] In the outpatient department of the University of Chicago Clinics, where all patients have fluoroscopic examination of the chest, in a special search for pulmonary tuberculosis 91 (0 6 per cent) of 15,000 patients had intrathoracic tumors Of these 25 had primary carcinoma of the lung [7]

Site—The most common site of origin is in or near the hilum, in some series as frequently as 90 per cent [8] Roughly, about 70 per cent begin here, 20 per cent in mid lung, and 10 per cent in the periphery of the organ Therefore, about 60 to 75 per cent are amenable to diagnosis by means of the bronchoscope which cannot be expected to reveal a mass far out in the bronchi *In addition,* the site of origin is related to the occurrence of early symptoms because obstruction of larger

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York New York City Session on Chest Diseases May 20 1948.

bronchi produces earlier symptoms and more significant roentgenologic signs than does obstruction more peripherally Also the type of early symptoms is related to the site peripherally pleural pain occurs early, early symptoms from partial or complete obstruction of a bronchus occur more frequently with a hilar focus

Type —Of great importance in early recognition is the type of tumor, because this is related to the speed, frequency, and manner of extension locally and by metastasis The tumor grows along the bronchial wall or through it into the lumen and by lymphatics to the regional lymph nodes or along septal lymphatics to the pleura, or by contiguity into vessels, through the pericardium into heart or into esophagus, or peripherally through the pleura into bones, diaphragm, liver, and nerves When it begins in the mucous glands of a bronchus, Ewing finds it chiefly limited to the bronchial wall, leading to compression of the bronchus with atelectasis and contracted lung Direct extension is greater than in cancer of other organs due to the rich lymphatic system of this organ [4] Coughing spreads cancer cells within the lumina of bronchi

Hematogenous Metastasis —This is usual, and it sometimes occurs so early that the first clinical evidence is the discovery of a remote metastatic focus In the average case, which is the same as saying the case which is discovered late, the incidence of metastasis is high, and therefore, most of these tumors are inoperable In Overholt's series, 14 per cent had no extrapulmonary extension when operated on, Churchill found operation feasible in 33 6 per cent and resection possible in 17 4 per cent [9] Rienhoff was able to resect the lung in 39 per cent [10] Metastases from cancer of other organs encounter the filtering barrier of the lung, this is not so with bronchogenic cancer Fried found pulmonary vessels involved in all of his autopsy cases Moise found no metastases in 10 per cent of his postmortem series The most frequently involved organs are the liver, kidney, bone, brain, and adrenal It has been said frequently that when tumor of brain has been suspected or diagnosed, cancer of the lung as the primary site must be eliminated

Regional Lymph Nodes —Bronchial, paratracheal, and mediastinal nodes are involved in 75 to 90 per cent of all autopsy series Cervical nodes are found to contain cancer in about 10 per cent It is important to examine the axillary nodes because some lymphatics from the thorax drain directly into them without going through the cervical nodes Some superficial nodes may be involved in 5 to 20 per cent of cases Metastasis by lymphatics may also travel through the diaphragm to retroperitoneal nodes

The type of carcinoma varies in different reported series The squamous cell carcinoma is less likely to metastasize by blood stream, more frequently by lymphatics, and is slower growing than the others [3] It extends into the lung more than the small cell type, is less likely to involve the tracheobronchial nodes, and is more likely to begin distal to a main bronchial stem The small cell type more frequently begins in a main stem bronchus and always invades the mediastinum [11] The adenocarcinoma and oat cell type metastasize frequently by the blood stream The oat cell cancer is apt to invade the mediastinum and lung in a diffuse infiltration [9] Koletsky found extrathoracic metastases of the squamous cell type in 35 per cent, of the small cell type in 89 per cent, of adenocarcinoma in 86 per cent

The "alveolar cell carcinoma," which many believe has its origin from bronchiolar basal cells, may be of two types multiple nodular or miliary, and diffuse or pneumonic Metastasis to regional lymph nodes and generalized metastasis are less usual than in the commoner types [3]

Necrosis —In further relationship to the type of cell, necrosis is more common in the squamous cell carcinoma It is very important, therefore, to determine the etiology of chronic pulmonary abscess If it is cancerous and of the squamous cell type, the regional lymph nodes are not so likely to be involved, distant metastasis is less likely than in the other types, and successful resection is more likely Abscess is found in 8 to 26 per cent of cases [12] Other pathologic sequelae include bronchial stenosis and distal bronchiectasis, pneumonia, gangrene, and pleural effusion which may be serous (14 per cent), hemorrhagic (13 per cent), or purulent (12 per cent) [5]

Symptoms

No symptoms are noticed, in the beginning in a small percentage the metastasis attracting the first attention When discovered in an early stage by routine x-ray examination, no symptoms are elicited at all Symptoms with a hilar location may be produced only after a large bronchus is moderately obstructed

Cough.—The earliest symptom is persistent cough or a definite change in characteristic of the chronic cough It is usually dry at first, later accompanied by sputum which early is mucoid, sometimes blood-tinged, or even accompanied by frank hemoptysis The cough may be harassing, nocturnal, and emetic when a papillomatous tumor lies in a bronchus. Discomfort in the chest, a sense of heaviness, or actual pain, usually over the site of the tumor, is noticed early It is not affected by breathing When pleurisy super-

venes or when nerves are involved, the pain becomes excruciating

Dyspnea.—This is sometimes complained of early, resting does not relieve it Shortness of breath is a more common early symptom than in pulmonary tuberculosis Occurring suddenly, it may be an evidence of pleural effusion or of atelectasis Compression of pulmonary arteries and veins by the perivascular infiltration is one cause of the shortness of breath In the Mayo Clinic cases, dyspnea was noticed as often (42 per cent) in the operable as in the nonresectible cases [13] In diffuse tumor dyspnea, cyanosis, and prostration are marked These patients report loss of weight and strength

Wheezing —Unilateral and usually localized over one hilum, wheezing is an early symptom At the age of forty or sixty years, especially in a man, with sputum consistently negative for tubercle bacilli, any of these symptoms demands a thorough examination Since pulmonary tuberculosis and primary carcinoma of the lung sometimes resemble each other and are even found in the same patient, it is worth remarking that some physicians are content with too few examinations of sputum and after several negative concentrated examinations do not use the cultural method frequently enough to eliminate tuberculosis

The earliest symptoms are related to the site of the tumor, whether it grows into the lumen of the bronchus, whether it invades the mediastinum early or progresses into the parenchyma of the lung, to the invasion of the pleura, to the pressure on mediastinal structures, to its speed of metastasis and the site of the seeded cells, and to the secondary changes in the lung as result of infection If the tumor is located peripherally, it is silent for many months and later is likely to cause pleural symptoms, pain, and dyspnea This type, usually a squamous cell carcinoma, is generally circumscribed, not near the hilum and, therefore, not visible through the bronchoscope If it is located peripherally and at the superior sulcus, it presses upon the sympathetic nerves (Horner's syndrome) and through involvement of the first dorsal root causes brachial plexus pain and partial paralysis of the ulnar and median nerves It has a great tendency also to invade ribs and the thoracic wall [14] When growing into the lumen of the bronchus, the tumor produces an harassing cough, the dyspnea of atelectasis, and wheezing When the bronchus is completely obstructed, the wheeze disappears By blocking the airway it leads to atelectasis, distal infection, and bronchiectasis with resulting fever, purulent sputum, ulceration with bloody sputum, and all the signs and general symptoms of pulmonary abscess with its toxic syndrome If the bronchus becomes unblocked, definite symptomatic relief follows, but the chills and fever often recur Cancerous abscess differs from the acute form in that there is usually no sputum with the cough for several months, and the expectoration is less, seldom exceeding an ounce When the cancer invades the mediastinum early, the patient soon feels discomfort in the chest, evidence of pressure on the air passages, and later obstruction of venous return from the head, hoarseness from pressure on the recurrent left laryngeal nerve, or paralysis of the diaphragm from involvement of the phrenic nerve When the tumor cells spread along lymphatics into the lung early, signs of infection are found and later the pleural symptoms The squamous cell carcinoma usually does not metastasize as early as does the adenocarcinoma or the small or oat cell variety, but in any of them the first evidence may be enlarged nodes in the supraclavicular fossa or axilla or on the chest wall, or the signs of brain tumor may attract attention, and properly so, to the presence of primary lung cancer

X-Ray

Usually a very early carcinoma can be discovered only when making routine or survey roentgenograms of the chest In Bloch's early cases the shadow could not at first be differentiated from any small inflammatory infiltrate [7] When such a small lesion excavates, it resembles very closely pulmonary tuberculosis

The first definite clue to the diagnosis is frequently gained from a chest roentgenogram which reveals a mass, usually near the hilum, occasionally more peripheral and circumscribed, often accompanied by the shadow of atelectasis The latter is like ground glass in diffuseness, in size segmental or lobar or including the whole lung The mediastinum and its contents are often enlarged and are drawn toward the involved side, the diaphragm pulled upward Pulmonitis, bronchiectasis, and abscess formation are common sequelae Pleural effusion is common Lateral films help to locate the tumor unless it is hidden by the atelectasis or pleural effusion If the bronchial obstruction is not complete, expiratory and inspiratory films or observation of the respiratory cycle under the fluoroscope may reveal obstructive emphysema, with the mediastinum pushed to the side opposite to the tumor during expiration and with failure of the lung to empty well Also the elevated and motionless diaphragm of phrenic paralysis or the erosion of ribs in the superior sulcus tumor of Pancoast may be seen Occasionally, when atelectasis or pleural fluid hides the tumor mass, a diagnostic pneumothorax may help to reveal it in the x-ray film. Occasionally, planigraphic films may show the

bronchial obstruction The use of bronchography with lipiodol should be carefully considered, because surgeons sometimes find that a resection may have to be postponed for some weeks because of a resulting pulmonitis If history and x-ray are suggestive and no biopsy is obtainable, bronchography and planigraphy may be helpful

With the characteristic symptoms and roentgenologic signs the patient should be referred to a bronchoscopist for a definite diagnosis, or if the tumor is peripheral and beyond the ken of the bronchoscopist, a surgeon should be consulted to consider the advisability of exploratory thoracotomy

Other means may sometimes be employed to arrive at a diagnosis If there is pleural effusion, tumor cells may be searched for in the aspirated fluid The fluid is frequently blood tinged Search for tumor cells in the sputum has not become popular in this country because of technical difficulties, but in the hands of the group at St George's Hospital in London it has been useful in arriving at a diagnosis in 68 per cent of proved cases [15,16] Clerf and Herbert report that examination of bronchial secretions obtained through the bronchoscope is more reliable [17] By this method they found cancer cells in 22 of 30 cases when the biopsy specimen was positive in only 11 They hope that peripheral tumors inaccessible to bronchoscopy may be diagnosed earlier by this means Some other clinics have not found this procedure valuable Finally, in some cases with early metastasis to peripheral lymph nodes, removal and biopsy of the node may lead to a diagnosis It is usually a small cell cancer, whereas positive biopsies from bronchial tumors are usually squamous cell or adenocarcinoma

Aspiration by needle is generally condemned because of the danger of implanting into the chest wall tumor cells or bacteria and because of unreliable results

Physical Signs

As with symptoms, these depend on the site and size of tumor, the degree of bronchial obstruction and secondary infection, and the presence or absence of pleurisy and enlarged superficial lymph nodes The latter is found in about 15 per cent of cases

In early tumor there may be no abnormal signs elicited over the chest for several months after the onset of symptoms When the mass is large enough, dullness to flatness may be elicited over the tumor Resistance to the pleximeter finger has been noted The breath sounds are more likely to be diminished and rales less prominent than in an equivalent lesion due to tuberculosis One may detect the retracted trachea and decreased or lagging thoracic motion and narrowed intercostal spaces of atelectasis, the flatness and sometimes harsher breath sounds, although somewhat distant from the ear, of pleural effusion, and the rales of pulmonitis bronchiectasis, and abscess One should examine for the localized wheezing of bronchial stenosis, especially during expiration, best heard, if it is not constant, by placing the patient on the affected side and having him expire deeply Signs of pressure include acrocyanosis and clubbed fingers, prominent veins on the chest and arm, cyanosis and edema of the face and neck, Horner's syndrome (decreased palpebral fissure, contracted pupil, enophthalmos, and alterations of the sweating and blushing of the affected side) In his syndrome Pancoast mentions atrophy of the shoulder girdle and of the side of the face and coldness or swelling and weakness of the arm

Duration

In Adler's series the duration of life was from ten days to four years Parnell found the duration from onset of symptoms to the time of diagnosis was twelve months in the squamous cell type and six months in the oat and columnar cell types [18] In Tinney's series the duration from onset to death was fourteen and a half months, from diagnosis to death six months [19] Relating the duration of life after the onset of symptoms to the site of tumor, Ochsner and DeBakey found it to be thirty-three and nine-tenths months in the hilar tumor and thirteen and seven-tenths months in the peripheral tumor

The immediate cause of death may be due to rupture into large veins, asphyxia and pulmonary edema, cachexia, and toxic infection, or to the effect of metastatic cancer

Differential Diagnosis

Adenoma of the bronchus may cause the same obstructive symptoms and signs as does carcinoma Hemoptysis is common This disease is more common in women age thirteen to forty four years The course is very prolonged Occurring usually in a primary bronchus, atelectasis and bronchiectasis are frequent sequelae Adenoma of the bronchus is frequently associated with congenital cystic disease and with abnormalities of lobation and bronchi [23,21]

The following conditions should also be considered when the differential diagnosis is being made

Hamartoma is a round mass containing calcium, surrounded by normal lung tissue, usually in the periphery of a lobe [20,21]

In pulmonary tuberculosis the bacilli can usually

be found in the sputum, although the search may be repeated and prolonged. This disease usually involves both lungs, the presence of multiple cavities also favors tuberculosis

Tuberculoma, circumscribed and frequently without sputum, may be difficult to diagnose The presence of calcium in the tumor is against carcinoma. Pulmonary tuberculosis is not infrequently complicated by atelectasis and bronchiectasis. It must be remembered that cancer and tuberculosis occur in the same lung and that acid-fast bacilli found in the sputum from a chronic abscess are not always tubercle bacilli.

When the roentgenogram reveals a hilar tumor with mediastinal mass resembling lymphoblastoma, if no biopsy is obtainable, Scatchard advised trying irradiation for seven to ten days If no recession of the mass results, it is probably cancer [22]

In pyogenic abscess the sputum is likely to be foul at times and is nearly always greater in volume than in cancerous abscess Sometimes the diagnosis can be made only by exploratory thoracotomy

Other conditions which may be confused with pulmonary carcinoma are bronchiectasis, pleural effusion, aortic aneurysm, and chronic pneumonia. Pneumonia, unresolved or relapsing, in a man over forty years of age is very suspicious of cancer Chronic abscess, beginning without a previous operation or after an indefinite respiratory infection, is always to be suspected of cancer

Dermoid tumor is usually in the anterior mediastinum, neurofibroma posterior in the vertebral gutter

Summary

The symptoms and signs of bronchogenic carcinoma are absent in its early stages and later are dependent upon the site and size of the tumor and its cell type Cough, expectoration, hemoptysis, dyspnea, pain in the chest, and localized wheezing are the principal symptoms. The pathologic sequelae of atelectasis, pleurisy, bronchiectasis, abscess, and pulmonitis affect the roentgenologic and clinical picture The carcinoma may be diagnosed by biopsy of a lymph node or by finding characteristic cells in the sputum or pleural fluid The final diagnosis usually is made by the bronchoscopist or surgeon To discover it early the clinician must have the disease constantly in mind.

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THE PATHOLOGY OF CARCINOMA OF THE BRONCHUS

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SINCE the early part of this century, there has probably been no other pathologic condition which has received as much attention in the medical literature than has carcinoma of the bronchus This is interesting in view of the fact that, in 1896, Pässler could collect only 70 cases of undoubted carcinoma of the lung, and Adler in 1912 found 374 authentic cases, and Weller in 1913 in a rigid critical review could find only 89 cases which met his standards, to which he added one of his own [1-3]

Incidence

A survey of different reports from all parts of the world indicates that carcinoma of the bronchus is found in about one per cent of all autopsies and in about eight per cent of all deaths from carcinoma Some authors believe it second in frequency only to carcinoma of the stomach [4-7]

The increase in reported cases poses the question of whether the increased incidence is real or apparent Much of the literature on carcinoma of the bronchus has been devoted to this question Many authors believe the increase to be real [8-20]

The proponents of the view that the increase is real point to the steady increase in the incidence of reported cases (Fuchs 0 065 per cent in 1885, Wolf 0.223 per cent in 1894, Briese 0 46 per cent in 1916, Barron 0 9 per cent in 1922) [21-24] Other adherents to this belief report a steadily increasing incidence of bronchial malignancies in the same institute Thus Berblinger reports an increase of 2.2 per cent from 1910 to 1914 and 8 3 per cent from 1920 to 1924, while Seyfarth found a threefold increase (5 01 per cent from 1900 to 1906 and 15 5 per cent in six months of 1924) [25,26]

A potent argument in favor of the conclusion that the increase is real is to be found in reports of increased incidence in the same institution under the same direction such as reported by Rosahn, Simpson, Dugmd, and Weller [17 18 27 28] There are other authors who believe the increase to be more apparent than real [29-34] Jaffe, who believes that the increase is more apparent than real, in two separate reports from different parts of the world done in an interval of twenty years, found an almost similar incidence on each occasion [35] We must agree with Klotz that much of the increase in bronchial carcinoma is apparent [36] How much is real will probably never be known

The question arises as to what may account for the great increase in the incidence There are a number of factors of which the increased span of life is prominent Morbidity and mortality statistics disclose a steady increase in longevity Since carcinoma of the bronchus occurs with mounting frequency toward the sixth decade, it follows that a greater number of potential victims are available to fall heir to the disease More thorough examination of the lungs is another factor in the increased incidence Complete microscopic studies are now an integral part of the autopsy Heretofore many of the unreported cases either lacked histologic studies or were wrongly interpreted In the former group some were reported either as chronic pulmonary tuberculosis or as lung abscess In the latter group are many cases of undifferentiated cell carcinomas which were formerly considered to be sarcomata Under the influence of Virchow it was felt that tissue subject to metastatic growth rarely produced primary growth, and the lungs were cited as an example

Material

Our study is based on 50 autopsies, most of which died in an institution devoted to the treatment of tuberculosis, having been admitted to the hospital with the mistaken diagnosis of chronic pulmonary tuberculosis Some of these patients were admitted to the hospital because of a sputum positive for tubercle bacilli, but most were admitted because of the presence of one or more cavities in the lung These subsequently proved to be abscess or carcinoma cavities This common error has been stressed by Hruby and Sweany [37]

Sex —Ninety-two and five-tenths per cent of the series were men and 7 5 per cent women In most reports the ratio of men to women is given as 3 1 There are a number of other authors whose proportion more nearly approaches our own [1,25,37-39]

Many reasons have been given for the great discrepancy in sex incidence Among these have been cigarette smoking and exposure to fumes and dusts All of these are subject to criticism,

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and there is general agreement today that no apparent reason for the difference is known

Race.—Eighty-five per cent of this group were white, while 15 per cent were Negroes. A similar distribution in both races was reported by Arkin and Wagner.[40] Jaffe finds the low incidence in Negroes explained by the shorter life span in that race.[35] We question the explanation of the low incidence in Negroes as a result of the shorter life span in that race. We also question the attachment of too much significance to the low incidence of Negroes in some series, since Karsner and Saphir found carcinoma of the bronchus in six Negroes of 25 cases.[41]

Age.—The youngest individual in this group was twenty-five years of age and the oldest seventy-six years of age. The greatest number of cases occurred in the sixth and seventh decades of life, an observation universally reported in the literature (Table 1). It is interesting to note that two of the cases in the third decade of life were women.

Duration.—The total duration of the disease from the onset of symptoms as recorded varied from one to twenty-three months. The vast majority of cases were of less than twelve months duration.

Location.—In the 47 cases where a primary site could be determined, the right lung was involved on 25 occasions and the left lung in 22 instances. The right main bronchus was affected nine times and the left main bronchus in seven instances. The individual lobes were involved in the following manner: right upper lobe, ten times, right lower lobe, six times, left upper lobe, 13 times, left lower lobe, two times.

The slightly greater frequency on the right and the much greater frequency in the upper lobes accords with most of the reports in the literature. There are, however, some reports of a greater frequency in the left lung.[7, 10, 24, 42–44] The presence of only eight cases in the lower lobes is in accord with most reports in the literature, the notable exception being Kikuth who found an almost even distribution in all lobes.[45]

Pathologic Anatomy

Classifications based on the gross appearance of carcinoma of the bronchus have been extremely varied. Various authors have grouped the tumors in from two to five types. It has been our impression that carcinoma of the bronchus could be divided into three main groups: (1) the hilar type arising from the right or left main bronchus, (2) the pulmonary type arising in a branch of the bronchus within the lung parenchyma, and (3) the peripheral type in which no bronchial origin could be found on gross examination. We believe that this classification is justified in that all but four of our cases could be placed in the three groups and the anatomic findings of the individual cases were similar in each of the groups.

In the first two groups, inflammatory changes in the lung parenchyma beyond the obstruction dominate the clinical picture early in the course of the disease.

Hilar Type.—There were 16 cases in this group. This is far less than the 90 per cent reported by Weller and 76 by Jaffe and Rogers.[26, 35, 46] The reason for the discrepancy lies in the fact that these authors included cases of carcinoma arising in the first division of the main bronchus and spread toward the mediastinum. The point of origin within the main bronchus is usually 2 or 3 cm. below the bifurcation of the trachea. The mucous membrane in this region is irregularly thickened, and the lining surface has a rough, granular, yellow surface. At this stage of development the diagnosis is made only by microscopic study. As the process continues, the growth extends in all directions. In its extension through the bronchial wall there is a complete disruption of the normal architecture of the bronchus. Having reached the outer wall of the bronchus, the tumor then extends into the adjoining mediastinal structures. First the superior and inferior tracheobronchial nodes are encircled by the tumor and gradually replaced by it. The tumor then extends to the neighboring structures to involve the medial pleura of the affected side. The recurrent laryngeal and phrenic nerves lying on the lateral aspect of the trachea may also become embedded in the tumor mass. In its anterior extension the carcinoma encircles the walls of the pulmonary artery and vein, the superior vena cava and the arch of the aorta, the parietal pericardium, and less frequently the myocardium. The tumor grows outward in a radiating, fan-shaped mass, is usually of firm consistency, and has a yellow color. A coronal section shows remnants of lymph nodes and the blood vessels compressed within the tumor mass. In its posterior progression, which is a less frequent occurrence, the carcinoma may extend into the wall of the esophagus (6 per cent). Perforation into the lumen of the esophagus has been observed twice by Kramer and Som.[47] In both instances it was a squamous cell carcinoma of the right main bronchus.

TABLE 1.—AGE INCIDENCE IN 50 AUTOPSIES ON CARCINOMA OF THE LUNG

Age (Years)	Number of Cases
20–29	2
30–39	2
40–49	5
50–59	20
60–69	19
70–79	2

The lumen of the bronchus becomes progressively narrower, occasionally because of a fungating mass growing into the canal, but most often because of the marked thickening of the bronchial wall in the region of the tumor Boyd was impressed with the frequency with which it grows outward rather than inward, and Halpert pointed out that narrowing and obliteration of the lumen is more frequently caused by infiltration than by intralumenal growth [29 48] The tumor extends in the direction of the trachea and also toward the branch bronchi In a few instances we found tumor growing into the lumen as a fungating yellow mass As the mass grows larger, it undergoes necrosis and liquefaction so that parts of the tumor are expectorated and the lumen regains some of its patency again.

The retention of bacteria distal to the narrowed portion of the bronchus results in bronchopneumonia, purulent bronchitis, lung abscesses, bronchiectasis, and pulmonary fibrosis Occasionally, the lung abscess may rupture into the pleural space and result in an empyema Secondary infections of the lung and their sequelae dominate the process and so obscure the primary lesion that the diagnosis of lung abscess or empyema is made long before the discovery of the malignancy Graham rightly states that it is these complications and sequelae which are responsible for many deaths [49] Pleural aspirations in these cases will often reveal no evidence of tumor cells

Pulmonary Type —The gross findings in different cases of this group vary but slightly, and such differences as occur depend on the order of bronchus in which the carcinoma arises

The early anatomic changes are similar to those in the hilar type In its growth outward, the tumor encloses the regional peribronchial lymph nodes and extends into the surrounding lung parenchyma Thus forms a large yellow area, and in cases arising in first order bronchi the mass extends to the pleura, usually in the medial aspect of the lung and from there to the mediastinal structures The mediastinal invasion is never as extensive as in the hilar type However, some authors have included these cases in their hilar group

As the tumor enlarges, areas of necrosis and liquefaction develop within it When these are evacuated, the resultant cavity is usually lined by a wide yellow zone of tumor tissue Sometimes a portion of the cavity is lined by a gray membrane, indicating secondary infection In a number of cases a branch of the pulmonary artery may be invaded by the tumor This process resulted in fatal hemorrhages in six cases of this series

Concomitant with the obstructive changes in the lumen of the bronchus are the inflammatory changes which develop in the portions of the lung parenchyma peripheral to the occlusion. These changes are usually limited to the segment supplied by the involved bronchus With the extension of the tumor into adjoining proximal branches other segments will show these secondary changes Occasionally, the tumor of a first order bronchus may extend to the bronchus of the adjoining lobes, and with obstruction this lobe will also develop an extensive secondary infection

The abscess cavities are easily distinguishable from the tumor cavities The former are lined by a pyogenic membrane and show no tumor tissue within their walls

Peripheral Type —There were seven cases in this group (14 per cent) Jaffe found it in 13 per cent of his cases [35] This is of interest since Klotz emphasized that this type of tumor is exceedingly rare, and he had only observed one such case We agree with Jaffe that this type of tumor offers the greatest diagnostic difficulties [36] Although this type of tumor appears in most classifications, its criteria are not sharply defined, and to different authors the phrase has different meanings

This tumor is present in the peripheral portions of the lung and is of variable size (2 to 5 cm) Occasionally the tumor lies completely within the lung parenchyma and is discovered incidentally at autopsy (one case) In others it extends to involve the overlying pleura (two cases), and sometimes it may extend to the adjoining chest wall In our series, of three cases which remained localized, one was a squamous carcinoma, one an adenocarcinoma, and the third an undifferentiated cell carcinoma In one case a peripheral carcinoma located in the superior and medial aspect of the lobe extended into the mediastinum to involve the pericardium and the myocardium of the heart Three of the seven cases showed distant metastases

It is rather interesting that in two separate reports in the same publication Rabin and Neuhof conclude that circumscribed tumors unrelated to bronchi are the most favorable for operation, while Tuttle and Womack, from observations of autopsy material, found that most patients whose first symptoms were from metastatic lesions had a primary lesion, often very small, in the periphery of the lung [50 51] Perhaps both these reports may be reconciled by the fact that some of the peripheral carcinomas invade the blood stream early in the disease, while others do not show that tendency

Histogenesis

For a long period of time it was felt that carcinoma of the lung may arise from either the mucous membrane of the bronchus, the mucous

glands, or the alveolar epithelium Klotz correctly pointed out the futility of histogenetic grouping because of the fact that there is usually little resemblance between tumor cells and normal pulmonary structures, making it difficult to establish histologic origins The greatest difficulty lies in the fact that many of the tumors show varied histologic pictures The generally accepted view today is that carcinoma of the bronchus arises exclusively from the bronchial epithelium. There are many authors who believe that this is the only type of carcinoma in the lung

An increasing number of reports in the literature support the view that alveolar epithelium exists and that carcinoma may arise from it Tuttle and Womack point out that mucous glands apparently have their origin from bronchial epithelium.[51] The ducts are lined by ciliated cells continuous with those of the lumen of the bronchus, and the mucous glands are composed of cells similar to goblet cells This genesis simplifies the classification of bronchogenic carcinoma, and they conclude that since all the structures have the same origin, it is unnecessary to classify mucous glands separately There is, however, no universal agreement on this subject Frissell and Knox believe that both pulmonary and metastatic carcinomas may replace the normal lining epithelium by a single layer of tall, columnar cells, and this represents only an adaptation of the tumor to the anatomic structure of the lung [52]

Histopathology

We have found that all the cases could be classified into one of three types squamous cell, undifferentiated cell carcinoma, and adenocarcinoma The first two types form the great majority of cases in our series, and this is in agreement with most reports in the literature Although we found the undifferentiated type most common, many other authors found the squamous cell form to be most frequent [18,41,44,48,53]

We have not been able to verify Geschickter and Denison's observations that the squamous cell carcinoma arises in the hilar region and is more common after the age of fifty years and that below the age of fifty the undifferentiated cell type predominates [54] Our findings agree with Frissell and Knox and Samson that morphology has nothing to do with the level of origin and that none of the three types is found exclusively in any one location.[52,55]

Boyd correctly stated that there is perhaps no tumor which is so pleomorphic as carcinoma of the lung and that it varies from the most undifferentiated to the most fully differentiated.[29] The great difficulty with any attempt at histologic classification of pulmonary carcinoma is the marked variation of cell morphology in the same tumor It is not an infrequent occurrence to find two or three distinct cell types in the same microscopic section We are inclined to agree with Willis that, if enough sections were studied in each case, all three types would be observed in every carcinoma of the bronchus [56] Brines and Kenning believe that the variations of cell types in the same tumor are unquestionably due to multiple stages of differentiation and constitute the highest type of proof that the various microscopic patterns in primary carcinoma of the lung are entirely the result of differentiation from a common ancestral type [5]

Weller, basing his classification on differentiation alone, represented the course of differentiation of a common parent cell by the letter Y [57] This undifferentiated cell in his schema occupies the lower extremity of the stem, and slightly or poorly differentiated neoplasms are represented by the stem of the Y The crotch of the Y represents the point at which there is some evidence of differentiation into columnar epithelium The extreme upper portion of the left arm represents entdifferentiation into papillary and mucin-secreting types Along the right arm of the Y there are various stages of differentiation into squamous cells progressing from entdifferentiation to the cornifying epithelioma at the top of the arm Samson in a subsequent study from the same laboratory found that his cases fitted into this schema without any difficulty [55] Most investigators, on the basis of morphologic studies following inflammation and animal experiments, believe that carcinoma of the bronchus arises from the basal layer of the bronchial epithelium These line the tunica propria and appear to be the only epithelial cells in the mucous membrane of the bronchial tree which are concerned with cell division and cell differentiation. Fried believes that the process of repair or regeneration is performed by the basal cell only [30] In physiologic repair these cells differentiate merely into the normal lining of the bronchus, but when the process is a pathologic one, their fate depends on the nature of the stimulus and the resistance of host They may form metaplastic islands and so remain indefinitely or may develop a malignant tumor Halpert states that, if the epithelial cells which replace other epithelial cells in a given area retain their embryonic potentialities, it is easy to see how, in the course of forced and frequent cell division, dominant characteristics may be supplanted by recessive ones, and thus stratified squamous epithelium may be produced by these cells [43] They believe that such a concept offers a logical explanation for the variety of the cellular

structure of carcinoma of the lung Willis taking sharp issue with this point of view states that it is a self-evident statement that the tumors arise from cells capable of multiplication, and the so-called "reserve cell carcinomas" are merely anaplastic [56]

Metastases

Widespread metastases as a result of lymphatic and blood stream invasion are frequently encountered in pulmonary carcinoma In some instances small tumors may result in widespread blood stream metastases In one of our cases with extensive extrathoracic metastases the primary bronchial carcinoma was found with some difficulty

The regional lymph nodes were involved in varying degrees in all but three of our cases These were the three cases of peripheral carcinoma of the lung Two of these extended to involve the overlying pleura and one was confined to the lung parenchyma This latter case was the only one in our series which showed no evidence of metastasis

TABLE 2 —METASTASES IN A SERIES OF 50 AUTOPSIES

	Number	Per Cent
Regional Nodes	46	92
Pleura (extension)	39	78
Pericardium	14	28
Adrenals	13	26
Kidneys	12	24
Bone	11	22
Liver	9	18
Abdominal Lymph Nodes	11	22
Spleen	5	10
Myocardium	4	8
Pancreas	3	6
Esophagus	3	6
Diaphragm	3	6
Brain	2	4
Thyroid gland	1	2
Parotid gland	1	2

This neoplasm, although it metastasizes to many organs, shows a predisposition to seed in the adrenals and brain From Table 2 it may be seen that adrenal metastases were found in 26 per cent of the cases and brain metastases in 4 per cent The low incidence of brain metastases in our series may, in part, be explained by the fact that brains were not examined in more than half of our cases Dosquet in a comparison with other malignancies finds that frequency of metastases to these organs by carcinoma of the lung is a distinguishing feature of this tumor [58] Fried and Buckley explain the greater frequency of brain metastases from lung cancer when compared with extrapulmonary carcinoma on the lack of any barrier between the lung and the brain [59] Visceral cancers, on the other hand, reach the lungs with great frequency where they are retained by the pulmonary capillaries

Some authors have stated that the more anaplastic tumors show a great tendency to widespread metastases while the squamous cell carcinoma tends to remain limited to the regional lymph nodes [6,14,55] Boyd found no connection between the degree of cellular differentiation and the tendency to metastases [29] Our own findings would indicate that some of the most anaplastic tumors may remain confined to the regional lymph nodes, while some of the most fully differentiated may become widely disseminated In 57 per cent of the undifferentiated cell carcinomas and in only 17 per cent of the squamous cell carcinomas, there were extrathoracic metastases Karsner and Saphir found an almost similar distribution in their series [41]

The presence of distant metastases in 75 per cent of the cases of adenocarcinoma would tend to verify the statement of Frissell and Knox that this is the most rapidly growing and widely metastasizing of lung tumors [52] It is interesting to note that Olsen found this group as showing the least tendency to metastasize [44] In contrast, Koletsky found extrathoracic metastases in 35 per cent of the squamous cell carcinoma, as compared to 89 per cent of the small cell carcinoma and 86 per cent of the adenocarcinoma [6]

Other Forms

There were four cases in this series which could not be classified in the three groups outlined above.

Carcinoma Pneumonia.—Two of the cases were those of carcinoma pneumonia, both cases in women The much greater incidence of women with carcinoma pneumonia than carcinoma of the bronchus has been stressed by Neuberger and Geever and Ikeda [60,61] One of the women was twenty-five years and the other forty-five years of age Both cases assumed the diffuse form first described by Musser [62] Clinically and roentgenologically both cases behaved like confluent bronchopneumonia involving both lungs On gross examination the lungs in each case showed a gray, granular surface in which the lobular configuration was still discernible A diagnosis of carcinoma could not be made on gross examination, and the first case was mistaken for pneumonia in the stage of gray hepatization

The microscopic appearance of the lungs in these two cases was as follows the alveolar septa were thickened by connective tissue but intact In one of the cases the septal walls were lined by columnar epithelium, some of which showed papillary protrusions In many areas the epithelium lay free in the lumen and showed a definite acinar formation In the other case the epithelial cells were arranged in sheets The cells were large and contained plump nuclei within which were large prominent nucleoli Mitotic figures and small focal areas of necrosis

were found in both cases The lymphatic vessels were distended and filled with tumor cells In both cases the bronchi and bronchioles were extensively studied but showed no evidence of carcinoma, and we feel reasonably certain that they did not give origin to the tumor These cases were reviewed by Ewing who concurred in the opinion that both cases were alveolar cell carcinoma

There are many authors who doubt the existence of this type of carcinoma because they doubt the existence of an epithelial lining [30 40 54,61] Some believe that it is really a bronchogenic carcinoma which rapidly metastasizes to different parts of the lung by way of an epithelial downgrowth from the bronchial tree with extension through pores of Kohn and the lymphatic channels [5,61] Neuberger and Geever collected 25 authentic cases of alveolar cell tumors up to 1942 [60] They believe that the idea of tumor arising in multiple bronchiolar foci seems preferable to them because of failure to show a primary bronchial focus and because no tumor downgrowth or extension through pores of Kohn was observed by them in their cases

Herbut on the other hand believes that such a supposition is entirely unnecessary [65] Since bronchogenic carcinomas ordinarily are considered to arise from one bronchus and the multiple growths throughout the rest of the lungs are considered metastatic, why should the same explanation suffice for carcinomas with an alveolar distribution He points out that it is a simple matter for the cells to break through the thin lymphatic walls or to move peripherally along the lumina of the bronchioles until the air sacs are reached

Multicentric Origin.—One case was of multicentric origin in a case of pulmonary silicosis Both lungs were studded with yellow nodules which varied in size from 1 to 5 mm These were distinct from the silicotic foci It is interesting to note that Rosedale and McKay described two cases of a diffuse type occurring in the presence of pneumoconiosis [33]

Microscopic study of these foci revealed an undifferentiated cell carcinoma arising in different branches of the bronchi in all lobes of the lung In most instances the carcinoma was limited to the bronchi or bronchioles and the surrounding lymphatic vessels In other areas the tumor had extended into the surrounding lung parenchyma There were widespread metastases to the extrathoracic viscera in this case

We feel justified in concluding that it was of multicentric origin in this case since many of the bronchi and bronchioles showed the malignant changes limited to the superficial layers Lindberg and Fevrter observed minute carcinoma foci in many bronchial branches [63,66] Karsner and Saphir believe that the multiplicity of nodules in the same lung is the result of metastasis, and they consider their view to be supported by the well-recognized propensity of lung cancer to invade lymphatic channels and veins early in the disease [41]

Microscopic Carcinoma of a Bronchiole — The fourth case was one of carcinoma in a patient with chronic pulmonary tuberculosis in which the primary site was found in a bronchiole of the upper lobe of the right lung only after careful search The reason for the search was the presence of gross metastases to the pleura and right superior tracheobronchial lymph nodes

The extensive metastases in the presence of a microscopic carcinoma is an extremely interesting finding Gray and Cordonnier reported a case of carcinoma in the lung in which the diagnosis was first made on routine microscopic examination.[67] They were impressed by the early invasion of the lymphatic channels In our case the metastases progressed to a much greater extent than the original growth Similar cases to ours have been reported by Womack and Graham, Stewart and Allison, and Turner and Willis [68–70]

Associated Chronic Pulmonary Tuberculosis

Pulmonary tuberculosis was associated with the carcinoma in 17 5 per cent of the cases On the other hand, when one considers that during this same period of time there were more than two thousand autopsies of chronic pulmonary tuberculosis in which there was no associated pulmonary carcinoma, we may conclude that the incidence of carcinoma in phthisic patients is no greater than that of the general population

Summary and Conclusions

1 Carcinoma of the bronchus is found in about 1 per cent of all autopsies and in about 8 per cent of all deaths from carcinoma

2 A review of the literature makes it appear that much of the increase in bronchial carcinoma is apparent How much is real will probably never be known

3 There were 50 autopsies of carcinoma of the lung in this series, 92 5 per cent were men, 7 5 per cent were women, 85 per cent were in whites and 15 per cent in Negroes The greatest number of cases were in the sixth and seventh decades of life

4 In 47 cases where a site could be determined, the right lung was involved in 25 and the left in 22 instances, the upper lobes were implicated more frequently than the lower

5 On the basis of its gross appearance and sequelae, carcinoma of the bronchus is divided

into three main groups (1) hilar type arising in the main bronchi, (2) pulmonary type, arising in branch bronchi, and (3) peripheral type in which the origin within a bronchus is not found on gross examination

6 The hilar type which comprised 32 per cent of all the cases is characterized by the carcinoma arising within the wall of the main bronchus As the growth progresses in all directions, it results in a thickening of the wall and a narrowing of the lumen In its outward progression it extends to and surrounds the adjoining mediastinal structures

7 The pulmonary type which comprised 46 per cent of all the cases is characterized by the carcinoma arising in a branch bronchus In its growth outward the tumor encloses the regional peribronchial lymph nodes and extends into surrounding lung parenchyma, forming a large yellow mass If necrosis and liquefaction supervene, a cavity may result If the first order bronchus is affected, it may extend to the mediastinum, but this is never as extensive as in the hilar type

(*a*) As a result of the narrowing of the bronchus, the bacteria retained within the lung give rise to bronchopneumonia, purulent bronchitis, lung abscess, bronchiectasis, pulmonary fibrosis and/or empyema if the abscess ruptures into the pleural space

(*b*) These secondary changes dominate and often obscure the picture of the carcinoma of the bronchus In the hilar type the secondary changes are present in the entire lung and the pulmonary type are present only in the region peripheral to the involved bronchus

8 The peripheral type which comprised 14 per cent of the cases lies in the peripheral portion of the lung and may extend to involve the overlying pleura and even the chest wall In three cases there were distant metastases.

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11 Metastases were present in all but one case and were the result of lymphatic and blood stream dissemination The cases of adenocarcinoma metastasized outside the chest (75 per cent) more frequently than undifferentiated cell carcinoma (57 per cent), while squamous cell carcinoma only metastasized in 17 per cent of the cases

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THE ROLE OF BRONCHOSCOPY IN DIAGNOSIS AND TREATMENT

Louis H Clerf, M D , and Peter Herbut, M D , Philadelphia, Pennsylvania

(From the Departments of Laryngology and Broncho-Esophagology and the Clinical Laboratories of Jefferson Hospital)

APPROXIMATELY a quarter of a century has passed since the first positive diagnosis of bronchogenic carcinoma was made in a living patient by bronchoscopic biopsy Prior to that time the diagnosis commonly was based on a study of metastatic lymph nodes or the findings at autopsy In 1926, Grove and Kramer reported a series of 24 cases of primary carcinoma of the lung [1] In 21, the diagnosis was made at autopsy, and in the remaining three by biopsy of a metastatic lymph node In none had there been a bronchoscopic examination. They stressed the importance of bronchoscopic examination as a useful diagnostic procedure and expressed the opinion that its frequent employment and an appreciation that primary carcinoma of the bronchus is not rare would lead to more correct diagnoses in living patients. They further emphasized that the use of bronchoscopy both in diagnosis and treatment offered hope where, formerly, the prognosis was very poor During the same year McCrae pointed out that since primary carcinoma of the lung commonly had its origin in a bronchus, bronchoscopy with biopsy could give information which was obtainable in no other way [2] He emphasized the importance of bronchoscopy particularly for early diagnosis

Internists slowly began to recognize the value of bronchoscopy as a diagnostic aid, and an increasing number of cases of carcinoma was reported in the literature In reviewing a series of 336 cases observed in the department of broncho-esophagology at the Jefferson Hospital from 1930 to 1945, it is noted that a diagnosis of carcinoma was made by biopsy in approximately 65 per cent [3] Holinger and his group reported 78 per cent positive biopsies in a series of 175 cases examined bronchoscopically [4] Overholt reported positive bronchoscopic biopsies in 62 per cent of his cases, and Adams was able to report a positive bronchoscopic diagnosis in 89 3 per cent of a series of 122 cases [5,6] Ochsner and his associates stated that bronchoscopy should give a positive diagnosis in about 70 per cent of cases of bronchial carcinoma.[7]

It soon was learned that, while bronchoscopy was of value in diagnosis, it offered practically nothing in the field of therapy Bronchoscopic removal, surgical diathermy carried out through the bronchoscope, and the employment of radium element or radon introduced bronchoscopically afforded only slight temporary relief It was not until 1933 that the first successful pneumonectomy for bronchogenic carcinoma was performed by Graham, and this remains the only plan of therapy that has been attended with success A study of cases reported up to 1946 clearly demonstrated that, whereas there were many large series of cases recorded, relatively few had been successfully treated by surgical extirpation and none by irradiation or other methods Furthermore, all the evidence seemed to indicate that the diagnosis of bronchial carcinoma, made at a time when surgical removal could be successfully performed, was accomplished in a minority rather than in a majority of the cases, this in spite of the fact that physicians were becoming cancer-of-the-bronchus conscious and that every effort was made to establish a positive diagnosis antemortem

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There were several explanations of this The principal one was failure of the patient to consult his physician during the incipient stages of the disease This was due in great part to the absence or the insignificance of symptoms in early disease A second common cause for failure in diagnosis was delay in utilizing the available diagnostic methods Overholt emphasized this need in his report of 143 patients with bronchial carcinoma, 60 per cent of whom were treated for many months on the basis of an incorrect diagnosis [5] Many of his patients were diagnosed as having bronchitis, pneumonitis, unresolved pneumonia, or other conditions without their ever having had a thorough examination The early clinical course of carcinoma is misleading because symptoms either are absent or slight, or they may masquerade as some other disease Physicians also had not developed a sufficiently strong suspicion of carcinoma—in other words, they were not cancer-minded

In a further review of our cases at the Jefferson Clinic, particularly on the basis of surgical exploration and successful treatment, it was found that relatively few were operable because of advanced disease It appeared that the higher the percentage of positive bronchoscopic biopsies, the higher the percentage of inoperable cases As a result few surgeons were able to report a series of successfully operated cases higher than 10 or 15 per cent of the total number observed

A critical study of published reports indicated that a majority of primary carcinomas diagnosed by bronchoscopic biopsy were found to have had their origin in or to have intruded into the larger bronchi, peripherally situated lesions and those in the upper lobes usually were not diagnosed positively until they began to intrude into a larger bronchus or produced signs of bronchial stenosis A retrograde telescope was employed for upper lobe lesions, but this was found to be of little assistance Pneumothorax in upper lesions was advocated but it had definite limitations and frequently did little to improve visualization of lesions A study of sputum for neoplastic cells had been advocated, but in this country few positive cases were reported Aspiration biopsy was recommended, but because of the dangers of cancer implantation it was condemned by a majority of the thoracic surgeons Exploratory thoracotomy was recommended, but neither physicians nor patients received this with enthusiasm.

In an effort to increase the number of positive diagnoses in pulmonary lesions which exhibited roentgen appearances of carcinoma but in which bronchoscopy proved negative, we inaugurated a study of specimens of sputum for neoplastic cells employing a paraffin technic, as well as smear examinations This proved unsatisfactory, and few cases were discovered. In fact, neoplastic cells were found infrequently, even in known cases of bronchogenic carcinoma

The excellent results secured by the use of the Papanicolaou technic in diagnosing carcinoma of the cervix suggested to Dr Herbut that the same method might be employed in a study of bronchial secretions where, previously, failure was almost continuously recorded in sputum studies.[6] Bronchoscopically secured secretions were selected instead of sputum, for secretions are scant in early carcinoma, and sputum, therefore, often is not available It becomes profuse only when there is obstruction with retention of secretion and suppuration and, therefore, is observed more often in advanced stages of the disease Sputum is more dilute than bronchial secretions In addition, cells undergo disintegration more readily By bronchoscopy one could secure adequate secretions from the bronchus in the region of the suspected neoplasm, and these can immediately be fixed and stained

The result by this technic exceeded expectations so that in the first series of cases of carcinoma proved by bronchoscopic biopsy, exploratory thoracotomy, biopsy of metastatic lymph nodes, or necropsy, a positive cytologic diagnosis of carcinoma was made in 22 of 30 cases (73 per cent) In this same group the histologic diagnosis of carcinoma based on bronchoscopic biopsy was made only in 11 cases (36 6 per cent)

There were certain technical difficulties in the earlier cases, but these have been overcome In all suspected cases of carcinoma, routine bronchoscopy was carried out for diagnostic purposes in the customary manner Roentgenogram aided in localizing the lesion to a lobar segment, a lobe, or lung The secretions in the trachea and larger bronchi were discarded since these represented marked dilution and disintegration of cells commonly was noted Secretions were secured in a special bronchoscopic collector from the bronchial subdivisions under suspicion and were sent to the laboratory where smears were made and fixed Later it was found that washings with normal saline solution offered a decided advantage Several cubic centimeters of normal saline solution were instilled through a bronchoscopic aspirating tube into the suspected bronchus, and after one or two minutes the material was reaspirated into a collector and immediately sent to the laboratory

In the upper lobe lesions better results could be secured by placing the patient on the involved side so that, if a right upper lobe bronchus was suspected as the site of carcinoma, the patient was placed on the right side after the bronchoscope had been introduced Saline solution was

then instilled into the right upper lobe bronchial orifice and the material reaspirated, employing curved, flexible-tipped aspirating tubes

Attempts were made in patients with scant secretions to secure the material on a small gauze sponge carried into the bronchus through the bronchoscope, and then slides were smeared from this. It was not satisfactory as the material dried too quickly and could not be fixed properly The present routine, therefore, is to use saline solution in sufficient quantity to secure bronchial washings The material is smeared on slides and while still wet is fixed with equal parts of ether and 95 per cent alcohol and then is stained by the Papanicolaou technic

As a result of this method of diagnosis to supplement bronchoscopic biopsy, it has been possible to diagnose cases of carcinoma which are beyond the range of vision of the bronchologist and in which bronchoscopy is absolutely negative These are the cases that offered a direct challenge diagnostically, for with negative bronchoscopic findings the diagnosis could be made only by exploratory thoracotomy *Too often they were* not brought to a final conclusion diagnostically until other plans of diagnosis and therapy were tried and valuable time lost The cytologic method of diagnosis has brought to the surgeon cases of carcinoma that have their origin in the peripherally situated bronchi, and these, more often, are amenable to surgical extirpation than are the lesions which have their primary origin either in a large bronchus or, at one time peripherally situated, have finally invaded the larger bronchi and appear as an apparent primary lesion in a main bronchus

Results of Procedure

To determine the value of any diagnostic aid it is important to report failures as well as successes The high percentage of bronchoscopic biopsies reported in the literature are impressive, but little account is taken of those bronchoscopically negative cases which, three or six months later, are diagnosed in other clinics as bronchogenic carcinoma

During August, 1947, a follow-up study was made to determine *the comparative value of* cytologic diagnosis and other accepted methods The total number of cases of bronchogenic carcinoma observed up to that time numbered 180 These were known cases of carcinoma based on bronchoscopic biopsy, exploratory thoracotomy, postmortem examination, and cytologic study All cases diagnosed by cytology were corroborated by one of the previously noted methods In 161 of the 180 cases, neoplastic cells were found in bronchoscopically removed secretion (89 7 per cent) The number of positive bronchoscopic biopsies totaled 71 (39 4 per cent) A diagnosis of carcinoma based on anatomicopathologic changes, namely bronchoscopic findings of deformity, stenosis, fixity or rigidity, was made in 42 cases (23 3 per cent) A positive or inferential diagnosis of carcinoma by bronchoscopy, therefore, was made in 113 cases (62 8 per cent), while a positive cytologic diagnosis was made in 161 (89 7 per cent), a difference of practically 27 per cent It is of further interest to note here that a *proportionately larger number of the* bronchoscopically negative, cytologically positive cases were amenable to surgical extirpation than of the bronchoscopically positive cases

The question immediately arises how many false positives were made by cytologic examination? In only one instance was a positive diagnosis of carcinoma made on the basis of finding what were considered neoplastic cells This was an error, as the case proved to be a chronic abscess of the lung Fortunately, the plan of therapy carried out was a suitable one for this *type of case*

Conclusion

The cytologic examination of bronchoscopically removed secretions is presented as a supplementary diagnostic aid to the procedures already employed in the diagnosis of bronchogenic carcinoma This method of examination must not be confused with studies of sputum Its greatest value obviously lies in that group of cases which exhibit roentgen or clinical evidences of bronchogenic carcinoma but which are completely inaccessible to bronchoscopic visualization. It is our opinion that, when more frequent roentgen studies of the chest are made and when all patients with questionable shadows in the lung fields are subjected to bronchoscopy so that secretions may be secured for cytologic examination, the diagnosis of bronchogenic carcinoma will be made earlier, more patients will be discovered who are suitable for surgical treatment, and the prognosis of bronchogenic carcinoma will become more hopeful

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CURE RATE IN LUNG CANCER

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EVERY practicing physician shoulders part of the cancer burden Patients look to us, individually and collectively, for advice and help if they fall prey to this dread disease Until the time when science gives us a preventative against cancer, progress in treatment must depend upon earlier detection and immediate and skillful application of known weapons, principally excision

Cancer in any location, therefore, presents a challenge If the original site is in one of the internal and vital organs, the ingenuity of both the doctor who finds it and of the surgeon who removes it is taxed to the limit Malignant lesions which take origin within the lung probably provide as great a challenge to the profession as any because (1) the lung is an extremely common location for cancer, (2) five-year cure rates are high if localized when treated, and (3) there is a practical way to discover lung cancer before patients know they are sick

The issue of primary lung cancer is being forced upon us by the sheer weight of its frequency Within recent years most practicing physicians have encountered cases in their practice or have had its first hand acquaintance in some way Lung cancer has been shown to be second in frequency to stomach cancer Boyd after evaluating various autopsy series states that "Thus it might appear that bronchial carcinoma is nearly three times as common now as it was before 1920 "[1] Ochsner, Dixon, and DeBakey after a review of the mortality statistics of all persons dying in the United States found that "bronchiogenic carcinoma is increasing more than other malignancies Whereas in the period 1920 to 1936, inclusive, the incidences of carcinoma of the stomach, duodenum, liver, gallbladder, uterus, and skin showed little or no increase, the incidence of carcinoma of the lung showed a progressive rise "[2] Dorn has estimated that over 13,000 persons in this country are under medical care due to primary cancer of the lung and that 8,000 new cases come under observation each year [3]

As short a time as fifteen years ago, lung cancer was always fatal As short a time as ten years ago, it was not possible to read about five-year cures Most clinical discussions concerned themselves with a correlation of terminal findings and symptoms of the later stages of the disease Then came the practical demonstration by Graham, Rienhoff, and Overholt that the entire lung could be used as an excisional unit and was applicable in treating cancer [4-6] It remained to be shown just how effective a weapon excisional therapy would prove to be It was soon found that less than half of the cases studied were suitable for possible treatment, and the finding of an extrapulmonary extension at exploration reduced even more the number in which there was any likelihood of cure For example, in our own series, out of a total of 481 verified cases, only 55 (11 per cent) were found to free of an extrapulmonary extension (Table 1)

Valuable time seemed to have been lost between the onset of symptoms and the date of diagnosis An analysis of the histories of 133 patients seen between 1932 and 1942 revealed that there was an average interval of eleven and three-quarters months between the first symptom and the establishment of the diagnosis The average patient delayed seeing a doctor for three months The first x-ray was not ordered until another three months had elapsed. The diagnosis was established five and three-quarters months later Often the first or second x-ray was inconclusive, and the radiologist would continue re examinations after varying time intervals Not infrequently, a negative bronchoscopic examination would be repeated after intervals of several weeks in an effort to provide an absolute histologic diagnosis A review of the histories of patients seen in 1947 and 1948 showed the interval between the first symptom and the date of diagnosis had only been reduced to ten months

The average patient delayed seeing a doctor for three and eight-tenths months The first x-ray was ordered one and six-tenths months later, compared with an interval of three months in the earlier group However, the diagnosis

TABLE 1 —PRIMARY CARCINOMA OF THE LUNG 1933 TO 1948

	Number of Cases	Operative Mortality
Total	604	
Verified	481	
Unverified	123	
Explored only	127	15 (11.8%)
Resected	162	29 (17 9%)
Without extrapulmonary extension	55	
With extrapulmonary extension	107	
Total thoracotomies	289	44 (15 2%)

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was not established until four and six-tenths months later

Delays in diagnosis have been reported in other series. Bjork states that in an analysis of 112 cases who passed through the Brompton and the Royal Cancer Hospitals in London as recently as March, 1944, to June, 1945, an interval of eight and four-tenths months elapsed between the onset of symptoms and the time of diagnosis [7] Patients on the average asked for help three and four-tenths months after onset of symptoms The doctor, however, treated the patients under an incorrect diagnosis for an average period of five months.

In times past there can be some forgiveness for the long delay in the establishment of the true diagnosis The following factors influenced the time factor in reaching a diagnosis

1. There was an understandable lack of interest in what used to be a hopeless form of cancer

2. The disease fails to produce a pathognomonic early symptom When the first symptom does appear, it is usually one of the common complaints encountered in cigarette smokers or people with chronic colds, sinusitis, bronchitis, or bronchopneumonia Chronic cough frequently is the only symptom for a long interval Such developments as the production of expectoration, wheezing, or even chest discomfort are not alarming and, therefore, do not stimulate the patient or doctor to quick action.

3 In the past our clinical concept of lung cancer was based on knowledge of the disease in its later stages The so-called characteristic symptoms, such as hemoptysis, chest pain, dyspnea, and weight loss usually do not appear until the lesion is advanced or out of bounds Waiting for such symptoms to develop and then forcing the issue has contributed to many delays

4. Reliance has been placed on the element of time between x-ray films to add greater certainty to the radiologic opinion The behavior of abnormal x-ray densities over a period of time aids greatly in the evaluation of the tuberculous or inflammatory lesion. The loss of time which has seemed to be necessary to work out an absolute x-ray diagnosis is of little consequence in many forms of chest disease Intervals of weeks between serial films when x-ray changes are due to bronchi being blocked by tumor is quite a different matter

5 Secondary infection distal to the lesion frequently takes place, since most tumors soon cause segmental or lobar bronchial obstruction This has led to many errors in diagnosis and delay Unresolved pneumonia, lung abscess, bronchiectasis, empyema, or pleurisy have all masked an underlying tumor

Although delays in suspecting and apprehending lung cancer could be justifiably excused in the past, future generations of victims may not be so tolerant of our methods of sorting out potentially fatal lung disease and finally deciding on curative treatment The orthodox method of waiting for symptoms, then waiting for a failure of the usual remedies to correct them, then the delay that seems to have been necessary to work out the differential diagnosis has not produced results

Difficulties have also been encountered in making a substantial shift in the preponderance of late to early cases of cancer of the esophagus, stomach, colon, prostate, or other internal organs These are well known. The medical profession has had to depend upon (1) a lesion of sufficient age to produce symptoms, (2) symptoms of sufficient severity to warrant a call on the doctor, (3) signs sufficiently obvious to excite the doctor to arrange for special diagnostic procedures, and (4) positive evidence of cancer by special tests

In a recent report on carcinoma of the stomach by Welch and Allen it appears that by the time symptoms induced patients to ask for help and by the time the doctor instituted treatment, only half could be resected, and five-year survivals were only 7 per cent of the total seen [8]

Now we are in the early stages of development of visceral thoracic surgery It can already be shown that five-year survival rates following pneumonectomy for lung cancer are as high as the figure for gastrectomy for stomach cancer In the future we should do much better for the patients suffering from lung cancer There are reasons for optimism concerning the future of lung carcinoma based on present knowledge and methods of combating it

The case-finding program now used in tuberculosis work is immediately available For some time phthisiologists have realized that the only solution for early diagnosis in tuberculosis rests with finding asymptomatic or silent disease Down through the years, about the best record that could be shown by waiting for symptoms and then for a differential diagnosis was around 15 per cent for minimal disease This meant that, when treatment was started, approximately 85 per cent of all cases were in the advanced stages Screening the healthy population for silent yet active disease has reversed this ratio Eighty-five per cent of the cases are now being discovered during their early and therefore more favorable stage

The mechanism for screening larger segments of the population is being rapidly set up Many hospitals are routinely x-raying all admissions Mobile units are busily engaged in industrial surveys, and entire communities are being used for pilot studies The practice of routine in-

duction and separation x-rays for military personnel in the last war acquainted every family in this country with the concept of searching for silent disease The stage is all set for screening for other types of lung disease The same case-finding program that has been designed for tuberculosis will automatically uncover many cancers of the lungs In order to be more fruitful, emphasis must be placed on the older age group, and the screening should be repeated each year Once abnormal shadows are spotted, modification of the sorting out process may have to be made. Time cannot be lost in properly identifying lesions since early cancer must be entertained as a possibility

Will early lesions be detectable in survey films? Fortunately, all primary lung cancer is bronchogenic in origin. Furthermore, approximately 80 per cent of the lesions are situated in a lobar or segmental bronchus This means that, because of their strategic location, most small lesions will soon cause partial or complete obstruction Very early in the course of the disease changes in the density of the entire segment or lobe take place Segmental emphysema due to the check valve mechanism of the bronchus-occluding lesion will be seen in some films (Fig 1) Soon atelectasis of the segment develops when the obstruction is complete This produces even more obvious a sign of trouble These changes are the telltale evidences which give away the small and early tumor Small pea-sized or lima-bean-sized lesions within the hilar zone, whose shadow might be lost because of the superimposed densities of great vessels, bronchi, and lymphatic glands, need not be recognized per se The secondary effects in the periphery of the segment supplied by the occluded bronchus are sufficient to call the patient in for further investigation

The minority group of cancers which take origin in bronchi of lesser size in the periphery are out far enough in the lung field so that the tumor itself, even of minute size, will cast a shadow that can be picked up in the survey film Therefore, there is good reason to believe that the screening process can provide a practical method of finding lung cancer months or years in advance of symptoms, and for many patients this will mean discovery during its localized stage

The inherent possibilities of screening silent chest disease and the influence it will have on successful management present a real challenge to our profession Every doctor should be aware of and accept this new obligation It is twofold first—to support in every way possible the mass survey work that is in progress The plan should be extended through arrangements with radiologists in hospitals or their private offices to include the screening of each doctor's own adult

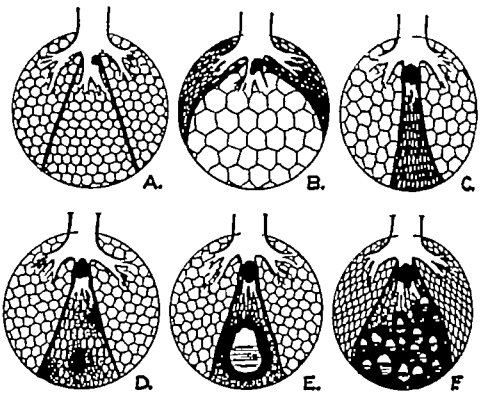


FIG 1 Diagrams which indicate strategic location of the great majority of bronchogenic carcinomata The secondary effects magnify a small lesion and in that way create telltale abnormal shadows on the chest film *A* Relation of lesion to bronchopulmonary segment or subsegment *B* Partial obstruction with check valve mechanism causing segmental emphysema *C* Complete obstruction causing segmental atelectasis *D*, *E*, and *F* Superimposed secondary infection with pneumonia, abscess, or multiple inflammatory lesions.

patient population once a year Second to follow through with immediate supplementary studies of abnormal densities so that they may be properly labeled All instances of abnormal lung or hilar shadows showing up in survey films demand conventional fluoroscopic and roentgenographic studies Then if there is any reasonable likelihood of cancer, additional studies should be arranged for without delay—cytologic examination of the sputum (Papanicolaou), bronchoscopy, and exploratory thoracotomy

The earlier and the more favorable a cancer is for treatment, the more difficult it becomes to obtain tissue for histologic verification before thoracic exploration In many early cases the lesion will not be visible or suitable for bronchoscopic biopsy The correlation of surgical pathology and the cytologic examination of the sputum has not been carried out in a sufficient number of early cases to appraise its true value Experiences with this diagnostic method do show that it is extremely useful in verifying a presumptive diagnosis today However, the number of patients in the various series so far reported are patients who are in the symptomatic or advanced stage of the disease As with all laboratory procedures, a positive test gives assurance to the surgeon prior to operation, but negative tests do not guarantee the absence of an early cancer Therefore, if the x-ray has provided presumptive evidence of a peripheral tumor or of segmental or lobar bronchial obstruction, exploration should be resorted to as the final court of appeal



FIG 2 X-rays and lung specimen of Mr E B, age sixty-four Routine hospital survey films taken when patient was admitted for study of thrombosed vessel of leg No chest symptoms were present Note primary carcinoma which was found in superior division of right lower lobe



FIG 3 X-ray and lung specimen of Mr J J C, age sixty-four The lesion in the single postero-anterior view was caused by an epidermoid carcinoma, grade III Note small size of the lesion in the surgical specimen and the much larger area of increased density appearing in the chest film.



FIG 4. X-rays and lung specimen of Miss C B, age fifty-six. Routine chest films taken in doctor's office Patient came in complaining of weight loss but had no symptoms relating to the chest Bronchoscopic and cytologic examination of the sputum was negative An epidermoid carcinoma, grade III, with involvement of mediastinal glands was found upon exploration

Efforts to speed up early discovery of primary carcinoma of the lung will be rewarded Two facts support this statement. First, five-year survival rates for patients treated by lung resection prior to the finding of an extrapulmonary extension of the growth are high. Second, the immediate risk of resection of the lung has been brought down to a reasonably low level.

Although it is necessary to go back to the early days of visceral thoracic surgery to appraise end results of resection for cancer, it is significant that 40 per cent of those patients in whom there was no demonstrable evidence of cancer outside of the lung survived for a period of five or more years (Table 2) This is most encouraging, for these patients had symptoms, and undoubtedly the treatment was carried out at a time definitely later than would have been the case if they all had been discovered when their lesions were silent Two of ten patients who had lymph node metastases only have lived more than five years (For specific illustrations of the authors' cases, see Figs 2, 3, 4, and 5)

As the mechanism of discovery is being accel-



FIG 5 X-rays and photograph of Mr F R, age fifty-five. The x-ray was taken as a part of a routine examination in a doctor's office Patient had had an attack of grippe which "hung on" The lung with an early cancer was removed eight weeks after the onset of symptoms. The patient is well now, nearly five years later

TABLE 2.—PRIMARY CARCINOMA OF THE LUNG 1932 TO 1943

	Number of Cases	Operative Mortality	Five-year Survival
Total	234		
Verified	190		
Unverified	44		
Explored	58	9 (15.5%)	
Resected	41	9 (21.9%)	
Without extrapulmonary extensions	20		8
With extrapulmonary extension	21		3
Total thoracotomies	99	18 (18.1%)	

erated, technical problems of anesthesia, dissection, postoperative care, and the administration of the antibiotics have contributed greatly to the safety of the operation For example, in the period 1932 to 1943 the operative mortality was 21 9 per cent in all cases of total lung resection for all types of cancer The authors' mortality in the past two years has been reduced to 11 per cent (45 total lung resections, five deaths)

Summary

The lung is a common site for the development of cancer Until science gives us a preventative drug, success in management must depend upon discovery in the pre-extension days of the growth Annual screening of the healthy adult population by mass radiography provides a method of detecting the lesion during its silent stages For many patients this will mean the discovery of the cancer before it has become out of bounds

Wide excisional therapy is available in the performance of pneumonectomy with mediastinal glandular dissection The operation is attended with a reasonably low risk and practically no disability or deformity When this operation has been carried out in patients whose lesion was found to be localized, there has been a gratifying five-year survival rate

Every practicing physician is presented with a challenge It is possible for him to find potentially serious tumors of the lung in his own patient population by arranging for annual logic screening This first obligation is fol by two others, the immediate and proper i fication of the various lesions spotted i screening process and then, finally, defi treatment for those whose lives depend upon action

In the identical period of the above study (1932 to 19 patients were treated by *pulmonary* resections for tumor nosed as bronchial adenoma infiltrative bronchial adeno *malignant* adenoma Some authors consider these tumor primary carcinomas (adenocarcinoma, grade I) and h *them* in their cancer statistics From a clinical point of they should receive special consideration. For example 27 patients have been followed recently and there ha *only one late death* This patient died of metastasis whi similar characteristics to the *bronchial tumor* One p has not been followed Ten of the remaining 25 pa have lived five to fifteen and a half years after operatio the adenoma series there were no operative deaths ther since immediate and late results are so totally different 'so-called adenoma group we have not included th *the above paper on true cancer of the lung*

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Discussion on Symposium

Arthur Q Penta, M.D , *Schenectady* —The problem of bronchogenic carcinoma has been so completely and ably presented here that there is very little that can be added from the standpoint of discussion There are certain points, however, brought out by the speakers, which to me are important enough to warrant re-emphasizing Dr Auerbach stated that in his opinion the increase in bronchogenic carcinoma was rather more apparent than real. It is true that with special diagnostic procedures available today the diagnosis of bronchogenic carcinoma has been greatly facilitated Also because of the fact that there has been a steady increase in longevity, there are more potential victims to fall heir to the disease Recently, a very well-known pathologist told me that if we lived long enough we would all develop some form of carcinoma. True as this may be I feel that the increase in bronchogenic carcinoma is real It is interesting to note that in t past ten years, during which period the incidence bronchial carcinoma has been high, we have a witnessed the greatest industrial progress in t history of our country The workers of today e exposed to many more carcinogenic agents than th were in the past. When discussing the theories carcinogenesis, we must not overlook the fact th daily inhalations—for example, of chemical irritan such as found in tar and petroleum products, t many volatile acids produced from cigarette smo ing, the daily inhalation of air heavily saturated wi carbon particles from the exhausts of automobiles may lead to a chronic bronchial irritation fro which may eventually result cancer of the lung

The high incidence of bronchogenic carcinoma i men as compared with that in women has in recer years received a great deal of attention in th

literature. Had World War II lasted thirty years instead of nearly four, I believe we would have seen a greater increase in cancer of the lung among women since, in all probability, many more women would have been engaged in industry for a longer period of time, also the ever-increasing popularity of excessive cigarette smoking among women will not only result in the increase of chronic bronchitis and bronchiectasis but also in cancer of the lung

Regarding Dr Hayes' presentation on the clinical aspects of bronchogenic carcinoma, I should like briefly to make one comment regarding symptomatology It is well for the busy practitioner to remember that the symptoms produced in primary carcinoma of the lung will depend to a great extent on the degree of bronchial obstruction The most important early symptom is a dry, hacking cough, accompanied by a slight bronchial wheezing Physical examination during this early stage may reveal a few coarse moist rales and asthmatoid-like wheezing over the involved pulmonary area Roentgenographic studies of the chest during this stage may be entirely negative, since the tumor is not large enough to cast a shadow At this time the patient usually seeks medical advice because of the troublesome cough and wheezing It has been the author's experience, when obtaining a history of these patients referred for bronchoscopic examination, that they invariably had been under symptomatic treatment for a long period of time and had shown no improvement in their condition It has been repeatedly stated by that great teacher of bronchoscopy, Dr Chevalier Jackson, that "all that wheezes is not bronchial asthma." The importance of this one symptom alone cannot be too strongly emphasized. In a series of 44 cases of bronchial carcinoma, bronchoscopically examined by the author during the last five years, it was astonishing to learn that 15 of the patients, because of recent wheezing, cough, and slight dyspnea, had been previously treated for bronchitis or bronchial asthma Every patient, particularly of the cancer age group, presenting this chain of symptoms, should immediately be x-rayed and should have the benefit of a diagnostic bronchoscopy The appearance of blood-streaked sputum or frank hemoptysis are also frequent early symptoms and are usually due to the trauma of coughing and ulceration of the tumor mass. Pain, as in other malignancies in other parts of the body, is definitely not an early symptom In a recent study of the subject, Overholt calls attention to the fact that approximately three-fourths of all primary lung tumors are situated in the major bronchi so that they are within range of bronchoscopic vision His findings are in complete agreement with C L Jackson, who stated in a recent article that bronchoscopic biopsies will be positive in 75 per cent of the cases of bronchial carcinoma In the series of 44 cases examined by the author during the past five years a positive biopsy was obtained in 32 cases This high percentage of positive biopsies is definite evidence that bronchoscopic examination plays an important role in the diagnosis of lung carcinoma

One of the most significant advances made in the early diagnosis of bronchogenic carcinoma is the procedure described by Dr Clerf in the cytologic examination of exfoliated tumor cells from bronchial secretion It is astounding that Dr Clerf and his coworker, Dr Herbut, were able to make a positive diagnosis in over 89 per cent of these lesions which were beyond the range of bronchoscopic vision Since this method has been employed at the Jefferson College Hospital, Dr Clerf has been able to increase the total percentage of positive diagnosis by fully 27 per cent

Dr Clerf also speaks of some technical difficulties involved in the cytologic examination of aspirated bronchial secretion From my own experience I can safely say that in order to reach any point near the results obtained by Dr Clerf, it is highly important that there be a close cooperation between the pathologist and bronchoscopist Today the average pathologist in a busy general hospital has all that he can do to carry out the routine laboratory work and to attend to the many executive details necessary in directing his department This leaves him very little time to engage in special work, such as is required for cytologic studies Then, too, this type of examination offers a challenge to the ability of the examining pathologist The diagnosis of cancer cells in smears is not always easy Oftentimes the special stained smear will show only one recognizable cancer cell, and the examiner in many instances will be reluctant in giving a positive diagnosis Specially trained personnel is required before reliable diagnoses can be made - The bronchoscopist must also have a thorough knowledge of the segmental anatomy of the lung He must be able from the roentgenographic study of the chest to determine which segment of the lung is involved. Dr Clerf stated that in an effort to increase the number of positive diagnoses in pulmonary lesions which exhibited roentgen appearance of carcinoma, but in which the bronchoscopy proved negative, bronchial lavage with examination of the aspirated secretion has proved of great value in establishing the diagnosis of carcinoma In my own practice I frequently encounter infiltrating lesions in the apical regions of the lungs which are diagnosed as tuberculous in character but later turn out to be carcinoma. How about those infiltrating lesions at the base of the lung which resemble bronchiectasis but later turn out to be carcinoma? The point that I wish to make clear is that there is no definite early characteristic radiographic appearance of carcinoma of the lung If we are to diagnose this condition early, in the stage of operability, we should routinely carry out a cytologic examination of all patients in the cancer age group who are referred for bronchoscopic study In certain instances where the chest roentgenograms have shown a definite tumor-like shadow but in which the bronchoscopic examination was negative, I have recommended exploratory thoracotomy in an effort to establish the diagnosis In the hands of well-qualified thoracic surgeons this procedure has no greater mortality than exploring the abdominal cavity There is much to be said for this type of procedure in establishing an early diagnosis

Walter F Bugden, M.D , *Syracuse* —These four

papers have thoroughly covered the subject under discussion

Dr Hayes has very systematically pointed out the many symptom combinations that may occur with bronchogenic carcinoma and the usual steps one must take to make a proper diagnosis I feel that a good working assumption is that all unexplained x-ray lesions in patients over thirty-five are carcinomatous until proved otherwise The lesion that presents as a segmental pneumonitis is the most disturbing to me Is it simply inflammation or is it carcinoma with infection distal to the tumor? This type case causes me considerable concern My present policy is one that might be thought too aggressive by some I advise three or four weeks on antibiotics, and if the subsequent x-ray is not virtually clear, exploratory thoracotomy should be done Most cases of pneumonitis will clear in three or four weeks I agree that chronic nonspecific pneumonitis occurs not infrequently, but just recall to your minds all of the carcinomas that you have seen treated for more than six weeks as unresolved pneumonias, until they reached the inoperable stage

A gem that appeals to me came from a good roentgenologist who said, "I never make an x-ray diagnosis of pneumonia until the subsequent films show clearing" If only more physicians appreciated the full meaning of that statement, our operability per cent would climb If a noncarcinomatous lesion is occasionally explored and resected, there is no need for apologies, the patient was best served by such alertness

Dr Clerf and his pathologist would probably be able to establish a cytologic diagnosis more often than many thoracic clinics His clinic reports 89 per cent positive cell studies out of 180 prove cases Our group has not approached that figur

However, since this technic of cell study is vu nerable in the hands of others, I take the stand th one or two or three negative bronchoscopic ce studies does *not* exclude cancer, and we again con to surgical exploration as our definitive diagnost measure Dr Clerf's contribution to our diagnost armamentarium is a real one on the side of positiv biopsies, but I repeat that I am not yet sold on th actual negativity of the negatives

Dr Auerbach has given us a concise picture of th pathology involved In my own series I have see more squamous carcinoma than undifferentiated c adenocarcinoma combined I have never had on case of the "oat cell" type that I could resect, but have observed worthwhile symptomatic palliation i some "oat cell" cases with deep therapy

I should like to mention lipiodol instillation onl to condemn it It may confuse future x-ray inter pretation

My feelings are much the same as Dr Overholt's I feel optimistic about the future of bronchogeni carcinoma because mass radiography of the chest i so practicable And as soon as the full significanc of early segmental changes are better appreciate as being so often due to bronchogenic carcinoma, th better our surgical statistics will be

I should like to enter a plea for lobectomy versu pneumonectomy in selected cases for physiologi reasons Dr E Graham has opposed this on th grounds of it being poor cancer surgery, comparing it with simple mastectomy versus radical mastec tomy I don't think the analogy is a fair one In gastric carcinoma we are contented with partia gastrectomy which is a better comparison

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DR. JONES SAYS—

A lady that reads these emanations of mine "This time of year," she said recently, "shouldn't you be saying something about colds? You usually do" She, maybe, thought I was getting forgetful No, it wasn't that. It's some like Grandpa Pepper said about going hunting "I go once or twice a year," Grandpa says, "but I never seem to hit nothin', so I always wonder if it's worth while." But, possibly, if we keep shooting, our aim might improve

We used to hear debates over whether colds came from wet feet, drafts and so on, or from germs By now I guess most everybody's got that straightened out It's ordinarily a combination of both. It's "germs" that cause it—a virus, usually aided and abetted by various bacteria that're hanging around, but—especially folks that're indoors mainly —getting wet and chilled lowers their resistance to the virus. Now that they've isolated what seems to be *the* virus they may develop a protective vaccine that'll really work.

For all our precautions and in spite of the progress of science, it'll be a long time before the "common cold" will be uncommon In the meantime there's one thought with no if's attached to it. Colds are unpleasant but it's the complications that're dangerous.

When we get a cold, the best way to avoid complications is to lay low, preferably in bed, 'til the acute stage is over And we'll be unselfishly keeping our virus to ourselves —*Paul B Brooks, M.D , January 17, 1949*

THE ROLE OF PHYSICAL METHODS IN DIAGNOSIS

HERBERT KENT, M D , New York City

(From the Department of Rehabilitation and Physical Medicine, Third Division, Bellevue Hospital)

THIS topic is so general in its scope that the discussion must be limited to physical methods as used in physical medicine, and, more particularly, the diagnosis of peripheral vascular and neuromuscular disturbances will be described.

Knowledge of the status of the peripheral circulation is often the most desirable, and a number of physical methods have been devised toward this aim. Consequently, we have many approaches depending on the information necessary for a clinical conclusion

The first is the oscillometer, and because of its importance further details in its use will be mentioned. The oscillometer is a device for demonstrating volume and pulsation changes in the extremities It is essentially a sphygmomanometer of the aneroid type and may also be used in blood pressure determinations In addition, it can measure the amplitude of arterial pulsations at various levels of a limb

This instrument is more sensitive than the palpating finger The thrust imposed on the peripheral vessels by the cardiac cycle produces a volume increase depending on the gradient of the vascular tree The instrument can detect this alteration as transmitted by the great and small arteries in the limb When vessels are of large diameter, as in the upper thigh, the volume increase is naturally greater In the lower portion of the leg, the smaller volume is reflected in a shorter excursion of the dial pointer on the instrument This is a valuable aid in arterial disease, notably in thromboangiitis obliterans and arteriosclerosis During the course of disease it permits quantitative studies In limb surgery, sites of election for amputation may be determined readily by utilizing the oscillometer

Correct technic for using this instrument is most important, or misleading information may be obtained It is necessary to emphasize that patients must be examined at rest in the recumbent position with no pillow and at the same level cross section of the limb (Fig 1) Time of day is also an important factor, since readings may vary in the morning from those taken at night Additional factors to be considered are cuff pressure and room temperature

Oscillometric readings are taken by elevating the needle pointer to 50 mm above the patient's systolic pressure The pressure is allowed to fall 10 mm at a time, as is done with a sphygmomanometer The button is then depressed on the side to determine the oscillation of the pulse at that pressure (Fig 2) This activates a more sensitive device for recording the pulse wave The maximum excursion of the pointer and the pressure are read When this point is passed, there is no need to follow the pressure to zero

The greatest number of units passed at each swing of the pointer gives us what is known as the oscillometric index This index is important only in so far as it allows comparison with the opposite extremity or with the normal As an aid to diagnosis, it is this comparison or relative value which gives us the information regarding the arterial sufficiency of the part, normal values having been established

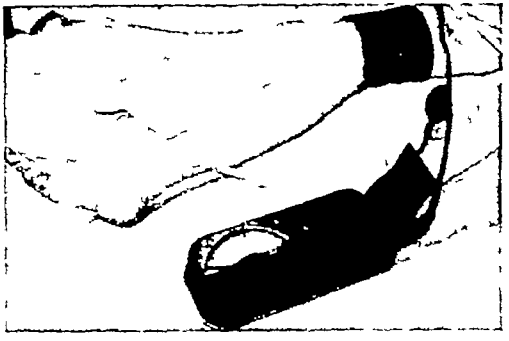


FIG 1 Oscillometer attached to lower third of thigh and inflated

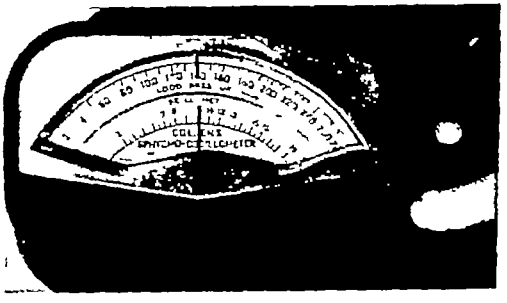


FIG 2 Blood pressure cuff applied Depress the lower right button to determine the oscillation of the pulse at that pressure.

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Session on [illegible] 10, 1942

An average "normal" oscillometric index taken, for example, in the lower extremities, is as follows

Thigh	
Upper third	14
Middle third	12 ± 20 per cent
Lower third	10
Leg	
Upper third	7
Middle third	5 ± 20 per cent
Lower third	3

However, to repeat once more, it is the relative change that gives us a criterion to establish insufficiency in a limb

Another means of measuring blood flow in the peripheral arterial system is by the use of the electrothermometer [1] This method is indirect, but the advantage is its applicability to the ambulatory as well as to the bed patient It can readily be carried out by the physician in his office, as compared to the other methods which have been employed in volume blood flow studies

There are many such devices Some may be read directly in fahrenheit or centigrade degrees, others require conversion Essentially, they contain two thermocouples, one of which measures the temperature of the skin with the other used as a constant This latter may be immersed in a thermos flask of known temperature, or a cold junction may be used The thermocouple utilizes the electromotive force generated when the junction of two dissimilar metals are maintained at different temperatures and is measured by a galvanometer More usually the principle of the Wheatstone bridge is applied Exact calibration is essential

The technic is relatively simple if attention is paid to certain factors as room temperature, equal skin contact, and skin dryness One area of the skin is compared to a similar area on the opposite side, and repeated readings are taken

Landis and Gibbon initiated a test for the differentiation of arterial impairment in a limb,

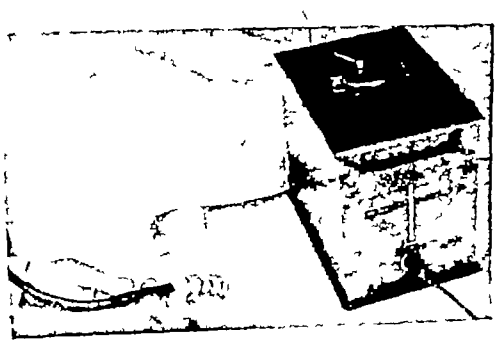


FIG 3 Electrothermometer—in use during Landis-Gibbon test

either on a functional spastic or an organ obliterative basis [2] The procedure is to dete mine digital temperatures of the great toe befo and after immersion of the hand and forearm water at a temperature of 115 F (46 1 C) f twenty minutes (Fig 3) Organic arter disease is inferred by the absent or slight rise temperature indicating gross involvement of t vessels A normal rise, i e , to 95 F (35 C), su gests vasospasm An intermediate rise indicat the likelihood of partial obliterative diseas Another important diagnostic use of surface ten perature determinations is the evaluation sympathetic nerve block, vasodilator drugs, an physical therapy procedures

A further approach to knowledge of the vesse at the periphery is possible through the phenom ena of fluorescence Fluorescein (resorcino phthalein) is a dye which is fluorescent whe viewed in the dark beneath an ultraviolet gener tor covered with a glass filter containing nick oxide (Wood's Filter) [3] This phenomenon ca be used for circulation time studies and in pr viding additional information in patients wit peripheral vascular disease [4]

In this method the dye is injected intrave nously For determining the circulation tim the completion point is indicated by the sudde appearance of a bright, yellowish fluorescence o the inner margin of the eyelids and with brigh vertical lines in the tiny capillaries of the iri In peripheral vascular disease, the normal glo may be absent in that area of skin served by a artery which contains an embolus or is scle rosed

Apart from instrument utilization in diagnos ing cardiovascular conditions, various methods o exercise have been employed For example, in doubtful case of angina the patient can be exer cised with the view of bringing on the distress This can be performed by having the patien walk upstairs until pain is produced

Claudication time may be obtained by measur ing the time taken to produce the typical distress of pain in the muscles of the calf Likewise, anginal attacks may also be evoked by having the patient breathe an atmosphere poor in oxygen content (10 per cent) for ten to twenty minutes This also can be a useful diagnostic method for potential cardiacs who request an opinion as to the advisability of air travel

In addition to exercise tests, postural tests for circulatory efficiency have been suggested A simple and rather useful test in circulatory disease diagnosis is postural effects on the color of the skin of the extremities In the lower extremities, a simple test of circulatory impairment is to have the recumbent patient elevate his feet above his head Skin color change is watched for after a

suitable interval Then the patient hangs his legs over the edge of the table or bed Normal color should return in fifteen seconds Arterial circulatory impairment in the upper limbs may be detected by clenching the hands ten times when elevated above the head If the skin of the volar surface of the hands is blanched excessively and uniformly, generalized impairment is suggested Pressure on the radial artery at the wrist and on the ulnar may give a clue as to which vessel is diseased Patchy or irregular blanching indicates local occlusion, e g, in the digital arteries.

Another type of test, employing cold as a stimulus to the vascular system, is the cold pressor test.[5] This is useful in early hypertensive vascular disease

The rise of blood pressure (mainly reflex in origin) produced by cold is determined as follows the subject rests in the supine position for twenty to sixty minutes in a quiet room so that his pressure falls to basal level A sphygmomanometer cuff is wrapped around one arm One hand is immersed in iced water (at 4 C) to a point just above the wrist The blood pressure is then read at thirty- to sixty-second intervals The hand is removed from the water, and blood pressure readings are taken every two minutes until the basal level is regained In normal subjects, the maximal rise occurs after thirty seconds, and the rise is over in two minutes A rise exceeding 20 mm. of mercury systolic or 15 mm. of mercury diastolic is an excessive reaction.

As we have seen, knowledge of the state of the circulatory system has been sought through devious routes Most of these have employed visual means A further approach can be instituted by way of special photography

Since the human eye can only capture and respond to visible radiation in the form of images, a method has been developed to extend our range into the infrared zone by means of photography with infrared sensitized plates It is now possible to study the superficial and not too deep vascular system.

Most of the technics which have been evolved relate generally to the arterial side of the cardiovascular system. Infrared photography, therefore, has a particular application to the venous side of our conducting system, a major portion of which is superficial in the body Because of this, a simple means of studying the radiant transmission by the skin is offered to us By the appropriate technic, varicose veins, skin tumors, superficial vessels in the breast and abdomen of pregnant women, and progressive thrombosis can be readily outlined In cases of suspected early obstruction of the vein, the collateral circulation can be demonstrated.[6] Also, some



(By courtesy of H. L. Gibson Medical Radiography and Photography 1945)

FIG 4. *Patient, age sixty-two years, shows very early Paget's disease of the left nipple* Note indications of increased blood supply to the tumor region

estimation of the healing potentialities of indolent ulcers or skin areas for grafting may be gathered *this way In the early diagnosis of skin malignancies* or neoplasm in the underlying structures, as Paget's disease of the nipple, we can expect zonal venous markings which are abnormal (Fig 4) This increased vascularity should make us *suspicious enough to ask for a biopsy*

Physical methods which can be employed in vascular problems depend upon what segment of the circulatory system one desires to investigate Similarly, the nervous system can be objectively studied In this case, the principal means is to examine the electrical reactions of nerve and the electrical activity of muscle

The principal use of electricity in the diagnosis of nervous disease is to afford confirmatory evidence (*a*) when a lesion of the lower motor neuron is present, and (*b*) in rare diseases of muscles, e g, myasthenia gravis

The electrodiagnosis of muscle and nerve is carried out by means of the faradic (alternating) and galvanic (direct) currents The faradic current causes a tetanic muscular contraction as long as the current is in motion. The galvanic current only causes a contraction when the current is made or broken but not when it is passing through the muscle Either current is usually applied over a motor point, i e, supposedly where the nerve enters the muscle, but may be applied where the best response is obtained It must be borne in mind that various electrical reactions are produced in lower motor neuron lesions, myopathies, and other rare conditions They do not, as a rule, occur in upper motor neuron lesions

In muscle or nerve injuries, the electrical *reactions are of extreme importance in diagnosis* and prognosis of these components When a nerve undergoes Wallerian degeneration, an

altered electrical reaction is obtained which is known as the reaction of degeneration or, simply, R.D Since the reaction of degeneration (R D) gives us knowledge of the conductivity of impulses in the peripheral nerve fiber, a clear understanding of its significance bears repetition

Reaction of degeneration can be either partial or complete Since some individuals prefer a classification of full, partial, or absolute, this may be mentioned However, for the sake of simplicity, degrees of partial degeneration are grouped under this latter term The different stages of nerve degeneration will cause variegated responses depending on the amount of damage to nerve cells or fibers Also, where partial R D is present, greater skill and considerable experience in the interpretation of the findings is necessary It must be emphasized, furthermore, that for degeneration to occur, sufficient time must elapse, otherwise erroneous values are obtained Simply stated, if the nerve has undergone complete degeneration, the muscle shows (*a*) no response to both faradic (a c) and galvanic (d c) currents and (*b*) repeated negative response after a suitable interval, i e, one year

Partial R D may be present in a nerve undergoing degeneration up to two weeks after the initial injury and complete R D from about fourteen days onward The R.D, irrespective of degree, can be considered to be partial when there is a diminished response to faradic and/or galvanic stimulation. Many variations of this are seen, e g, the myopathies are diminished quantitatively, in myasthenia gravis there is a slow failure to contract after application of the faradic current, in myotonia congenita the contraction continues after the cessation of current, in tetany there is an increased excitability Generally speaking then, the characteristics of partial R D are (*a*) loss or diminution of response to faradic (a c) current and (*b*) sluggish response to the galvanic (d c) current The significance of reaction of degeneration is that partial R.D cases may recover, complete R.D cases have a relatively hopeless prognosis as regards the recovery of the particular nerve

Another and more accurate method of following degenerative changes in nerves is measurement of chronaxie Chronaxie is the time during which a current, twice as great as the rheobase, must flow to excite a muscle Rheobase is the weakest direct current in volts which will activate a muscle indefinitely In addition, substantial information in neuromuscular disorders can be sought by means of strength-frequency curves, as these electrical determinations are both sensitive and quantitative [7] Absolute values can be obtained, provided the technic is standardized Nevertheless, there are greater possibilities of error, and consequently, these should be regarded as laboratory procedures Strength-duration and strength-frequency curves have been found to consist of more than one component by utilizing extremely sensitive apparatus One of the most reliable guides of muscle excitability is the strength-duration curve Its advantage is that the curve can show the commencement and changes in innervation of muscle excitability before being observed clinically

A comparatively new method of electrodiagnosis has come into vogue which makes use of the electromyograph [8] Many workers have shown that voluntary muscle tissue demonstrates electrical activity When the muscle becomes fibrosed, none can be obtained Since the potentials are low in voltage, they consequently require considerable amplification. To record these, an ink-writing device can be employed, or they can be reproduced in visible form on the fluorescent screen of a cathode-ray oscillograph and then photographed Needle or surface electrodes are used to detect this activity

Using these technics, characteristic data have been secured In addition to the characteristics of denervated muscle, normal kinesiology of individual muscles has been determined [9] As an aid in the diagnosis of peripheral nerve injury it has been found that fibrillation action potentials in the absence of motor unit action potentials are indicative of a complete lower motor neuron lesion When muscles show a complete reaction of degeneration, this information can be of considerable value in prognosis When the injured peripheral nerve commences to regenerate, a combination of fibrillation and polyphasic motor unit action potentials appear Fibrillation remains vigorous until early reinnervation and then disappears By this method we can determine the electrical activity of muscle before there is a change in the R.D

Localization of nerve root injury due to compression may prove most useful Furthermore, data for differential diagnosis in various neuromuscular disorders, e g, Parkinsonism, progressive muscular atrophy, and amyotrophic lateral sclerosis, can be made available This method has also been of great help in following the effects of medicaments injected into the body, e g, curare in poliomyelitis, intravenous procaine in muscle spasm, etc

Two relatively recent advances have been made in regard to blood diagnoses the electrophoretic property of the blood has been explored, and the use of radioactive isotopes has and is being investigated Electrophoresis or the migration of particles in fluids has led to the fractionation of blood serum Using this method, chemical and physiologic experiments have been qualitatively

and quantitatively analyzed The great hope is that some day it may prove particularly useful as a means of isolating and purifying viruses

Radioactive isotopes or "tagged substances" are being made use of at present in diagnostic and medical research. A long list of these is available, carbon, phosphorus, iron, sodium, and iodine are a few that can be mentioned which have given valuable information in metabolism as well as cancer studies Three principal technics have been employed (1) autoradiographic, where tissues containing tracers are photographed, (2) in vitro method, where the residues are measured for activity, and (3) in vivo method, where the Geiger counter is used Using these methods hitherto unapproachable problems can now be attacked.

Since the Geiger counter has been mentioned, perhaps a few remarks concerning its use may be made here. This method consists of an electrical means of counting alpha particles The original apparatus was modified for cosmic, x-ray, and gamma ray studies A special counter tube was devised and placed in a circuit arrangement with an electrometer This tube is essentially a diode filled with gas at a low pressure The gas content and voltage across the tube are so adjusted that entry or release of a single charged atomic particle such as an electron, proton, or alpha particle between the electrodes produces ionization. This causes a rapid discharge of a comparatively large quantity of electricity across the interelectrode space The manifestation can be visualized or made audible

Perhaps one further word may be mentioned here while on the topic of atomic medicine As we enter the new age of atomic physics, something has been shown as to how radioactive isotopes or "tracer substances" are being employed in the study and investigation of both physiologic and pathologic processes Their maximum aid in diagnosis is yet to be realized

The Geiger counter was the first practical tool for the detection of radioactivity Simpler and more convenient forms, as the Minometer Ionization Chamber, are being used by those handling or coming in contact with deleterious radiations An undue quantity of these radiations can result in profound changes in the blood

The Minometer is a pen-sized ionization chamber that measures individual absorption of scattered radiation It permits a reading up to 0.2 r units per day The daily tolerance dose for atomic energy and other workers in this field has been estimated at 0 1 r per day For obvious reasons, it is most useful for x-ray and radium workers This new pocket device comes in two parts, string electrometer and ionization chamber This latter acts as a condenser which, when inserted into the electrometer, is given a charge to a definite voltage When radiation is present, the ionization of the air within the chamber causes the voltage to "leak off" When this is reinserted in the electrometer, the voltage change is indicated on the scale in roentgen units

By using this method in the diagnosis of excessive radiations, we have one of the best insurances against tragedies that could have been prevented

Summary

A discussion of the methods as used in physical medicine for the diagnosis of various conditions has been presented Particularly in the diagnosis of circulatory and nervous disorders, they have been found to give very valuable information Certain established technics have been stressed where indicated

Discussion

Sidney Licht, M D , *Cambridge, Massachusetts (By invitation)* —If physical medicine is to continue as a specialty in more than name only, it must prove itself indispensable to other branches of medicine, and its specialists must prove that they can do certain things better than general practitioners, other specialists, and physical therapy technicians The importance of this paper is in its title, for diagnosis, if adequately pursued by the specialist in physical medicine, will win respect and permanence for him. The physical medicine specialist must develop manual skills and interpretative faculties which others cannot gain without time-consuming training In short, he must gain the position in the medical community which other physicians will be forced to accept as essential. There are few areas in physical medicine which cannot be handled by technicians, as is proved by the ever-lessening contact between physical medicine specialists and the equipment in their departments, but in the field of diagnosis by physical methods there are several which, by their very nature of time consumption, tediousness, and interpretation, have more or less been willingly abandoned to him by his colleagues and not yet invaded by the technician By accepting and developing these gift horses the physical medicine specialist can and must gain the dependence of other physicians

I have personally witnessed, as I am sure many of you must have, the favorable change in the attitude of staff physicians, time after time at different hospitals and clinics when it became known that the physical medicine department could supply diagnostic information in terms of the third decimal place of chronaxie and the esoteric numbers of oscillometry and, when it was learned that the physician attended to the testing and evaluations himself, he was no longer regarded as a rubber stamp, but as a physician —a specialist.

I believe that for the present there are five major diagnostic procedures which all physical medicine specialists should pursue at their hospitals to the extent of available equipment. I have not mentioned to the extent of their time because they must either

make time for it or no longer consider themselves indispensable These five areas are electrothermometry, electrodiagnosis, including electric skin resistance, oscillometry, electromyography, and most important in the eyes of some, voluntary muscle evaluation

In the field of electrodiagnosis there have been innumerable attempts made to find newer ways of saying one simple thing Although it is true that the clinical test for nerve degeneration will give an immediate answer, in most cases, to the question concerning the physiologic and anatomic status of the nerve, as long as our fellow physicians are more impressed by an answer containing three or more significant figures, I believe we should take advantage of this weakness and, whenever possible, use the more refined methods of electrodiagnosis We must not have too much confusion within our own ranks, however, and for this reason it is with much joy that I witness the present trend of returning to the appreciation and use of chronaxie rather than the many ratios, strength-duration curves, and other recent formulae to which so much attention was paid during the last war

I believe that all physical medicine specialists should always be on the alert for the introduction of more methods of diagnosis which can best be performed in their departments and to which they can give personal attention, because, with the exception of electrosurgery and manipulation, there are almost no phases of physical therapy which cannot be learned in a shorter time than it takes to make a specialist

Herbert Kent, M.D, *Closing*—In reply to Dr Hansson's question as to the relative value of the various types of instruments available, it is my opinion that unless the instrument is accepted by the American Medical Council on Physical Medicine, it is dependent upon the individual who uses this procedure to see that the merits of the device are all that the manufacturer claims This particularly applies to those carrying on research In these cases, experiments should be carried out to establish the accuracy of the instrument

In closing, I wish to thank Dr Sidney Licht for his kindness in discussing my paper I also wish to thank Dr William Bierman, Mr H L. Gibson, Eastman Kodak Company, General Electric X-Ray Corporation, and U M A. Inc for their kindness and courtesy in supplying me with the instruments, photographs, and lantern slides

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PROPAGANDA AT TAXPAYERS' EXPENSE

Mr Ewing's lengthy and elaborate booklet, *The Nation's Health—a 10-Year Program*, evidently has been mailed to many or all Rotary Club presidents in the United States at taxpayers' expense.

The booklet, which contains 186 pages and is considered more or less the "bible" for social planners in their fight for compulsory sickness insurance, was originally intended to be sold for $1 00 The last page carries this information "U S Government Printing Office, 1948, for sale by the Superintendent of Documents, U S Government Printing Office, Washington, D C , price $1 00 "

Here is what one Rotary Club president said in a letter to me after he received the booklet

"I haven't read it [the booklet] over, but in the preface Mr Ewing states he is depending on civic clubs such as ours to help pave the way It might be explained how the taxpayers' money is being spent in putting out such an elaborate treatise for political propaganda purposes."

If it is a fact that the Federal Security Administration mailed a $1 00 government publication to approximately 4,200 Rotary Club presidents in the United States, probably in addition to thousands of other civic club presidents, there is little wonder why a Congressional Committee recently began squawking about the money which the Federal government is spending for "sheer propaganda designed to influence public thinking and to bring pressure on Congress "

In its final report of the 80th Congress, the House Executive Subcommittee on Publicity and Propaganda said there is "considerable overstaffing in the press relations offices of a number of government agencies" and that many press relations employes are utilized by lobbyists "in furtherance of propaganda drives "

—Secretary's Letter, A M.A , January 31, 1949

REHABILITATION IN POLIOMYELITIS

KRISTIAN G HANSSON, M D , New York City

(From the Cornell University Medical College and Hospital for Special Surgery)

DURING the last eight years we have had much discussion on the early treatment of poliomyelitis, the percentage of recovery, and the mode of early treatment In studying the various reports the end results were very much the same with the different treatments, i e , 70 per cent recovered completely, 18 per cent showed slight residual paralysis, and 12 per cent severe paralysis It is this last group of patients with marked handicaps where rehabilitation plays an important part

Our interest in rehabilitation was much increased during the last war Although the word "rehabilitation" means to restore somebody to his former state, it has come to include all our efforts to overcome the damage to the human body wrought by trauma or illness The word convalescence is often used in civilian hospitals, and reconditioning is the term used in military hospitals

Although rehabilitation is usually associated with the convalescence, we must realize that rehabilitation really starts with the beginning of the acute onset The restoration to the maximum recovery is the guiding spirit of all our forts in the treatment of the polio patient

We will discuss polio rehabilitation under five eadings (1) treatment and prevention during ne acute stage, (2) bed rest, activity, and nution, (3) physical rehabilitation, (4) mental eadjustment, and (5) vocational training

Early Treatment

Everything we do for the acute poliomyelitis atient, be it position in bed to prevent contractures, application of heat to overcome spasm, r exercise to strengthen muscles, fits into the icture of rehabilitation We keep the patient n bed until it becomes safe for him to carry his veight The condition of joint stability and nuscle strength determines the time for weight bearing

In order to secure the best rehabilitation, the early treatment consists of

1 Maintenance of nutrition by proper diet including amino acids, testosterone, and estrogen
2 Instruction in proper body mechanics in bed
3 Early passive exercises to keep normal range of motion in joints and prevent contractures
4 Therapeutic measures for muscle spasm
   (*a*) Heat to muscles which show spasm
   (*b*) Individual tank with whirlpool and water of 100 F
   (*c*) Curare
5 Muscle re-education to secure the maximum return of muscle function.

The most difficult patients for rehabilitation are those patients who have spent several weeks in a respirator The position in the respirator produces persistent adduction contractures of the shoulders with cupping These patients also show marked asthenia It is to be hoped that the present respirator will be replaced by new types that will allow free movement of the extremities The following case report is of interest

Case 1 —An eighteen-year-old girl was taken sick the first week of December, 1946 She was taken to a hospital, where her appendix was removed When she returned home, she still had abdominal pain, and one day found she could not move her legs

She was told she had infantile paralysis and was removed to a hospital in Brooklyn, where she was treated with prone packs for three weeks She then was transferred to the Hospital for Special Surgery where she was placed on a hard bed with her feet against a foot board She was given packs, underwater treatments, and daily muscle stretching She was put on a diet to reduce

Later she was given a long leg brace for her right leg She has stood in a walker for short periods of time and is now learning balance on crutches and walks a short distance She went to the therapeutic pool every day, and the occupational therapists kept her busy whenever she was not scheduled for treatment

Bed Rest

The disadvantages of bed rest were much discussed in the recent World War Some very interesting investigations on bed rest were carried on at Cornell Medical College by Drs Dietrick, Whedon, and Shorr

In the study of normal individuals who were kept immobilized by plaster casts in bed, it was found that much calcium, phosphorus, and nitrogen were lost through the urine The same losses were found in polio patients who were bedridden for long periods One group of chronic patients and one group of acute cases were stud-

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Session on Physical Medicine May 19 1948.

make time for it or no longer consider themselves indispensable These five areas are electrothermometry, electrodiagnosis, including electric skin resistance, oscillometry, electromyography, and most important in the eyes of some, voluntary muscle evaluation

In the field of electrodiagnosis there have been innumerable attempts made to find newer ways of saying one simple thing Although it is true that the clinical test for nerve degeneration will give an immediate answer, in most cases, to the question concerning the physiologic and anatomic status of the nerve, as long as our fellow physicians are more impressed by an answer containing three or more significant figures, I believe we should take advantage of this weakness and, whenever possible, use the more refined methods of electrodiagnosis We must not have too much confusion within our own ranks, however, and for this reason it is with much joy that I witness the present trend of returning to the appreciation and use of chronaxie rather than the many ratios, strength-duration curves, and other recent formulae to which so much attention was paid during the last war

I believe that all physical medicine specialists should always be on the alert for the introduction of more methods of diagnosis which can best be performed in their departments and to which they can give personal attention, because, with the exception of electrosurgery and manipulation, there are almost no phases of physical therapy which cannot be learned in a shorter time than it takes to make a specialist

Herbert Kent, M D, *Closing*—In reply to Dr Hansson's question as to the relative value of the various types of instruments available, it is my opinion that unless the instrument is accepted by the American Medical Council on Physical Medicine, it is dependent upon the individual who uses this procedure to see that the merits of the device are all that the manufacturer claims This particularly applies to those carrying on research In these cases, experiments should be carried out to establish the accuracy of the instrument

In closing, I wish to thank Dr Sidney Licht for his kindness in discussing my paper I also wish to thank Dr William Bierman, Mr H L Gibson, Eastman Kodak Company, General Electric X-Ray Corporation, and U M A Inc for their kindness and courtesy in supplying me with the instruments, photographs, and lantern slides

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PROPAGANDA AT TAXPAYERS' EXPENSE

Mr Ewing's lengthy and elaborate booklet, *The Nation's Health—a 10-Year Program*, evidently has been mailed to many or all Rotary Club presidents in the United States at taxpayers' expense

The booklet, which contains 186 pages and is considered more or less the "bible" for social planners in their fight for compulsory sickness insurance, was originally intended to be sold for $1 00 The last page carries this information "U S Government Printing Office, 1948, for sale by the Superintendent of Documents, U S Government Printing Office, Washington, D C , price $1 00 "

Here is what one Rotary Club president said in a letter to me after he received the booklet

"I haven't read it [the booklet] over, but in the preface Mr Ewing states he is depending on civic clubs such as ours to help pave the way It might be explained how the taxpayers' money is being spent in putting out such an elaborate treatise for political propaganda purposes."

If it is a fact that the Federal Security Administration mailed a $1 00 government publication to approximately 4,200 Rotary Club presidents in the United States, probably in addition to thousands of other civic club presidents, there is little wonder why a Congressional Committee recently began squawking about the money which the Federal government is spending for "sheer propaganda designed to influence public thinking and to bring pressure on Congress "

In its final report of the 80th Congress, the House Executive Subcommittee on Publicity and Propaganda said there is "considerable overstaffing in the press relations offices of a number of government agencies" and that many press relations employes are utilized by lobbyists "in furtherance of propaganda drives."

—Secretary's Letter, A M A , January 31, 1949

walk and re-entered the Hospital for rgery for continued rehabilitation He reatments in the therapeutic tank, and he to stand in a walker In December, 1946, first steps with two crutches and one long ind he was able to go up and down stairs as sent home on June 7, 1947

owing November he re-entered the hos- he third time for the correction of a id, in addition, it was decided to fuse the der which was flail After sixteen weeks is removed, and the results were satisfac-

.ehabilitation

chologic aspect of all sickness has been itely, and the part it plays in polio- as received much attention during the

The handicapped polio patient has wo challenges First, the uncertainty ty in the early phase and later the i that he will not be perfectly normal

at difference between acute polio and e disease is the absence of pain in polio first three weeks The stay in the s not without some cheer In fact we etimes see well-meaning organizations spoil the children However, being n its family under institutional disci- kes the early phase of convalescence to the child patient as well as to the ent It is surprising how soon children emselves to being away from home and i companionship they enjoy with fellow

Only the occasional patient worries r the future as long as he is on active f some kind

he time comes to discontinue treatment atient is told no more improvement can ted, generally speaking, the ensuing lepression is difficult to handle. All pass through this period Some show iologic shock, others do not, but all feel ost cases the patient does not take "no" swer and shops around among several ntil it dawns on him that he has reached num improvement and must do his best it he has It is here that diversional onal therapy makes a great contribution t lead the patient's mind and interest obbies and occupations Where school- bleated, this should be encouraged To draw and paint has helped many pa- There should be a return to normal life ial intercourse with friends and visits heater or the movies or participation in creation and amusements. A typical escribed

—In August, 1945, a twenty-two-year-old became ill while on board an American transport, sailing for home after serving with the O S S in Italy She was sent to Walter Reed Hospital with both legs and trunk muscles paralyzed She was soon transferred to Warm Springs, Georgia, where she was given exercises and learned to walk with a right leg brace and two crutches

She moved to New York in November, 1946 She lives alone and drives her own car In an attempt to discard her brace she met with disaster when she fell and fractured her tibia She continued her muscle re-education and swimming in New York.

During the summer of 1947, she motored to Maine, driving alone She walks well with a long leg brace and Canadian crutches For the future she has various plans for vocation and mental relaxation She has attempted to write and illustrate short stories and also gets much pleasure from drawing and painting

Vocational Training

The ultimate goal in the rehabilitation of polio is to make the handicapped patient independent in his personal life, self-supporting in his family, and a useful citizen in the community The Federal government, the State, and the community are awake to these responsibilities and are organized to meet the demand of most of our patients At the Hospital for Special Surgery a representative of the Division of Handicapped of the State Education Department meets once a month with delegates from social service, occupational therapy, orthopedics, and physical medicine departments The applicants for vocational training are reviewed and discussed. A vocational aptitude test is given to the patient, and arrangements are made for training along lines suggested

I have personal experience with several badly handicapped girls, who are wheelchair patients They have been trained in shorthand and typing Such secretaries can be used in various hospital offices Even if they have to live in the hospital, they make up for their handicap in devoted service to the hospital They are not apt to leave on short notice or complain of salary every month They fill a real need in our hospitals and become self-supporting citizens and valuable members of the hospital staff

The occupational therapy department helps in the training of the vocational program. This makes it possible for the patient to start her vocational training while still undergoing treatment in the hospital Many correspondence courses are available

The weakness in our present program is a lack of real teachers available for instruction in useful occupations Such organizations as Goodwill Industries, Bulova, and the Institute for Crippled and Disabled do very praiseworthy work but require transportation for patients, and this often represents a difficult problem. A case report follows

ied These losses could be overcome by placing the patients on an oscillating bed for eight-hour periods It is believed that pressure on the soles of the feet intermittently will maintain normal blood chemistry

The disadvantages of bed rest in polio patients, often bedridden for years, are a phase that has been neglected until now The study of the blood chemistry gives us information on the metabolism of patients confined to bed It is not rare to see polio patients lose 20 to 30 pounds while maintaining the subcutaneous fat, and the actual loss is, therefore, in muscle tissue We supplement the polio patient's diet with amino acids However, this attempt at a polio diet has been rather crude With interests directed toward metabolism of polio patients, as is now going on at the Russell Sage Institute of Pathology, we can look forward to a better understanding of muscle metabolism We may hope to prevent loss of weight or to recover some weight by a proper diet or well-directed endocrine therapy

Case 2 —In July, 1945, a student nurse became seriously ill and was removed to a hospital for contagious disease She spent three weeks in a respirator and was given prostigmine injections to relax her muscles She was also given hot packs until her removal to another hospital in August, 1945

Treatments received there were hot packs, hot pool, and physical therapy Seven months later she started underwater walking and was also allowed a couple of hours a week in a wheel chair

In November, 1946, she was removed to New York Hospital to participate in experiments on bed rest Her weight at this time was 60 pounds She gained 20 pounds However, the endocrine therapy had to be discontinued because the patient developed a bass voice Other studies were made on the effect of polio on her metabolism, and she spent many days in an oscillating bed During this time her physical therapy treatments were continued, and she was fitted with two long leg braces In July, 1947, she was discharged to her home

In September, 1947, she was transferred to the Hospital for Special Surgery for rehabilitation Her treatment here consisted of exercises in the therapeutic pool She can now stand with the help of the walker and even take a few steps Since her acute illness she has had several severe attacks of abdominal pain This was diagnosed as a kidney stone in April, 1948, and the stone was removed One week following the operation she was able to get out of bed and sit in a wheel chair Her walking was resumed in another week

During the last year she has received instruction in shorthand and typewriting and is progressing fairly well in both of these subjects This knowledge will qualify her for a secretarial position

Physical Rehabilitation

The limited meaning of physical rehabilitation should begin when the maximum muscle strength has been recovered It has been shown by previous work that the useful recovery takes place during the first six months It is true that some improvement will continue for years, but this is rarely of functional value

It seems rational, therefore, to set the sixth month as the beginning of physical rehabilitation In the first six months the great emphasis is laid on rest in the proper position, the avoidance of strain on joints, ligaments, and muscles After six months we stress functional activity for practical purposes The patient is encouraged to help himself with his personal hygiene, to put on braces, get out of bed, and to get into and out of a chair In general, activities are stressed rather than rest The exercises are changed from muscle re-education exercises to maximum effort exercises

Mechanical supports are now recommended, such as abduction splint for paralyzed deltoid, high or low back braces for weak trunk muscles, long leg braces to prevent collapse of the knee, and supporting appliances for the ankle Everything is done to facilitate ambulation without doing harm to the patient Walking in the pool with braces, when necessary, is the first step in ambulation

Then comes the use of a walker and, later, balancing on crutches When the patient can balance himself on crutches, we start gait training and crutch walking Substitution movements may even be encouraged As an example, in paralyzed tibialis anticus we may train the patient to dorsal flex the ankle by using extensors of toes, while the toes are maintained in flexion

After two years of convalescence, orthopedic surgery should be considered, such as fusions to stabilize joints and thereby discard braces Tendon transplants are used for balancing of joint movement or to gain opposition of a thumb, epiphysidesis to equalize leg length, spine fusion, etc

In physical rehabilitation, physical therapy plays an important role Functional occupational therapy should be stressed more and plays a great part in convalescence of the polio patient The following case report is to be noted

Case 3 —In September, 1945, a twelve-year-old boy entered a hospital because he was ill He was told that he had infantile paralysis and spent six weeks in a respirator

He was transferred to the Hospital for Special Surgery on October 31, 1945 where he had daily packs and stretching exercise He also had many injections of curare followed by exercises to stretch his spastic muscles The following summer he was able to sit up in bed for fifteen minutes a day

He went home for the summer months and received treatments three times a week by a visiting physical therapist The following fall he was still

National Association has given approval to the Emerhard type of so-called portable respirator This apparatus will allow a greater freedom to the patient and permit active physical therapy and treatment during the acute, convalescent, and chronic stages of the disease.

I should like to take exception to one recommendation that is contained in Dr Hansson's paper I do not believe that special hospitals for the treatment of the acute, convalescent, or chronic poliomyelitis patients should be established In times of severe epidemic, such institutions are never adequate to care for the case load. In nonepidemic times we find many vacant beds, and these vacant beds represent a real financial liability to the community Rather than special institutions there should be created, within medical centers, institutions which provide a total rehabilitation program, not only for poliomyelitis, but for patients who are disabled by other infectious diseases as well as from industrial accidents

Dr Hansson has also spoken of diversional occupational therapy It is my considered opinion that diversional occupational therapy may also be functional and that the occupational therapist has a real place in this total program of rehabilitation

In conclusion, I should like to point out that the major problem confronting the medical profession today is seeing to it that disabled individuals, whatever the cause, are given the greatest opportunity possible for rehabilitation and preparation for their making full use of the capabilities that remain with them and that they be contributing rather than consuming members of society

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PRESENT-DAY EDUCATION IN PHYSICAL MEDICINE

WILLIAM BIERMAN, M D , New York City

(From the Department of Physical Therapy, Mount Sinai Hospital)

THE subject of physical medicine is of interest to the general practitioner and to the practitioners of many of the medical specialties, as well as to the doctor who makes this his exclusive professional concern. In order to gain an overall view of the subject let us first consider the position of the specialist in physical medicine

The Specialist in Physical Medicine

About one year ago, physical medicine was officially recognized as a specialty with a board of its own. And well it might be, for the practice of physical medicine as it exists today requires special knowledge and special skills, as well as a large amount of space and a costly collection of apparatus. Subdivisions of this specialty include thermal therapy, hydrotherapy, climate and spa therapy, electrotherapy, ultraviolet radiation, massage, kinesiology, exercise and rehabilitative therapy, occupational therapy, manipulation, and specialized diagnostic procedures. On the European continent, this specialty also includes the use of x-ray and radium radiation. To this there is now being added the field of radioactive isotopes Numerous books have been written concerning each of these subdivisions. The necessity for such a large literature becomes understandable when one reviews any one of these subdivisions in some detail, as, for example, thermal therapy This subject covers conductive heating measures such as hot and cold compresses, heating pads, lamps (producing both visible and infrared radiation), diathermy (long and short wave), electrosurgery, and fever therapy A knowledge of the physical, physiologic, and chemical background and the scientific application of these thermal measures, as well as skill in their use, requires an extensive period of education and training Many of the other subdivisions are even more complicated. To compound further the complications of the medical practitioner who specializes in this field is the necessity for reliance upon technicians, each specially trained in one of several fields This reliance on skilled technicians is a matter of practical expediency, no matter how thoroughly versed in his specialty and how skillful the specialist himself may be

The candidate for certification by the American Board of Physical Medicine is required to possess certain qualifications These include general ones, such as the possession of good moral and ethical standing in the profession, and membership in the American Medical Association Professional ones consist of graduation from a recognized medical school and the completion of an internship, preferably of the general rotating type, and special training which must include a period of study after the internship of not less than three years in clinics, dispensaries, hospitals, or laboratories recognized as competent to provide satisfactory training in physical medicine.

This period of specialized preparation must include (1) graduate training in anatomy (including kinesiology and functional anatomy), physics (including radiation physics, electronics, and medical instrumentation), physiology, pathology,

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Case 5 —A six-year-old girl contracted poliomyelitis in 1927 while living in Pittsburgh, Pennsylvania She was left with paralysis of both legs, right arm, and back She spent five years in a convalescent home undergoing rehabilitation

When she left Pennsylvania in 1932, she was wearing long leg braces attached to a Knight spinal brace with hip and knee locks Thus harnessed she was able to walk to a limited degree with the help of crutches, however, she spent most of her time sitting in a wheel chair This led to hip flexion contracture and she was admitted to the Hospital for Special Surgery, where she had her first Soutters operation

She returned home and attended high school In June, 1937, she had her second bilateral Soutters operation She was then able to complete high school and entered a business school, with the help of the State Rehabilitation Division

By July, 1941, a curvature of the spine had become progressively worse, and she had her first spinal fusion in July, 1941 In 1943 the scoliosis increased in spite of the fusion, and pseudoarthrosis was diagnosed A second spine fusion was done in April, 1943, which was followed by an infection and osteomyelitis

In 1944 she had her first job working in the accounting office of the Hospital for Special Surgery After three months she was admitted to the hospital for penicillin therapy for osteomyelitis In October, 1945, she sustained a fracture of the right tibia which was treated with closed reduction and plaster

In September, 1946, she had her third spinal fusion and her third Soutter operation, both of which were very successful On Christmas Eve, 1947, she fell and sustained an intertrochanteric fracture of the right femur which was plated She is now perfectly well The fusion of the spine is solid and the fractures are well healed However, she spends most of her time in a chair She is able to take care of herself and has given up walking, but is able to hold a permanent position as medical secretary in the hospital, where she lives in the nurses' quarters

Summary

1 The rehabilitation in polio really starts in the acute stage in the form of prevention of deformity

2 Bed rest versus activity and nutritional requirement must be determined for each individual patient

3 Physical restoration to strengthen and coordinate muscles, to support joints by braces or orthopedic operations, and to retrain the patient in a new functional activity has received additional emphasis since the war

4 Mental readjustment should not be neglected in a disease that can strike the healthiest individual and make a wheelchair patient out of him in a very short time.

5 Vocational training is the responsibility of the community, the State, and the Federal government and is also recommended to make the handicapped patient independent and a citizen.

Conclusion

It is our duty to rehabilitate the polio p after the acute illness We have not e hospitals equipped for this work. We special hospitals for convalescent polio pat especially for adolescent and adult patients polio patients in New York are well care thanks to the support of the National Found for Infantile Paralysis It is only to be hope New York will soon have adequate convale hospitals for all polio patients, including a

Discussion

Hart E Van Riper, M D , *New York (B vitation)* —A review of crippled children's reg as maintained by Services for Crippled Childr all of the 48 states indicates that poliomyelitis the leading cause of disablement among chi The Statistical Bulletin of the Metropolitan Li surance Company also points out that poliomy continues to cause an ever-increasing numb persons who are disabled in one way or an One who sees the end results of poliomyelitis demics cannot fail to agree with Dr Hansson early rehabilitation is important in the treatme this disease

All too frequently, children are admitted to pitals, given adequate early care and treatment are then discharged not prepared to utilize to th their mental as well as their physical resources my own feeling that rehabilitation, that is me rehabilitation, should begin with the day the pa is admitted to the hospital It is not sufficie provide treatment over weeks or months and institute rehabilitative measures Even the during early convalescence, especially the y adult, can, through proper planning, be fitted t with the handicaps that have resulted from disease

It is essential that someone take the lead i ordinating the many professional abilities tha brought to bear on the patient It is quite lo that the doctor of physical medicine is the one qualified to coordinate and correlate the activiti the many members of the professional team T should include the physician who is directly sponsible for the care of the patient, either the ternist or pediatrician and the orthopedist, the do of physical medicine, the occupational therapist, physical therapist, the nurse, the psychologist, vocational counselor, the teacher, and others have direct contact with the patient

One cannot help but note Dr Hansson's critic of the presently available respirator The large t type of respirator unquestionably prevents pro physical therapy to the patient, and the confinem within this apparatus does result in certain disab ties and deformities that could otherwise have b prevented I have but recently learned that Council on Physical Medicine of the Americ

existence of irregulars, and the inadequate ... of specialists in physical medicine

Medical Undergraduate

A recent survey indicates the extent of the ... teaching in this subject [2] The great ... of medical colleges in this country in... instruction in physical medicine as a ... part of the curriculum One third of these schools have separate departments of physical medicine In only 10 per cent of the ... does the doctor in charge hold professorial ... The subject is usually presented in the third and/or fourth year The number of hours devoted to it varies from one to one hundred twenty—with an average of sixteen The attention devoted to physical medicine has increased, but the undergraduate still secures only a superficial acquaintance with it

The Physical Therapist

The term "physical therapist" is now applied to the technician in this field Formerly it was employed to designate the physician-specialist who is now called a "physiatrist" In New York State there are a number of lay workers who are licensed as physical therapists

There are twenty-five schools for the teaching of technicians in physical medicine that are acceptable to the Council on Medical Education and Hospitals of the American Medical Association.[1] Candidates for admission to these schools are required to satisfy one of the following requirements

1. Graduation from an accredited school of nursing
2. Graduation from an accredited school of physical education
3. Two years of approved college training including satisfactory courses in biology and other sciences.

The minimum length of time for the course is thirty-six weeks Actually it varies from twelve to fifty four months Graduates receive certificates, diplomas, or degrees A minimum of twelve hundred hours of instruction in specialized subjects which include the applied sciences (anatomy, pathology, physiology, psychology, and physics), procedures, such as electrotherapy, radiation therapy, hydrotherapy, massage, and therapeutic exercise, physical therapy as applied to medicine, neurology, orthopedics, and surgery, ethics and administration, and electives such as bandaging and first aid The last four hundred hours must be devoted to clinical practice The total maximum enrollment in the approved schools is limited to 419

Many who desire to become physical therapists do not go to approved schools because they do not know of their existence, or cannot meet their entrance requirements, or because they are excluded due to the limited capacity of these schools It is not strange, therefore, that many technicians who enter the field are poorly trained

Graduates from approved schools can become members of the American Registry of Physical Therapy Technicians after they have passed an examination given by the registry Although the registry is not authorized by any national or state agency, it is considered as a national qualifying organization today However, due to the limited number of its members it is not yet practical to demand that all technicians be registered before they are permitted to work as physical therapists All registered technicians are required to observe the code of ethics, namely, that they shall practice only under the direction of a licensed physician in accord with his prescription, and that under no circumstance will they treat patients on their own initiative or operate an independent office

The Occupational Therapist

The Council on Medical Education and Hospitals of the American Medical Association has approved 18 schools in this country and in Canada for the teaching of occupational therapy [3] In 1946 these schools graduated a total of 391 students The duration of the courses varies from two to five years Graduates of the longer courses are given Bachelor of Science degrees The shorter courses are designed for those who have had one or two years of college education before admission. The standards for these schools are set by the Council on Medical Education and Hospitals in cooperation with the American Occupational Therapy Association. The latter organization also registers qualified therapists

The curriculum of approved schools requires not less than sixty semester hours devoted to theoretic technical training The didactic instruction includes the biologic sciences of anatomy, kinesiology, neurology, physiology, and psychology, the social sciences of sociology, individual readjustments, social and educational agencies, the theory of occupational therapy with interpretative courses covering the principles and practice of occupational therapy in relation to orthopedics, pediatrics, tuberculosis, psychiatry, general medicine, surgery, and other special fields, and the clinical subjects of blindness and deafness, cardiac diseases, general medical and surgical conditions The major portion of the thirty semester hours devoted to technical training may be in one of three fields with survey courses in the other fields. They are (1) fine and applied arts (design, leather,

and other basic sciences which are necessary to the proper understanding of physical medicine, (2) an active experience of not less than two years in hospital clinics, dispensaries, and diagnostic laboratories recognized by the Council on Medical Education and Hospitals of the American Medical Association and the American Board of Physical Medicine Such specialized training is available in residencies and fellowships There are 70 assistant residencies and residencies in physical medicine available in 34 hospitals [1] An additional period of not less than two years of study and/or practice in physical medicine is also required

The specialist in physical medicine can secure his graduate education in a number of universities in the United States No one of these covers all the specialized knowledge now available in this field The logical development would be the establishment of at least one center where the would-be specialist could secure all phases of the knowledge he now must seek in different places throughout the land More thoroughly representative didactic as well as clinical teaching, including a knowledge of the technics required of technicians, should be available to him He should, for example, become capable of performing tests for muscle function, of administering corrective and rehabilitative exercises, and of giving a good massage It is very important that he become a master of the art and science of manipulation as well as of the many other special technical practices which have been developed in physical medicine Possibly a period of two years would be necessary for this period of special training

Such a curriculum would necessitate a full- and part-time staff, the members of which should be selected on the basis of their knowledge, experience, ability to teach and to conduct research, and their sense of logical values resulting from a thorough understanding of the specialty This last qualification is most important at the present time, inasmuch as the fundamentals of teaching are yet to be established With such a group, the danger of emphasizing unduly any one phase of the specialty would be minimized Reconditioning of individuals disabled by trauma or disease has become an important part of physical medicine The number of such individuals is large, but unquestionably the number of ill persons who can be benefited by other forms of physical medicine is many times larger The necessary staff could be supported only by a generous fund for this purpose These monies, although large in sum, would be spent more advantageously than the greater amount represented by the aggregate of smaller sums divided among numerous institutions

An important question involved in the training of the specialist in physical medicine is "training for what" The career of the specialist in physical medicine, when contrasted with specialization in other phases of medicine, possesses advantages and disadvantages The advantages include soul-satisfying activity for those who are fundamentally attracted to this field, relative regularity of hours of working and minimization of the tension to which many doctors are subjected, and opportunity for original investigation for those who are both mechanically and physiologically minded The disadvantages include a lack of appreciation of the importance of the field on the part of other practitioners, and a restricted financial return for his efforts Unlike specialists in other subdivisions of medicine such as internal medicine, surgery, ophthalmology, etc , there are relatively few specialists of physical medicine in this country who rely primarily upon the financial return secured from private practice To develop the reasons for this would take us too far afield The establishment of full-time salaried positions in the Veterans Administration has increased the number of opportunities for earning a modest livelihood in this field A high degree of socialization now exists in this division of medicine. The young man entering into it, therefore, should realize that the horizon of his financial prospects includes essentially only the modest returns from a salaried position

The General Practitioner and Specialist in Fields Other Than Physical Medicine

A knowledge of physical medicine is of advantage in the diagnosis and treatment of so many conditions encountered by the general practitioner and by the specialist that the need for conveying information concerning these measures to these individuals has been recognized for a long time To meet this need, single lectures and series of lectures have been given at medical societies, seminars have been held, and short part-time courses of instruction have been given None of these are satisfactory The part-time courses offer the practitioner his best opportunity for acquiring some of the knowledge he needs Certainly it is superior to the postgraduate teaching he now receives at the hands of the manufacturer's representative who sells him a short wave machine or some other equipment Such a course permits him to realize that physical medicine is a complex specialty As more time is found for instruction in physical medicine in the undergraduate curricula of medical schools, the need for the present technic for the education of the general practitioner will be minimized Unfortunately, the general practitioner's ignorance of this field is in a large measure responsible for the unsatisfactory treatment of his patients,

improvement in the teaching of the specialist, the general practitioner, and the technician engaged in this field.

Discussion

Richard Kovacs, M.D., *New York City*—Dr Burman has given a comprehensive picture of the present-day status of education in the new field of physical medicine His emphasis on the education of specialists is in keeping with the recent progress during this phase of the subject Even as recently as five years ago, only the most sanguine could hope for the creation of an independent board, which has now become a reality, and for the possibility of such training as is now requested and available However, I fully agree with the essayist about the fact that most of the younger men qualifying as specialists will have to find their mainstay in institutional practice.

Education of general practitioners in physical medicine is of paramount importance if patients are to receive the benefit of available physical therapy measures at an early time. On this phase of the subject, as well as on the education of technicians there is much to be said on the situation prevailing in our own State.

The Medical Society of the State of New York has endeavored for many years to supplant the deficient education of general practitioners in physical medicine by offering postgraduate lectures on the subject to all county societies As chairman of a special committee on physical therapy from 1932 to 1935, I have presented the subject before most of the 61 county societies. Furthermore, through the Committee on Public Health and Medical Education, there have been available for the past fifteen years two courses on physical therapy of four lectures each, free of charge to any county society By this time all of the medical schools in this State have established some undergraduate training in physical medicine. Postgraduate training has been regularly scheduled since 1927 for general practitioners as well as for specialists at the New York Polyclinic Medical School and Hospital, and is also being offered at irregular intervals by Columbia University and its affiliates, as well as recently by the new Rehabilitation Center at Bellevue Hospital.

The status of the education of technicians, which has been so well organized on a national scale, is in a state of utter confusion in New York State This is chiefly due to the fact that misdirected legislation has inserted a so-called physiotherapy "clause" in the Medical Practice Act of 1926, and the story and results of this action are now unfortunately well spread on the record Physiotherapists were to be licensed on a basis of a topsy-turvy set of educational requirements, involving four years of study in an accepted institution This seemed acceptable on first sight, but the catch came in a waiver clause, admitting, without examination all persons having "practiced" physical therapy at that time The result up to this time was the admittance within these years of some 350 people without examination and some 50 since by examination also the expenditure to resist the efforts of registered physiotherapi be freed even from the nominal supervisic practice in their own offices under medical s vision As a further result of the unsatisfa State law, while the education of technicians national standards was carried on satisfactor teaching institutions of this State, the gradua these institutions and those recognized by American Registry of Physical Therapy Techni have no legal status in this State, and unde strict interpretation of the existing statute, p cians employing them could be prosecuted T to the confusion, massage operators have licensed for many years in New York City, a order to be able to fill vacancies in municipal pitals, technicians are appointed to these un separate set of civil service regulations The re tion of this highly unsatisfactory state of affai legislation has been considered during the past by a joint Council committee of the Medical So of the State, and the recommendations made ar to be acted upon by the Council of the State So

There can be no question but that the educ and licensing of physical therapy technicians in York State presents an involved problem, an fair solution is highly desirable It may re even some modification in national standard asmuch as there seems to be a definite place fo recognition of "subprofessional" groups, suc masseurs and junior technicians, for social economic reasons

The inclusion of occupational therapy in broadened field of physical medicine has been desirable, the educational requirements fo technicians and the scope of their activity hav well established by this time This cannot be s the other group of new technicians, the phy education or "corrective" therapists Their developed under wartime conditions, dealt c with relatively healthy and young persons, as i continued in veterans hospitals and civilian ins tions, it brought on overlapping with work do physical and occupational therapists and also the "corrective" therapists to some disadvantag cause of deficient training along the lines o thology and because of their comparative lack perience in dealing with the sick Dr Bier pointed out correctly that a more unified tra program for these three technician branches sh be considered In the meantime it is desirable the present corrective physical rehabilitation sonnel should be given the opportunity to repl their training, while physical therapists shoul ceive additional training and experience in corre physical therapy Thus, the inevitable unificati these two cognate branches may gradually achieved

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metal, plastics, textile and wood), (2) special and adult education (home economics and library science), and (3) recreation (music, dramatics, social activities, gardening, and physical education) Not less than thirty-six weeks must be devoted to clinical training Of these not less than four weeks each must be spent in tuberculosis sanatoria or services, general hospitals, children's hospitals or services, and orthopedic hospitals or services, and not less than eight weeks in mental hospitals [3]

The Physical Education Therapist

During World War II, many graduates of schools of physical education became important members of the team working for the physical reconditioning of the disabled They are continuing in the same capacity in rehabilitation departments of veterans and civilian hospitals. Formerly, these individuals had acted only as teachers of physical education. The curricula of the schools from which they graduated were designed for this purpose Now that they have assumed the additional role as technicians in reconditioning and rehabilitation, it is obvious that their course of study should be redesigned A course suggested for this purpose includes the following

- Basic sciences minimum of twenty-six semester hours
  - Minimum
    - Biology (or equivalent)
    - Anatomy and kinesiology
    - Physiology and physiology of exercise
  - Desirable
    - Chemistry
    - Psychology
    - Hygiene
      - Personal hygiene
      - Mental hygiene (or equivalent)
- Technical training of physical education
  - Undergraduate major in physical education (Minimum thirty-six semester hours)
- Methods courses and practice teaching experience[4]

The need for the establishment of standards comparable to those required of physical therapists and occupational therapists is obviously a definite one

A review of the curricula required and suggested for the physical therapist, the occupational therapist, and the physical education therapist shows that all three must spend a considerable percentage of their time in learning the same subjects, such as anatomy, physiology, kinesiology, psychology, and hygiene The possibility of training one individual in all three of these technical branches should be considered A technician so educated would be better able to comprehend the advisability of applying technic rather than another in the treatmen given patient She could also be of servi smaller institutions unable to afford se technicians A curriculum covering a peri four years could act as a basic one A grac could then specialize further in that divisi which she desires to become more proficient four-year course such as that indicated, be of its technical nature, may prove attracti many high school graduates who desire to (into some phase of medicine and are not attra to the field of nursing

There are objections to this plan for the t ing of the physical therapist It is dou whether, in view of the present educational cept of the necessity for the incorporation o called "cultural subjects" in courses leading degree, any university would issue one to a dent who devoted her time to the acquirin knowledge which would be considered as ali exclusively vocational One could enter academic arguments as to whether a person has acquired a fair background in such subj as human anatomy and physiology presente her in good written and spoken English is nc well educated as one who has devoted the s amount of time to other forms of litera written in English and in foreign languages

It is necessary to be factual The professi life span of the average young woman—ter nated as it frequently is by marriage, or the ne sity for taking care of a home—is a short (Within the few years available to her, she n learn what has now become a relatively comp profession and then engage in its practice I not better to give her a thorough training for specialized activities rather than insist that devote time to learning a smattering of sc *foreign language—which she promptly proce to forget Is she necessarily restrained from* perusal of classical literature because such re ing is not a curricular requirement?

A basic educational requirement such as one suggested would allow a single equable exa mination for all who desire to become register Special arrangements for education and registration will have to be made for the gradu nurse and for the graduate in physical educati *who desires to enter this field* [5]

Conclusion

Physical medicine is a medical specialty growing importance There is particular ne for conveying information on this subject to t general practitioner The specialty itself, ho ever, is far too complicated to be learned in a but a long and comprehensive course of instru tion and practice There is room for considerat

improvement in the teaching of the specialist, the general practitioner, and the technician engaged in this field

Discussion

Richard Kovacs, M.D., *New York City*—Dr Bierman has given a comprehensive picture of the present-day status of education in the new field of physical medicine His emphasis on the education of specialists is in keeping with the recent progress along this phase of the subject Even as recently as five years ago, only the most sanguine could hope for the creation of an independent board, which has now become a reality, and for the possibility of such training as is now requested and available However, I fully agree with the essayist about the fact that most of the younger men qualifying as specialists will have to find their mainstay in institutional practice

Education of general practitioners in physical medicine is of paramount importance if patients are to receive the benefit of available physical therapy measures at an early time On this phase of the subject, as well as on the education of technicians, there is much to be said on the situation prevailing in our own State

The Medical Society of the State of New York has endeavored for many years to supplant the deficient education of general practitioners in physical medicine by offering postgraduate lectures on the subject to all county societies As chairman of a special committee on physical therapy from 1932 to 1935, I have presented the subject before most of the 61 county societies Furthermore, through the Committee on Public Health and Medical Education, there have been available for the past fifteen years two courses on physical therapy of four lectures each, free of charge to any county society By this time all of the medical schools in this State have established some undergraduate training in physical medicine Postgraduate training has been regularly scheduled since 1927 for general practitioners as well as for specialists at the New York Polyclinic Medical School and Hospital, and is also being offered at irregular intervals by Columbia University and its affiliates, as well as recently by the new Rehabilitation Center at Bellevue Hospital.

The status of the education of technicians, which has been so well organized on a national scale, is in a state of utter confusion in New York State This is chiefly due to the fact that misdirected legislation has inserted a so-called physiotherapy "clause" in the Medical Practice Act of 1926, and the story and results of this action are now unfortunately well spread on the record Physiotherapists were to be licensed on a basis of a topsy-turvy set of educational requirements, involving four years of study in an accepted institution. This seemed acceptable on first sight, but the catch came in a waiver clause, admitting, without examination, all persons having "practiced" physical therapy at that time The result up to this time was the admittance within these years of some 350 people without examination and some 50 since by examination, also the expenditure of much energy on the part of the medical profession to resist the efforts of registered physiotherapists to be freed even from the nominal supervision to practice in their own offices under medical supervision As a further result of the unsatisfactory State law, while the education of technicians under national standards was carried on satisfactorily in teaching institutions of this State, the graduates of these institutions and those recognized by the American Registry of Physical Therapy Technicians have no *legal status in this State*, and under the strict interpretation of the existing statute, physicians employing them could be prosecuted To add to the confusion, massage operators have been licensed for many years in New York City, and in order to be able to fill vacancies in municipal hospitals, technicians are appointed to these under a separate set of civil service regulations The resolution of this highly unsatisfactory state of affairs by legislation has been considered during the past year by a joint Council committee of the Medical Society of the State, and the recommendations made are still to be acted upon by the Council of the State Society

There can be no question but that the education and licensing of physical therapy technicians in New York State presents an involved problem, and its fair solution is highly desirable It may require even some modification in national standards, inasmuch as there seems to be a definite place for the recognition of "subprofessional" groups, such as masseurs and junior technicians, for social and economic reasons

The inclusion of occupational therapy in the broadened field of physical medicine has been most desirable, the educational requirements for its technicians and the scope of their activity have been well established by this time This cannot be said of the other group of new technicians, *the physical* education or "corrective" therapists Their work, developed under wartime conditions, dealt chiefly with relatively healthy and young persons, as it was continued in veterans hospitals and civilian institutions, it brought on overlapping with work done by physical and occupational therapists and also put the "corrective" therapists to some disadvantage because of deficient training along the lines of pathology and because of their comparative lack of experience in dealing with the sick Dr Bierman pointed out correctly that a more unified training program for these three technician branches should be considered. In the meantime it is desirable that the present corrective physical rehabilitation personnel should be given the opportunity to replenish their training, while physical therapists should receive additional training and experience in corrective physical therapy Thus, the inevitable unification of these two cognate branches may gradually be achieved

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FIVE YEARS IN THE PRACTICE OF A NINETEENTH CENTURY NEW YORK PHYSICIAN—DR WILLIAM H VAN BUREN

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(From the Department of Health, New York City)

AS A field of investigation, the economic history of American medicine is still largely untilled In 1946, the author offered a preliminary collection of materials toward the eventual preparation of such a history [1] This comprised a group of fee bills issued in the United States between 1816 and 1891 It is obvious, however, that price data contained in such fee schedules cannot be accepted uncritically Severe competition and difficulties of collection often rendered ineffectual efforts to stabilize medical prices In numerous instances, published fees represented an ideal rather than actuality

Obviously, such tentative interpretations regarding the significance of changing levels of medical prices as may be drawn from published fee schedules must be checked against data derived from other sources Account books kept by physicians or patients provide another important source of information on medical prices Furthermore, by making it possible to trace within a given area or period the price levels that actually prevailed, such books provide a check on the extent to which fee schedules reflected reality For this reason, a study of account books has been undertaken

This paper is concerned with an analysis of one of these, a book kept by William H. Van Buren of New York from October, 1844, to August, 1849 This account book, maintained over a period of almost five years, gives a lively picture of the practice of a New York physician in the middle of the nineteenth century, and throws an interesting light on medical education at the time

The Doctor

William H Van Buren, whose account book we shall presently examine, was born April 4, 1819, at Philadelphia, the son of Abraham Van Beuren, a merchant * He entered Yale College in 1838, but because of some student prank was compelled to leave in his junior year Thereupon he enrolled at the Medical School of the University of Pennsylvania, where in 1840 he received the M D degree

After graduation, Van Buren entered the United States Army as an assistant surgeon While in military service, he was marriec November 8, 1842, to Louisa D Mott, daug of the surgeon, Valentine Mott After ha served in Florida and on the Canadian fron Van Buren resigned his commission in 1844 settled in New York City to practice The count book covers the five years following opening of Van Buren's office, and is thu particular interest since it enables us to trace developing practice of a young doctor

Soon after coming to New York, Van Bi became a member of the surgical staff of Belle Hospital From 1852 to 1866, he was profe of anatomy at Bellevue Hospital Medical lege, and from 1866 to 1883, he occupied the of professor of surgery in the same institut Van Buren was visiting surgeon to the New Y Hospital from 1852 to 1865, and in 1876 made president of its medical board He also consulting physician to various hospit among them Bellevue, Presbyterian, and Woman's Hospital In 1859, he was vice-pr dent of the New York Academy of Medic Van Buren's later career was devoted enti to consultation practice and teaching He p lished several books, among them *Contributi to Practical Surgery* in 1865, *Lectures on Disei of the Rectum*, 1870, and, in 1874, with Edw L Keyes, *A Practical Treatise on the Surg Diseases of the Genito-Urinary Organs, inclua Syphilis* He died on March 25, 1883

The Account Book

The Van Buren Account Book is a volume 86 pages, $5^{3}/_{4}$ by 8 inches in size ** It is bou in brown leather, somewhat scuffed Pasted the flyleaf is a printed fee schedule entitled List of Medical and Surgical Charges Establisl by the Associated Physicians and Surgeons of City of New York, December, 1815, and appro by the New York County Medical Socie January 2, 1816" Actually, this list of f dates back to 1790, when it was adopted by doctors of New York. Reissued in terms American currency in 1798, it was again appro by the New York County Medical Society January 2, 1816 [1] Dr Van Buren undoubtec used this list as a guide in charging his patien and it is worth noting that after fifty years it w

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* W H. Van Buren dropped the e from the paternal Van Beuren.

** The Van Buren Account Book is in the possession of Library of the New York Academy of Medicine New Y City

apparently still sufficiently in accord with other prevailing prices to be used by a young physician entering practice

Two pages following the fee schedule contain a few sporadic notations about patients We learn that Mrs Fanning, 25 Thomson Street, expected "to be confined in July", and that Lydia Swann, a "staphyloraphy case—lives 520 Greenwich at Mrs Coombs" Such entries arouse our curiosity Did Mrs Fanning have a boy or a girl? How did the staphylorrhapy turn out? But, as no answer is provided, we turn the page and come upon a list of "Monthly Nurses" The names and addresses are given of five women who could be called upon when nursing care for an extended period was required

Dr Van Buren's first entry is dated October 3, 1844, and the last August 29, 1849 Thus, the entries cover a period of four years and eleven months In general, the record is continuous There are a few gaps, however, in 1845, but it is not clear whether these are due to a lack of anything to record, or to some other reasons. Following the last page of entries is a list of "Students names and date of Entry in Office with Amount of fee charged and amount received" This list covers the period from 1846 to 1849, and records information for eight students Finally, the last three pages of the book contain a recapitulation of Dr Van Buren's income from his practice by months and years This section also indicates how much came from student fees, how much was taken in cash, and how much was carried on credit

The Students

Medical education in the United States has passed through several distinct phases since colonial days The first phase of its development consisted essentially of a period of apprenticeship, during which the aspiring young man studied with a chosen medical practitioner for some years Later, medical schools were established At the same time, however, the preceptorial system remained in existence Throughout a good part of the nineteenth century the two systems were combined Edward L. Trudeau relates, in his *Autobiography*, that, in 1865, when he began the study of medicine, in addition to attendance at formal lectures in medical school, "the law required that every student enter his name with some reputable practising physician for three years as a student in his office for which he paid the physician one hundred dollars each year"[2] Some practitioners, especially if prominent professionally, had more students than they wished In such instances, students were turned over to a younger colleague Van Buren recorded several students referred to him by Valentine Mott, his father-in-law The entries are as follows

Sylvester Van Sykel—Dr Mott's Of Sept. 1847
Recd. $125 00 on his a/c Sept 30, 1847
H K.W Flynn—Octr 1847—Dr Mott's fee $300 00
Recd on his a/c Oct 18th 1847 $50 00
Recd on his a/c Jan 27, 1848 $50 00
Recd on his a/c Mch 20th 1849 $12 50

From Dr Van Buren's entries it is clear that student fees provided half his cash income during the second year in practice, and almost the same was true during the third year Thereafter, however, the proportion of income derived from practice increased progressively

The Practice

During his first month in practice, Dr Van Buren recorded some of his expenses Later he stopped entering these items, but, few as they are, they provide a glimpse of the doctor's household economics On October 5, 1844, he paid Captain Knapp of the schooner *Columbia* a freight charge of $34 90 Two entries of the same date indicate payments of $16 50 for house expenses, and $10 50 to B F Rittenhouse for wood On October 9, there was a payment of $9 25 for wood and oats to P Fenwick, but on the same day the doctor recorded that he had discounted a note of $100 On October 16, Van Buren recorded payments of $7 75 for boots, of $3 for ale, $1 00 for horseshoeing, and to Martha, a domestic, $16 00 for the period from September 8 to October 8 As of the same date, he also entered 70 cents for the London *Lancet*, and $1 00 for hack hire An entry of October 25 recorded the discounting of a note at four months with the Bank of the Metropolis, Van Buren receiving $375 This was expended within the next two weeks for further necessities On October 26, the doctor paid $100 to B F Mosly for a horse, and, on October 31, $8 00 to a saddler On November 4, he spent $25 83 for furniture, and on November 8 he paid $250 to Lieutenant Walsh, U S N, for house rent With this item entries of expenditures cease, but the basic pattern of professional expenses at this period is clearly revealed

While Van Buren did not enter the diagnosis for every patient he saw, there are a sufficient number of such items to indicate the nature of his practice In addition to simple home and office visits, he noted a variety of medical and surgical conditions Among these are sciatica, hemoptysis, spermatorrhea, strumous ophthalmia inflammation of the mamma, phthisis, caries of the spine, dysmenorrhea, inflammation of the eyes, gonorrhea, syphilis, hydrocele fistula in ano, phymosis, nasal polyp, vesical calculus, urethral

stricture, dropsy, steatomatous tumor of the head, and pregnancy.

What did the doctor do for his patients? Besides examining and giving his opinion, various therapeutic measures were utilized These included vaccination, acupuncture, the use of the cautery and the seton, paracentesis, and such operations as tracheotomy, amputation of an arm, ligature of a carotid artery, setting a fracture, plugging the nares, lithotomy, removal of a nasal polyp, tapping of a hydrocele, operation for phymosis, opening of an abscess, and operation for fistula in ano A case of sciatica was treated with a seton For gonorrheal stricture, the bougie was employed In addition, Van Buren attended a fair number of obstetric patients

One of the obstetric entries is rather curious On July 22, 1847, Van Buren recorded a visit to "Mr Kennedy's daughter (Cott's mistress)," and on August 20, one visit to "Cott's Mistress" An entry of October 1, 1847, states "Cott's mistress (Anna Kennedy) Accouchment," and another of January 12, 1848, tells us that Samuel Cott, 94 Green Street, had two children vaccinated Cott and his "mistress" remained faithful patients, for a number of entries relate to them On June 14, 1849, "Cott's Mistress" was again delivered, and was seen by Dr Van Buren every day for the next four days One's curiosity is aroused by these entries, but the doctor's daybook retains its secrets

Another series of entries records the trials and tribulations of a Captain Charles, apparently a naval gentleman, who had become too intimate with the gonococcus After having been treated for stricture over a period of months, on April 4 the unfortunate captain is again noted as having gonorrhea

Patients suffering from venereal disease are often entered without a name, or in some oblique fashion For example, one finds this

June 24, 1848 Casey's friend gonorrhea 2 t Of $2
July 3, 1848 Boy, gonorrhea $1 Young man, chancres $2

Van Buren's increasing surgical activity is evident over the five-year period As time went on, he performed more major operations In a number of instances, he assisted at operations One case that he noted was apparently an industrial accident It is entered as

October 23, 1848 Harlem R.R Co Amputation of Arm at Harlem

What did Dr Van Buren charge for his services? These charges follow closely the fee schedule adopted in 1816 by the New York County Medical Society Although no conclusions can be drawn from a single instance, the evidence of the Van Buren account book suggests that published fee lists may not have deviated too much from actual charges The fee for an office visit was $1 00 to $2 00 A home visit to the patient was $1 00 to $2 00, usually $2 00 At the beginning of his practice, Dr Van Buren attended the nuns at a convent He charged $1 00 for each visit that he made, but, on October 13, 1844, he entered a charge of $5 00 for an examination and opinion in the case of Sister Seraphine However, on October 28, the doctor paid another visit to the convent, leaving prescriptions for six sisters The fee was $3 00 for all six In another instance, an examination of the chest with an opinion was charged at $3 00 The fee for services at night was $10 00 A separate charge was made for the use of a speculum, this charge was priced at $2 00 Minor surgery varied in price from $2 00 to $5 00 Acupuncture cost $2 00, the use of a seton $3 00, the creation of an issue was $5 00 The treatment of a stricture with a bougie cost $2 00 to $3 00 An abscess was opened for $3 00, but the treatment of gonorrhea was priced at $5 00 A delivery varied in price from $15 to $30, the usual cost was $20 The costs of major surgery varied A lithotomy was charged at $87, the fee for ligating a carotid artery was $25, and a tumor was removed for $10 In the aforementioned amputation of an arm at the Harlem Railroad, a fee of $35 was charged A charge of $25 was made for a tracheotomy The same fee was charged for removing a nasal polyp

What kind of an income did the doctor derive from this practice? Our information on this point covers the period from April, 1846, to March, 1852, thus extending a period of two years and seven months beyond the last itemized entry in the book Dr Van Buren's gross income for the year from April, 1846, through March, 1847, was $856 Of this total, he received $310 in cash and booked $546 on credit The following year his practice brought him $441 in cash, and $2,023 on credit To this was now added $442 in cash for student fees Thus his total income increased to $2,906, of which he had received $883 in cash Year by year the grand total of Dr Van Buren's income increased From April, 1849, through March, 1850, he received $595 in cash fees from patients, $345 from students, and booked $2,792 on credit The total income was $3,732 Finally, from April, 1851, through March, 1852, his receipts were $450 from students, $887 in cash from patients, and $3,399 booked on credit, giving a grand total of $4,736

Attention must be called to the fact that fees booked on credit amounted to more than 70 per cent of the doctor's total income If one sub-

tracts the income derived from students' fees, the proportion carried on credit becomes even greater For a young doctor entering practice this was a heavy burden to bear, and complaints in the medical journals on this score were frequent Various efforts were made to deal with the evils of the credit system but without success And, as we all know, these are still with us

Summary

This brief report is intended to present a sample of the kind of data that may be derived from a study of a doctor's account book. Items in such records show the gradual spread of scientific medicine into practice Through the analysis of a number of such books one may trace how new methods entered practice and how older ones disappeared The development of specialization undoubtedly found its reflection in account books, and it would be of interest to trace this aspect of the history of medicine Finally, we return to the point from which we set out Analysis of a number of account books, comparison of this material with the data derived from fee bills, and the checking of the movements of medical prices against coincident changes of general price levels are all necessary before a firm foundation for an economic history of American medicine can be provided It is to be hoped that more American physicians will turn their historical interest toward material of this kind, which may very likely be available locally, rather than to the medicine of some distant period or place for the study of which the basic materials may not be available to them

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ELISHA BARTLETT, AMERICAN CLINICIAN

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(*From Mount Sinai Hospital*)

IN October, 1831, there appeared in New England a publication entitled *The Monthly Journal of Medical Literature and American Medical Student's Gazette* This was to be a journal devoted to medical history and to biographies of the famous men in medicine. Part of the editorial in the first issue read, "To the medical student and the young practitioner, to all those who aspire to any higher acquisitions than the knowledge that calomel purges and salivates and that tartarized antimony occasions vomiting, who are not willing to rest supinely satisfied in a routine familiarity which practice and habit render in the end almost mechanical—we cannot but think these matters must be interesting The devotion of an occasional hour to such pursuits must have a tendency to enlarge and liberalize the mind Delightful and fascinating in many respects as the study of his profession may be to him, there are many hours which must be occupied with mental and bodily drudgery He must make what to others would be loathsomeness pleasure to himself Amid the wear and tear, the toil and fatigue of such pursuits, he needs at times some intellectual recreation and stimulus, and where can he find one pleasanter or more appropriate than in surveying the career and studying the character of those who have trodden before him the same laborious path and who have followed it on to its high and bright consummation."

This editorial was written by Elisha Bartlett at the age of twenty-seven While the publication was short-lived, the author's ideas are still valid and timely It is hardly likely that young Bartlett, when he wrote this, knew that he would be able to follow the path to its "high and bright consummation" and that for this reason we would be reviewing his life and contributions today

Elisha Bartlett was born in Smithfield, Rhode Island, in 1804, at the start of a century which Garrison in his *History of Medicine* labels "The Beginnings of Organized Advancement of Science "[1] His parents were Quakers, and his early

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life was a peaceful and happy one He attended several of the local schools but never received any formal degrees He next studied informally with several prominent New England physicians, as was the custom at the time, and then went to the Brown University Medical School He was graduated in 1826

At this time Bartlett went abroad and spent a year visiting the various medical centers in France, Italy, and England Some of the letters he wrote home are quite entertaining He described one of the professors at the medical school in Paris as looking more like a jolly stage driver or a good-natured, blustering butcher than anything else "He lectures sometimes standing, and sometimes leaning against a post, or straddling over a high stool, flourishing a lancet in one hand and a snuffbox in the other, on the contents of which he is continually laying the most inordinate contributions He wears during the time an old rusty-looking black cap The familiarity of the distinguished surgeons and physicians with their students struck me at first sight very forcibly, being in such perfect contrast to the proud port and haughty carriage of some of our New England professors I wish they might step into the Hotel Dieu and La Charité and take a lesson or two of Boyer and Dupuytren, barons of the Empire and two of the most distinguished surgeons in the world "

Bartlett returned to this country in 1827 at the age of twenty-three and set up practice in Lowell, Massachusetts, then a small textile village In 1829 he married Elizabeth Slater He was extremely interested in civic affairs, lectured on sanitation and hygiene, and, later, when Lowell became incorporated as a city, he was elected the first mayor after a hotly contested campaign He was re-elected the following year and then in 1840 was sent to the State Legislature

In 1839 Bartlett published an article in the *Lowell Courier* entitled, "A Vindication of the Character and Condition of the Females Employed in the Lowell Mills, Against the Charges Contained in the *Boston Times* and the *Boston Quarterly Review*" The Boston papers had reported that the working and living conditions of the Lowell factory girls were unsatisfactory Bartlett conducted a thorough personal investigation of the situation and concluded in this article that the charges were false, that wages were good, the social life very satisfactory, and the moral standards of the girls high He learned that many of the girls came from good homes and went into the mills because of the attractive wages, from which they hoped to accumulate a marriage dowry

The Bartlett of the early period was described by a Bishop Clark who said, "Some twenty-five years ago I used to meet a young man in the town of Lowell, whose presence carried sunshine wherever he went, whose tenderness and skill relieved the darkness of many a chamber of sickness, and whom all the community were fast learning to love and honor" From descriptions written by Elisha Huntington and Oliver Wendell Holmes, Bartlett apparently had a gentle, warm, and generous nature He was very sociable, very lively, a great conversationalist, a man of refined and elegant yet unpretentious manners, and he was respected both inside and outside his profession

Bartlett's time was not devoted exclusively to medical practice, a great part of it was spent in teaching In those days, as is well known, training in American medical schools was entirely theoretic 'Many of the schools were located in rural areas Lectures were given, some dissection was done, a few operations were watched, and the student then left school to become associated with a general practitioner From the latter the practical aspects of medicine were learned

Many of the instructors stayed at the school for only one or two sessions and then migrated to another school, their students often following them Bartlett belonged to this group of "peripatetic teachers" as Osler called them, among which were such famous men as Dunglison, Flint, Parker, Drake, and Clark.

Bartlett taught, in all, at eight different schools, returning between sessions to his home in Lowell His first appointment was in 1832 when he became professor of pathologic anatomy and materia medica at Pittsfield After eight sessions here he went to Dartmouth in 1839 where he held the Chair of Practice One of his faculty colleagues at Dartmouth was Oliver Wendell Holmes In 1841 Bartlett accepted the Chair of Medicine at Transylvania University in Lexington, Kentucky, at that time probably the foremost medical school in the West From here he wrote to a friend, "In school we are getting on very well The class is of a good size, rather larger than last year, worth a little over $2,000, intelligent, attentive, well-behaved I have given 58 lectures, and we have just six weeks more My own success has been good enough I think So far as I have means of judging my instruction is entirely satisfactory, to say the least The style of lecturing here is quite different from what it is in the East—more emphatic, more vehement It is quite necessary to fall somewhat into the popular style We stand in the lecture room on an open platform with only a little movable desk or table on which to lay our notes On the whole I like it better than being seated in a desk as they are in Boston "

Again in 1843 Bartlett wrote that his receipts

for the session were more than two thousand dollars "There are a few good families who send for me, and I get occasionally a consultation. We never make a charge less than a dollar, and consultation visits in ordinary cases—the first visit—are $5 00 These few enable me, situated as I am, to make even a small and easy business somewhat profitable I have made one visit twenty-five miles distant for which the fee was $25, and I saw a second patient at this time, incidentally, for $5 00 more You see from all this that my place gives me rather more money than I could earn in Lowell, for a much smaller amount of responsibility and labor I have hardly, indeed, been called out of bed during the winter In a business point of view I feel quite content with my situation."

In addition to his practice and his teaching activities, Bartlett was an author, and one of considerable note He had a lucid, highly polished style and, aided by his fine cultural background, he wrote on many medical and related subjects In 1831 he translated a French biography of several famous French physicians During his lifetime he also helped publish several medical journals

In 1842 Bartlett published a book entitled *The History, Diagnosis and Treatment of the Fevers of the United States* This book, Osler says, is Bartlett's claim to remembrance as far as his medical writings go, and "It remains one of the most notable of contributions of American physicians to the subject"[2]

Behind the writing of this book we find a rather interesting set of circumstances Until the early nineteenth century no differentiation of typhoid from typhus fever was made There were then a few fragmentary publications by German and French physicians of some of the pathologic and clinical features of typhoid fever However, it remained for the Frenchman, Pierre Louis, working in Paris with Chomel and Andral, to give in 1829 the first complete description of the disease It was Louis who gave it its present name, typhoid fever

Studying at that time under Louis were some American students, among them W W Gerhard and James Jackson, who became thoroughly familiar with typhoid, the then prevalent form of idiopathic continued fever in Paris When these students returned to the United States, they found that this fever was also the most prevalent form in New England The English, however, maintained that typhoid and typhus were not distinct entities, but that the former was only a mild form of typhus Accordingly, Bartlett said in the preface to his book that since these standard English texts on fevers (which were the ones used by the Americans) did not describe the common type of fever seen in New England, these books were obsolete Furthermore, Bartlett said, the work done on these fevers by Louis in France and by his American students in this country was not generally and quickly available to the American physician

For these reasons Bartlett thought it necessary to provide a new complete work on this subject He therefore collected and carefully arranged all the available literature, impartially weighed the evidence, and concluded in the book, as Louis had already done, that typhus and typhoid were two distinct forms of idiopathic continued fever Although Bartlett made no original contributions he gave a remarkably accurate and comprehensive description of the fevers, especially typhoid The author states, "My book aims at no other excellence and no higher merit than that of being a methodical and compendious summary of the actual state of our knowledge upon two most common and most important diseases"

In addition to the sections on typhoid and typhus, the continued fevers, there is a section on periodical fever (which we now know as malaria) and one on yellow fever The book was accepted with acclaim by the leading physicians of the day

In 1844, Bartlett published another classic, *An Essay on the Philosophy of Medical Science* Under the leadership again of Louis in Paris there arose the modern French school of medical observation This group attempted to stop the reign of abstract speculation and theorizing which then dominated medical thinking Bartlett in this essay tried to introduce to American medicine their ideas and methods, methods which had produced the outstanding work on typhoid fever This school, he explained, adhered strictly to the study and analysis of morbid phenomena, this study was very detailed and accurate, and the numerical method of statement and of analysis was used It rejected as a legitimate element of science all a priori reasoning and speculation. It "holds as of no binding authority all the traditions of the fathers, unless they are sustained or sanctioned by its own experience" "Science," Bartlett said, "consists of ascertained facts obtained only by observation and experience which are then generalized into laws and principles"

In the essay, the author, following along his analytic lines, lashed out against the polypharmacy so popular at that time He decried especially the heroic remedies in use, and he cited Chomel's law—it is only the second law of therapeutics to do good, the first being not to do harm

In this age of chemotherapy and antibiotics it is interesting to read what Bartlett wrote about the future prospects for the control of disease

Mentioning consumption and cancerous diseases on the one hand, and hydrophobia and tetanus on the other as examples of chronic and acute diseases which have withstood all attempts at control, he says, "For anything that yet appears to the contrary, there are many morbid conditions, which art has no power to remove—the means for the removal of which, I mean to say, do not exist It is not, merely, that we have failed to discover them, it may be that they are not in nature The morbid conditions may absolutely have no therapeutic or curative relationships" He says, however, that some of the chronic diseases, for example, consumption, may be controlled because the causes of many of these diseases are obviously to be found in the violations of the known conditions of health, we, therefore, have the power of avoiding these afflictions

This essay exerted a strong influence on American medicine There were many who resented Bartlett's attacks on prevailing doctrines and authorities Samuel Henry Dickson, writing of Bartlett's life, maintained that Bartlett's ideas were extreme, and that he minimized the need for hypothesis and theory in medicine [3] However, he admitted that Bartlett and his followers did much good by courageously attacking prevalent errors in medical practice and thinking

Dickson wrote, "His pen, we may truly affirm, was never idle," and in 1848 Bartlett published *An Inquiry Into the Degree of Certainty of Medicine and Into the Nature and Extent of Its Powers Over Disease* This was in answer to statements by some stressing the imperfections of medicine Bartlett admitted to some shortcomings but gave a very eloquent description of all that doctors had done and would continue to do for mankind Some contemporaries, however, believing that the profession never had been doubted in the first place and that Bartlett's arguments were of no great merit, strongly criticized him One review said, "This is a curious production, the like of which we have seldom seen from the pen of anyone who had passed the age of a sophomore"

Bartlett's analytic approach is evident in his book on fevers and again is well shown in his *History, Diagnosis and Treatment of Edematous Laryngitis* This, written in 1850, is a model of accuracy and thoroughness At the bedside, it was said, Bartlett also was a keen and accurate observer

Bartlett was appointed to the Chair of Materia Medica and Medical Jurisprudence at the College of Physicians and Surgeons in New York in 1851, his last teaching post While here he delivered the memorable, eloquent address on the "Times, Character, and Writings of Hippocrates" This was only one of his many talks on a variety of subjects during his life As a lecturer Bartlett was a tremendous success, his clearness and powers of illustration being notable

After only two teaching sessions, because of an obscure nervous disease, Bartlett retired to his birthplace in Rhode Island Here, in his last days, he wrote a small book of poems about the people in the novels of Charles Dickens Bartlett had always been a great admirer of Dickens, having met him in this country and exchanged letters with him subsequently These verses bring forth clearly the warm, philanthropic, humanistic nature that was Bartlett's

Finally, having become paralyzed, Bartlett died in 1855 at his birthplace, leaving a well-marked place for himself in American medical history Elisha Huntington, in a memorial address said, "I utter but the sentiment of my cotemporaries when I say that no more honorable, high-minded man ever adorned the walks of our profession" [4]

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Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo

THE INTERRELATIONSHIP OF PAPILLEDEMA AND POLYCYTHEMIA

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THE marked frequency of neurologic and vascular manifestations in polycythemia is well known and has been amply discussed in the literature [1-5] It has been shown that fully one third of the patients with polycythemia seek medical aid primarily because of the neurologic symptoms [1] Headache, tinnitus, vertigo, blurring of vision, loss of consciousness, convulsive seizures, and aphasia may be prominent in the clinical picture. A survey of the literature indicates that papilledema is an uncommon complication of polycythemia, but, when it occurs, it adds greatly to the problems of diagnosis and management of the case In a series of 163 cases of polycythemia vera reported from the Mayo Clinic, eight were suspected of having a brain tumor Of these, four had choked disks Unless it is realized that polycythemia per se can cause papilledema, unnecessary intracranial exploration may be carried out [2,4,6] Drew and Grant gave a complete review of the literature on the relationship of papilledema and polycythemia [7] They collected 17 cases of papilledema due to polycythemia per se and reported a case of their own. We have recently had the opportunity of studying two patients in whom, because of the presence of papilledema and other neurologic signs and symptoms, an expanding intracranial lesion had to be excluded In both cases polycythemia was found to be the cause of the papilledema

Case Reports

Case 1 —M M , a forty-eight-year-old doll maker, consulted one of us on November 23, 1945, with the complaint of severe headaches of three months duration The pain was generalized but was more severe over the frontal region, lasting several weeks at a time, disappearing, and then returning At times it was accompanied by nausea but never by vomiting Irritability and weakness had been noted by the patient, but there was no evidence of change in personality During the previous two weeks, blurring of vision and occasional dizziness was noted At times there was unsteadiness of gait His past history indicated the existence of chronic cough associated with profuse expectoration of mucoid sputum of about six years duration Hemoptysis was denied A diagnosis of chronic asthmatic bronchitis had been made by the physician who attended him, and allergy tests had been done with entirely negative results Of late the patient had become aware of exertional and nocturnal dyspnea.

Physical examination revealed a patient of sthenic habitus with moderate dyspnea and cyanosis Orientation was normal. The pupils were equal and reacted to light and accommodation Nystagmus was not present, the extraocular muscles were intact The retinal veins showed marked tortuosity and engorgement Bilateral papilledema of two diopters was present No hemorrhages or exudates were noted Minimal arteriolar sclerosis was present The chest was "barrel-shaped" and hyperresonant on percussion, and generalized, expiratory musical rales were present The heart was not enlarged, the sounds were of fair quality and of regular sinus rhythm The second pulmonic sound was louder than the second aortic sound The liver and spleen were not palpable Rectal examination was negative The extremities showed no edema or clubbing Except for the papilledema, there was no evidence of cranial nerve involvement All deep and superficial reflexes were intact There were no pathologic reflexes present Sensation was normal Cerebellar signs were absent There was no aphasia or apraxia.

This history of headaches, blurred vision, and disturbances in gait, together with the finding of bilateral papilledema, pointed to an expanding intracranial lesion The possibility of polycythemia was not considered at this time.

Neurologic examination disclosed a well-developed and well-nourished middle-aged man who showed bilateral papilledema and very slight dysdiadokokinesia These were the only abnormal findings His condition was regarded as one of an expanding intracranial lesion, either in a midline or, more likely, a right cerebellar situation

The patient was hospitalized for further study on November 27, 1945 The laboratory data included normal urine, normal blood Wassermann tests, blood sugar of 108 mg per cent, urea nitrogen 11 4 mg per cent, prothrombin time 12 seconds (control 11 9 seconds), red cell fragility normal, red blood counts (Table 1), white blood count 9,750 per cu. mm., mature polymorphonuclear leukocytes 68 per cent, stab forms 3 per cent, lymphocytes 26 per cent, and monocytes 5 per cent On December 4, 1945, there were 11,500 white blood cells, mature polymorphonuclear leukocytes 79 per cent, stab forms 3 per cent, lymphocytes 18 per cent, bleeding time was three minutes, coagulation time four minutes, sedimentation rate, on two occasions, zero, circulation time with ether three seconds, with decholin fourteen seconds The venous pressure (antecubital fossa) was 120 mm of water An internal jugular vein puncture was attempted for a pressure determination but was unsuccessful

A spinal tap on December 4, 1945, showed an initial pressure of 230 mm of water The fluid was clear, containing 10 cells per cubic mm , of which 90 per cent were lymphocytes The total protein was 33 mg per cent, the sugar 109 mg per cent, chlorides 409 mg per cent. The spinal Wassermann and

colloidal gold were negative A spinal tap on December 12, 1945, showed an initial pressure of 190 mm. of water An electrocardiogram showed sinus tachycardia and right axis deviation There was elevation of the RT segments in leads 2 and 3 P_2 was large

TABLE 1.—Laboratory Data Showing Change in Blood Studies

Date	Red Blood Cells (Mil per Cu Mm.)	Hemoglobin (Per Cent)	Hematocrit (Volumes Per Cent)	Phlebotomy (500 cc Each)
11/27/45	6 07	114		
11/29/45	5 93	110	70 4	
12/4/45	5 89	114	71 7	12/10/45
12/11/45	5 8	110	60 78	12/12/45
12/13/45	5 87	110		
12/18/45	6 18	114		12/19/45
12/20/45	5 51	107		12/20/45
12/21/45	5 05	100	60 5	

and notched, and P_3 was large and upright These changes were consistent with the diagnosis of chronic cor pulmonale Visual field studies failed to reveal any abnormality Electroencephalography revealed no evidence of any focal lesion X-ray examinations revealed the lung fields to be emphysematous with diffuse increase in parenchymal markings The heart was not enlarged There was no evidence of bone disease of the skull The pineal body was faintly calcified and in its usual midline position Pneumoencephalography showed the ventricular system to be fairly well outlined The lateral ventricles and third and fourth ventricles were filled and showed no defects The response to phlebotomy was gratifying both symptomatically and hematologically (Table 1) The headache was dramatically relieved He was discharged on December 22, 1945, to be followed in the outpatient department Phlebotomies were done on January 15, 1946, and February 18, 1946 Eye checkup on the latter date showed the right disk to be clear, but the left still showed slight papilledema He subsequently reported to a blood bank for phlebotomy whenever severe headaches occurred

On October 18, 1946, he was admitted to the medical service of the Coney Island Hospital He gave a history of a respiratory infection five days before admission, followed by pain, swelling, and increase in temperature in the right leg The pertinent physical findings were as follows the patient appeared plethoric, cyanotic, and dyspneic, the conjunctivae were congested, the fundi showed venous engorgement with 3 1 arteriolar ratio Bilateral papilledema was present, and both fundi showed hemorrhages The blood pressure was 110/80 Regular sinus rhythm was present The heart sounds were of poor quality No murmurs were heard The lungs showed moist and crepitant rales bilaterally at the bases and generalized wheezing The liver edge was palpable three fingers below the costal margin, the spleen was not palpable The right leg was swollen and hot Three plus pitting edema and marked calf tenderness were present The left leg was normal. Neurologic examination showed no abnormalities except for the papilledema. The admission diagnosis was deep thrombophlebitis of the right leg and polycythemia with papilledema

On the following day, the dyspnea and cyanosis suddenly became worse, and peripheral collapse developed Examination showed marked dullness over the entire right chest with diminution of breath sounds in this area It was apparent that massive pulmonary infarction had occurred Symptomatic therapy was unavailing, and the patient expired within a few hours after the onset of infarction Postmortem examination was refused

On admission, the diagnosis of an expanding intracranial lesion, presumably tumor, seemed obvious The laboratory reports showing the presence of polycythemia directed our attention to the possible causative relationship of the polycythemia and the papilledema. Neurologic studies, including pneumoencephalography and electroencephalography, were normal It was felt, therefore, that an expanding lesion had been definitely excluded The sequence of events was as follows longstanding asthmatic bronchitis with resulting cor pulmonale and secondary polycythemia leading to papilledema.

Case 2.—J M, aged sixty-two, white, male, Russian-born barber, was admitted to the hospital on August 29, 1947, and died on September 15, 1947

The family revealed that the patient had shown personality changes for the past six months He had become dull, apathetic, and irresponsible His writing ability and his memory for recent events had become impaired, drowsiness and depression had become manifest

On June 29, 1947, while at work as a barber, the patient fell, striking his right occipital region on the floor He was said to have felt faint before falling and to have remained unconscious for several minutes after falling Portable roentgenograms of the skull were reported as negative The patient was kept in bed three to four weeks, during which time weakness of the left arm, but not of the left leg, was noted At the end of this period he was allowed out of bed and revealed, in addition to the left arm weakness, a tendency to drag the left leg During the week prior to admission to the hospital, weakness of the left arm and left leg became more marked, twitching movements of the fingers of the left hand were noted, the speech became slurred, and the patient's mouth was pulled up on the right side Intense headache developed the day before admission The patient's vision had appeared disturbed since the accident No history of past hypertension was elicited

Physical examination revealed a dull, apathetic, well-nourished, plethoric male, with no dyspnea, orthopnea, or edema The pupils were equal and regular and reacted to light Marked suffusion of the conjunctivae was evident The extraocular muscles were normal Funduscopic examination revealed edematous disks with elevation of three diopters The retinal veins were markedly engorged, the arterioles were narrowed and tortuous The tongue was beefy red and protruded to the left. Left central facial paresis was noted The neck veins were engorged The lungs were clear The heart

was enlarged to the left, the second aortic sound was accentuated, sinus tachycardia at a rate of 110 per minute was noted, and no murmurs were audible The liver and spleen were not palpable Paresis of the left upper and lower extremities was evident The deep reflexes were more active on the left, the Babinski sign was present on the left, while the left cremasteric and abdominal reflexes were absent, the right cremasteric and abdominal reflexes were present, a left hemisensory defect was evidenced by delayed withdrawal to pinprick.

The laboratory findings included the following data Polycythemia was evidenced by the blood counts of 6,800,000 erythrocytes per cu mm. with a hemoglobin of 18 0 Gm. on admission and on repeated examinations 7,200,000 red cells with 18 0 Gm. of hemoglobin, 7,140,000 red cells with 17 5 Gm of hemoglobin, 8,000,000 red cells with 21 0 Gm. of hemoglobin The white blood count was 8,000 cells per cu mm with a normal differential. The platelets numbered 205,000 per cu. mm. The hematocrit readings varied from 68 volumes per cent to 72 volumes per cent The blood specific gravity was greater than 1 070, and the total proteins were 6 5 Gm per cent The sternal bone marrow revealed an increase in the erythroblastic elements consistent with the diagnosis of polycythemia The blood serology was negative, the blood glucose was 92 mg per cent, the urea nitrogen 36 mg per cent, the creatinine 1 8 mg per cent, and the blood calcium 9 5 mg per cent The maximum sedimentation rate was 1 mm in five minutes Spinal tap on September 2, 1947, revealed a pressure of 12 mm of mercury 20 cc of crystal clear fluid were withdrawn Examination revealed glucose 100, chlorides 701, globulin negative, 1 white blood cell and two red blood cells per cu mm. The blood pressure readings were 156/90, 154/92, and 160/92

Roentgenographic studies revealed a linear skull fracture in the right parietal region Chest study showed minimal left ventricular prominence and moderate elongation of the aorta

The venous pressure in the antecubital veins was 6 cm. of water The jugular venous pressure was not determined. The decholin circulation time was fifteen seconds

The temperature ranged between 98 6 and 99 8 F by rectum and rose terminally to 103 F

Repeated phlebotomies of 300 to 500 cc of blood were not efficacious in influencing the course of the patient With continuation of a downhill course, exploration to rule out an expanding intracranial lesion was deemed advisable The patient was then transferred to a neurosurgical service On September 13, 1947, biparietal burr holes were made under local anesthesia. The dura was opened bilaterally and the brain was seen to be full, pouting into opening on both sides No subdural blood was present in the region of the holes The wound was closed in layers with silk. A soft rubber catheter was inserted into the left lateral ventricle for continuous drainage On September 15, 1947, the patient expired at 1 50 P.M Postmortem was not obtained.

The problems presented in the management of this patient all revolve around the possible combinations of pathogenetic factors concerned in the association of polycythemia and papilledema

On admission it was obvious that the man had a left hemiparesis as a result of damage to the right side of the brain Whether this were due to thrombosis in the right internal capsule secondary to polycythemia or arteriosclerosis or whether the skull injury had been followed by subdural hematoma with compression of the cortical motor areas was an important matter to decide Then, too, the patient had experienced changes in his personality and behavior patterns, which, in association with localizing signs and papilledema, brought the question of frontal lobe neoplasm into the differential diagnosis Even though similar personality and behavior pattern changes are well known in the course of polycythemia, secondary to multiple small cerebral thrombi, the question was not an easy one The choice lay between a simple explanation of polycythemia, papilledema, and neurologic findings—all on the basis of polycythemia per se—and an expanding intracranial lesion (subdural hematoma or neoplasm) in a patient with polycythemia

The best procedure seemed to be that suggested by Tinney, Hall, and Giffen [1] When the differential diagnosis is difficult to make—the cerebral manifestations of polycythemia vera on the one hand and brain tumor on the other—they suggest treating the patient first for the polycythemia. When the blood volume returns to normal, the cerebral manifestations improve, except where brain tissue has been injured by hemorrhage or thrombosis However, if cerebral manifestations progress despite treatment, a mass-expanding lesion should be suspected

In our case, we resorted to operative intervention. Although no postmortem examination was obtained, the findings suggest that the pathogenesis of the neurologic findings and the papilledema were all the result of polycythemia

Discussion

The interrelationship of polycythemia and papilledema can best be discussed under the following classifications

1 Polycythemia and papilledema, the latter resulting from the polycythemia per se

2 Neurogenic polycythemia with papilledema of diencephalic origin or with subtentorial tumors.

3 Polycythemia and papilledema in association with an expanding intracranial lesion not causally related to the polycythemia, eg, subdural hematoma or neoplasm

Group 1—The mechanism by which polycythemia causes papilledema depends on an increase in cerebrospinal fluid pressure resulting

from plethora of the intracranial venous system This was demonstrated by Loman and Dameshek in a patient with polycythemia, secondary to emphysema [8 9] Their patient, a forty-one-year-old man, complained of headaches and progressive loss of vision Bilateral papilledema was present Red blood counts varied from 8,100,000 to 9,000,000 per cu mm The spinal fluid pressure was 380 mm. of water Determination of the venous pressure in the cubital fossa was 80 mm of water and in the internal jugular vein 300 mm of water Following repeated venesections, the cerebrospinal fluid pressure and the internal jugular vein pressure became normal The papilledema disappeared as did the headaches and amblyopia

Case 1, observed by us, showed a similar response to phlebotomy with dramatic relief of the headache and almost complete, although temporary, relief of the papilledema Further observations on the relation of the internal jugular vein pressure and the spinal fluid pressure in cases of polycythemia should be carried out It is clear that thrombosis of the intracranial venous sinuses was not present in the cases of Loman and Dameshek or in our cases There was no clinical evidence to indicate any involvement of the cavernous, sagittal, or transverse sinuses, and, furthermore, the Queckenstedt test showed normal spinal fluid dynamics

Group 2—Experimental and clinical evidence suggests the existence of a vegetative center in the diencephalon concerned with erythropoiesis [10 11] Polycythemia has been reported as a complication of chronic encephalitis, narcolepsy, acromegaly, tumors of the hypophyseal region, and luetic involvement of the pituitary infundibular region.

Guillain reported a patient with an adenoma of the pituitary associated with polycythemia (red blood cells 6,510,000 per cu mm) [12] Removal of the neoplasm resulted in disappearance of the polycythemia, and one year later the blood count was 4,760,000 per cu mm

That neoplasms of the cerebellum can give rise to polycythemia was demonstrated by the reports of Walker and his associates [13 14] They described three patients who manifested polycythemia in association with papilledema In each case ventriculography revealed internal hydrocephalus, and surgical intervention disclosed a cerebellar tumor, which was removed. In all three cases the tumor was shown on pathologic study to be an hemangioblastoma Postoperatively, complete disappearance of the polycythemic state and the papilledema occurred. During the follow-up period (seven months to one year), there was no return of the polycythemia

It is interesting to note that in these cases the white blood count was normal and the spleen not enlarged, in contrast to what we find in polycythemia vera Two mechanisms were suggested to explain the occurrence of polycythemia with posterior fossa lesions The internal hydrocephalus might cause functional changes in the diencephalon disturbing the center for erythropoiesis It is difficult, however, to see why only a single function of the diencephalon should be selectively influenced The other explanation, which seems more likely, is that an arteriovenous shunt in the cerebellum through the vascular tumor could be the cause of functional disturbance in the medullary vegetative centers

Group 3—Polycythemia vera can be complicated by a subdural hematoma or a cerebral neoplasm not etiologically related to it In such cases operative intervention may lead, because of blood loss, to a transient disappearance of the polycythemia but within a few months the blood counts will be back to preoperative levels

Therapeutic Considerations

When papilledema is associated with polycythemia, thorough neurologic study should be carried out Examination of the visual fields, electroencephalography, and ventriculography will be necessary to exclude an expanding intracranial lesion The response to phlebotomy will be gratifying in cases in which there is no associated expanding lesion If the cerebral manifestations progress despite adequate control of the polycythemia, an expanding lesion is to be suspected, and exploration will have to be done

Summary

1 The polycythemic state may simulate, may result from, or may be associated with an expanding intracranial lesion

2 Two cases of polycythemia with papilledema simulating brain tumor are described

3 The importance of thorough neurologic study of all polycythemic patients is stressed

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LEUKEMIA, LYMPHOSARCOMA, AND HODGKIN'S DISEASE

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THE leukemias, as well as those diseases which are categorized by Wintrobe as chiefly affecting the lymph nodes, viz , lymphosarcoma and Hodgkin's disease, have led to varied speculations as to their origin and interrelation.[1] Thus, the histologic appearance of lymph nodes from chronic lymphatic leukemia is frequently indistinguishable from that appearance in lymphosarcoma Similarly, reports are not uncommon describing the apparent transformation of lymphosarcoma to leukemia either of the acute or chronic, myeloblastic or lymphoblastic varieties [1]

Hodgkin's disease, which seems from some considerations to be a bridge between infection and neoplasia, certainly behaves clinically as a malignancy In some cases its activity is indistinguishable from lymphosarcoma, and the occurrence in Hodgkin's disease of nodes which are indistinguishable from lymphosarcoma is not unknown

Perhaps most perplexing is the relation between the acute and chronic leukemias Are the two conditions fundamentally the same disease, or are they different entities? Craver, as the result of study of the voluminous material at Memorial Hospital, New York City, has stressed the shadowy borderline between various lymphomas and leukemia [2]

In view of the perplexity of the problem it seems pertinent to examine these diseases from a dynamic point of view in addition to the static picture presented on a histologic slide or blood smear This has become increasingly possible with the advent of the more recent studies in chemotherapy of neoplasia as well as certain other biochemical studies

An attempt will be made in this paper to evaluate the similarities and differences of diseases in this group from the point of view of the relations to in vivo and in vitro factors Thus, the following outline will serve to indicate some of the biologic and biochemical features by which malignant diseases may be characterized

1 Age of onset of the disease
2 Causative factors where known
3 Systemic reactions of the host
4 Biochemical and biologic reactions of the neoplasm
   (*a*) in vivo studies
   (*b*) *reactions to chemotherapy*
   (*c*) reactions to radiation

Age of Onset

While no hard and fast distinction can be made on the basis of the age of onset of these disease entities, it is clear that certain age predilection does exist Thus, the acute leukemias are most prevalent in childhood, while Hodgkin's disease usually does not appear until after puberty and is most common in the young adult On the other hand, chronic leukemias of the lymphatic and myelogenous varieties are found more often in the fourth to sixth decades Lymphosarcoma may appear at the extremes of life, although the majority of cases occur in the middle decades

Causative Factors

These observations pose a challenging problem as to a possible relation to endocrine balance Thus, it has been noted that estrogen administration in most strains of mice leads to an increased incidence of leukemia and lymphoid tumors [3–5] It has also been shown that testosterone administered with estrogens antagonizes the tumor-accelerating effect of the estrogens, although, when given alone, it neither accelerates nor retards the tumor development [6] It is also of interest to note that the carcinogenic hydrocarbons can induce myelogenous, monocytic, and lymphosarcomatous leukoses, while the estrogens induce only locally invasive lymphatic tumors or generalized lymphatic leukemia

The subject of causative agents in this group of diseases is as replete with inferences and ignorance as other malignant neoplasia However, Grand has reported on the purification and properties of an active agent in Hodgkin's disease.[7] An ultrafiltrable agent was extracted from the chest fluid and lymphoid tissue of patients with Hodgkin's disease It is apparently capable of producing specific changes in tissue cultures of normal chick, rat, and human lymph nodes, namely, the appearance in the lymphoid and reticular cells of specific cell inclusions and a relatively rapid deterioration of these cells The agent could not be isolated from patients with lymphosarcoma or leukemia Whether or not one is inclined to interpret these findings as indicative of an infectious process in Hodgkin's disease, it does provide a unique differentiation between this and the other diseases affecting the lymph nodes

Systemic Reactions of Host

The striking differences in clinical course and prognosis of these diseases cannot be overlooked Certainly, the fulminating course of the acute leukemias is in marked contrast to the chronic leukemias where the patient may feel well, be active, and have only moderate anemia in spite of marked adenopathy and hepatosplenomegaly In Hodgkin's disease and lymphosarcoma, while the course is usually much more protracted than acute leukemia, it is unusual for the patient to feel well and be active in the presence of adenopathy and hepatosplenomegaly

Attention is called to the studies on the reducing power of plasma as reported by Black [8 9] Examination of approximately 1,600 samples of plasma from normal individuals and patients with and without malignant neoplastic diseases revealed a definite decrease of the reducing power associated with approximately 80 per cent of the cases of malignant neoplasia Less than 5 per cent of the control group showed such changes The results of examination of a series of the diseases under consideration are summarized in Table 1

It will be noted that there is a marked difference in the reaction of the chronic leukemia group as compared to the other diseases We feel that this finding is significant and indicates a point of difference between the chronic leukemias and the other diseases under discussion

Reactions of the Neoplasm

In Vivo Studies

Detailed studies of biochemical changes in the tissues and cells of this group of diseases are sparse, and the results not clearly definitive Thus, studies have been made on the tissue metabolism of bone marrow [10] Except for a relatively high respiratory quotient (0 96), the metabolism of the myeloid cells is indistinguishable from that of malignant cells On the other hand, normal lymphatic tissue possesses a distinctly lower anaerobic glycolysis than is found in spontaneous mouse lymphatic leukemia [11–13]

Diverse data on biochemical changes in lymphosarcoma, lymphomas and leukemias are tabulated by Greenstein.[14] In general, the deviations listed are in keeping with changes found in other malignant neoplastic diseases On the other hand, Greene reported an inability to transplant human tissue from Hodgkin's disease, lymphosarcoma, and leukemia to the anterior chamber of the guinea-pig eye [15] This is interpreted by him as indications that they are not neoplastic diseases

Table 1.—Presence of Decreased Reducing Power of Plasma (Malignant Type Reaction) in Diseases Affecting Lymph Nodes

Disease	Number of Cases	Number with Decreased Reducing Power	Per Cent with Decreased Reducing Power
Hodgkin s disease	21	19	90 5
Lymphosarcoma	23	22	95 9
Acute leukemias	19	16	84 2
Chronic lymphatic leukemia	9	5	55 5
Chronic myelogenous leukemia	5	2	40 0

Study of the differential sensitivity of cells from normal lymph nodes, lymphoid cells from Hodgkin's tissue, lymphosarcoma, and leukemia was made by Chambers *et al*, using the tissue culture technic [16] They found the critical toxic level for the lymphoid cells of the various tissues to tetramethyl-o-phenylene diamine to be as follows

Normal lymph nodes (human and rat)	0 0075 M
Hodgkin's disease	0 0025 M
Lymphosarcoma (human and rat)	0 001–0 0025 M
Leukemic node (human)	0 001 M

These findings are quite parallel to the x-ray sensitivity of the diseases

Reactions to Chemotherapy

The use of a therapeutic trial of specific drugs as an aid to diagnosis is an established procedure in medicine By the same token, the response of neoplastic tissue to specific chemicals or modes of therapy may be used to categorize them and to throw light on their metabolic activity We shall consider the reactions of the diseases under discussion to four diverse chemical entities which have been shown to have reproducible destructive action on neoplastic tissue

Arsenicals—The use of Fowler's solution for the treatment of chronic myelogenous leukemia is well known Definite remissions may be produced, and the decrease in circulating granulocytes is distinct and quite readily achieved In contrast, little or no effect is obtained in chronic lymphatic leukemia, the acute leukemias, Hodgkin's disease, or lymphosarcoma

Urethane—Striking effects on the blood count in chronic myelogenous leukemia was reported by Haddow *et al* [17] It was shown that remissions in the blood count and clinical course could be induced by the use of urethane The effects produced were similar to those achieved by x-ray

Chronic lymphatic leukemia may show favorable response in some instances but not nearly as regularly or dramatically as myelogenous leukemia

In acute leukemia the effect of urethane is not as striking Although some instances of decrease in the immature white cells of the polymorphonuclear series have been noted, the results are disappointing and sporadic

There is no evidence that urethane is of any real value in the treatment of Hodgkin's disease or lymphosarcoma

Nitrogen Mustards—These have been extensively tested in various neoplastic diseases Excellent reviews covering the use of these compounds may be found in the American Association for the Advancement of Science, Symposium on Approaches to Tumor Chemotherapy [18] It is generally agreed that Hodgkin's disease shows marked sensitivity to these agents resulting in regression of glands and clinical remissions of varying lengths

The results in the treatment of lymphosarcoma, while somewhat similar to those in Hodgkin's disease, are not as constant or as striking

Chronic lymphatic leukemia may respond in some cases with a drop in count and partial remission However, the group survival is much poorer than in Hodgkin's disease The results in chronic myelogenous leukemia are not very noteworthy, and only slight specificity is demonstrable in the leukemic cells In acute leukemia the action is again lacking in specificity although some temporary remissions have been reported

Glycolytic Inhibitors—The effect of sodium fluoride, iodoacetic acid, and malonic acid on malignant neoplastic tissue was reported by Black and Kleiner and Black, Kleiner, and Bolker [19 20] Studies of their cellular and tissue effects were reported by Bolker, Black, and Kleiner [21] While the use of these agents is still in its early stages, it is singularly important that they do not have any noticeable effect on normal tissues in the doses employed

While improvement has been obtained in acute leukemia, lymphosarcoma, and Hodgkin's disease, no change attended the use of these agents in chronic lymphatic or chronic myelogenous leukemia The distinct separation of the chronic leukemias on this basis is noteworthy

X-Ray

The sensitivity of abnormal cells to radiation closely parallels the sensitivity of the normal structures from which the neoplastic cells arose Thus the reaction of Hodgkin's granuloma will vary in its sensitivity to the amount of fibrous tissue present The lymphocyte is notoriously sensitive to the x-ray beam Large lymphosarcomatous masses will respond to small doses of radiation by immediate and, at times, almost miraculous diminution in size The lymphocyte in the leukemic states also responds, but there is usually a lesser response, in that leukemic glandular masses will not shrink to the extent of lymphosarcomatous tissue The lymphocytes in the circulating blood are also sensitive to small doses of radiation, and this, in some ways, hastens their maturation and discharge from the circulating blood The effect of radiation on the abnormal granulocytic cells, myelocytes, and more mature forms is even more striking than seen in its effect in lymphatic leukemia Radiation induces a reduction in the numbers of white blood cells within the peripheral blood stream, diminution in the size of the spleen and of leukemic masses, and usually results in definite clinical improvement

This clinical improvement following moderate doses of radiation is practically never observed in the treatment of acute leukemia In fact, radiation even in smallest doses frequently results in accentuation of symptoms and a more rapid downhill course in the patient so treated These observations are shown in Table 2

The use of the therapeutic response to radiation in diagnosis has also been suggested by Palazzo and Desjardins [22–24] These results are in agreement with our own

Discussion

The use of various dynamic points of reference would seem to distinguish chronic lymphatic leukemia, chronic myelogenous leukemia, the acute leukemias, Hodgkin's disease, and lymphosarcoma By this means a consecutive differentiation of the various diseases is possible, very much as with a flow chart in chemical analysis The results obtained with the reducing time studies and the effects of glycolytic inhibitors seem to separate the chronic leukemias from the other diseases under discussion While the implications of these observations are still incomplete, they provide an interesting departure for further investigation

Custer and Bernhard have reported on an unusually complete study of biopsy and autopsy material from the Army Institute of Pathology [25]

TABLE 2.—EFFECT OF X-RAY

Disease	Local Effect of X ray	Constitutional Effect of X ray
Hodgkin s disease	Improvement which varies with chronicity of process	Improvement which varies with chronicity and extent of disease
Lymphosarcoma	Immediate and striking local effect	Precipitous local effect may sometimes result in more rapid deterioration (overdosage)
Chronic lymphatic leukemia	Marked local effect	Improvement
Chronic myelogenous leukemia	Marked local effect	Improvement
Acute lymphatic leukemia	Minimal local effect	No improvement
Acute myelogenous leukemia	Minimal local effect	No improvement

Their conclusions include the following "(1) Instead of there being five or more separate and distinct neoplasms of lymphoid tissue, there is one (2) This single tumor entity may adopt any one of at least seven different histologic patterns (3) These may occur singly or in combination in a given patient, or there may be a distinct transition from one type to another during the course of the patient's disease"

Although this report indicates that the majority of cases subjected to repeat biopsy and autopsy examination may reveal transition between Hodgkin's disease, lymphosarcoma, fibrosarcoma, and leukemia, such fluctuation in the clinical course and biologic character of the disease is exceptional Thus, if the first biopsy of a glandular enlargement reveals lymphosarcoma, one may predict the clinical course, radiosensitivity, chemotherapeutic response, etc, with a high degree of accuracy This is also true for the other diseases under discussion This would not be possible were the character of the disease to vary with each change in the histologic picture described above Were this the case, clinical and therapeutic differentiation would be well-nigh nonexistent

It is well known that marked variation in histologic appearance may occur between primary carcinoma and its metastatic foci Furthermore, change may also occur in the appearance of the primary growth with the passage of time and the advent of therapy. Yet, the clinical and therapeutic characteristics of the disease are essentially a function of the primary growth and not given to change with each variation in histologic appearance of the metastases All too often, a metastatic lesion cannot be identified as to its site of origin, yet, for the most part, the course of the disease and site of metastases corresponds to the site of origin, not the appearance of the peripheral spread

By the same token it is not amiss to stress the importance of the identity of the early lymphomatous enlargement as indicative of the clinical and therapeutic characterization of the process Changes which occur later, subsequent to radiation or in tissue foreign to the site of origin, may often be as nonrepresentative of the original picture as may be metastatic foci in carcinoma

In summary, it appears justified to infer that despite apparent merging and overlap of histologic appearance in some instances, acute leukemia, chronic lymphatic leukemia, chronic myelogenous leukemia, Hodgkin's disease, and lymphosarcoma constitute distinct disease entities Such a concept has the value of utility in therapy and further investigation of the biologic characteristics of these diseases

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Note the dates for the 143rd Annual Meeting of the Medical Society of the State of New York—May 2–6, 1949, Hotel Statler, Buffalo

ADDITIONAL ANNUAL REPORTS

MEDICAL SOCIETY OF THE STATE OF NEW YORK

1948—1949

Report of the Malpractice Insurance and Defense Board

The Malpractice Insurance and Defense Board consists of the following

Leo F Schiff, M D , *Chairman*	Plattsburg
Christopher Wood, M.D , *Vice-Chairman*	White Plains
Charles Gordon Heyd, M.D	New York City
John F Kelley, M.D	Utica
Thomas M D'Angelo M D	Jackson Heights
Walter P Anderton, M D ex officio	New York City
James R. Reuling, M.D ex officio	Bayside
William F Martin, ex officio	New York City
Harry F Wanvig ex officio, *Secretary*	New York City

The following annual report is submitted

Introduction.—The major problems confronting your Malpractice Insurance and Defense Board during the past year have been (*a*) The continuing rise in the number and cost of malpractice suits and claims and the consequent increase in insurance rates, and (*b*) search for a satisfactory insurance company to replace the Yorkshire as the carrier of our Group Plan of malpractice insurance and defense

Rising Loss Costs—Causes —(1) The cost of losses, through the application of sound actuarial principles, determines insurance rates, and, under our agreement with the insurance carrier, we are obligated to meet our increasing loss costs by establishing adequate premium rates In 1921, the cost of $5,000 malpractice insurance protection was $18 Today, the cost of the same amount of protection is $55 in the metropolitan area and $40 in the upstate counties The difference between those rates illustrates graphically the extent to which malpractice loss costs have risen in this State

(2) Our study of these rising costs shows that they have not been the direct result of any one cause but the combined effect of several causes—some beyond, but many within, our power to control

(3) The factors beyond our control are the inflationary tendencies of the present day which have contributed materially to our rising costs.

(4) The factors which lie within our control are those which give rise to preventable suits and claims Physicians, of course, are not infallible, and a certain number of bad results will always occur due to the margin of error which is inherent in all human endeavors These are not considered preventable claims On the other hand, we must direct our attention toward the preventable errors which may cause claims, such as those due to carelessness or poor judgment

(5) An attempt to bring these matters to the attention of individual physicians was made in a letter from the Board which is being enclosed with each certificate issued after January 1 of this year, which, in part, reads as follows

> Every year, the public becomes more claim conscious, more claims of a serious nature are being filed, and courts and juries are holding the profession to strict accountability This demands, as never before, that every member of the Society exercise utmost vigilance to prevent carelessness both on his own part and that of his assistants and to limit his procedures to those he knows to be safe and accepted No operation or other procedure should be undertaken unless the doctor knows, beyond doubt, that he is competent to carry out the proposed treatment Last, but not least, the doctor, by every word and act, must convince the patient that he has the health, comfort, and welfare of the patient at heart

(6) We emphasize the fact that *behind every malpractice claim is a dissatisfied patient* This dissatisfaction may arise from a bad result, real or fancied, but aggravated in many cases by what the patient regards as careless, unsympathetic, or neglectful treatment by the doctor or by charges which he believes are out of proportion to the services rendered In some cases, these factors constitute the entire basis for the dissatisfaction. A small percentage of patients probably would not be satisfied with perfection itself, but, in far too many cases, the attitude of the physician himself is the chief, and in some instances, the only cause of the dissatisfaction. To these causes of claims we must again add that of criticism of the acts of another physician. Doctors have an obligation to their patients to inform them fully and accurately as to their condition, but there should be no room in our practice of medicine for needless criticism of fellow doctors.

(7) The growth of these preventable claims must not be allowed to go unchecked The time has come when we must unite in a carefully planned program to eliminate these and to reduce all malpractice actions to a minimum This program should consist of two parts, (*a*) elimination of undesirable risks from protection under our Group plan, and (*b*) prevention of claims at their source

Elimination of Undesirable Risks.—(1) Elimination of undesirable risks from the Group Plan may seem like locking the barn after the horse is stolen, but the possibility of being denied further insurance protection will do much to prevent carelessness, to stimulate better judgment, and to prevent the undertaking of procedures which members are incompetent to carry out.

(2) Last year, the House of Delegates authorized

this Board to deny renewal of insurance of a member found guilty of acts for which "no excuse, in common decency, can be found" In addition, the Council has authority under the Regulations Governing Malpractice Defense and Group Insurance to limit the amount of insurance which a member may have and to deny renewal of insurance of a member whose medical procedure, conduct, or attitude constitutes, in the opinion of competent medical opinion, a burden to the Group Plan more hazardous than that contemplated in the competent practice of medicine Action under these authorities has been taken in several cases, but it is believed that these penalties are too severe in many cases where a milder, temporary penalty would, in all probability, accomplish the desired result and at the same time preserve some measure of protection for otherwise worthy members of the Society

(3) In such cases, the Board recommends the adoption of a deductible average clause which, when attached to a member's policy, would make him a coinsurer with the company, and, as such, require him to bear some stated part of any future losses caused by him In the absence of any further claims against him, the deductible amount would be decreased from year to year until the member would again be granted full coverage This system has been in use for a number of years in several counties in California and has been responsible for a substantial decrease in the number of claims filed and in the cost of insurance The Board believes that it would be equally effective in New York and urges that it be authorized for application to our Group Plan if and when approved by the State Insurance Department

(4) To centralize the powers now divided between the Council and this Board and to implement the application of the deductible average clause where warranted in particular cases, the Board recommends that the Regulations Governing Malpractice Defense and Group Insurance be amended by adding the following paragraph at the end of Section II as it appears on page 21 of the Regulations published by the Society in 1946

> The authority to limit the amount of insurance protection granted to any member and the authority to withdraw the privilege of renewal of indemnity insurance under the Group Plan under conditions hereinabove stated is hereby delegated to the Malpractice Insurance and Defense Board and shall be one of the duties of the Board
>
> The Board may, in lieu of withdrawing the privilege of renewal of insurance from a member under the conditions stated, order that a deductible average clause in some given amount be applied to the renewal of such insurance
>
> Any member whose insurance is affected by a decision of the Board shall have the right of appeal to the Council. The decision of the Council shall be final.

Claim Prevention—(1) Last year, the House of Delegates instructed the Council to study the so-called "Alameda County (California) Plan" and to institute as soon as feasible procedures looking toward the employment of measures of like nature in the constituent societies or district branches of the Medical Society of the State of New York At a subsequent meeting of the Council, the responsibility for this investigation was turned over to this Board

(2) A preliminary study of the situation, through correspondence with officials of the Alameda County Medical Association, brought out the fact that the "plan" is a somewhat revolutionary and rather ambitious venture into wide fields of public relations, physician-patient relations, and medical economics, working at the county level Malpractice claim prevention is only a corollary part of this program Three of the members of this Board had an opportunity to contact the executive secretary of the Alameda County Medical Association at St Louis in December, and a subcommittee has been ordered to visit Alameda County without delay to complete the study on the ground In the meantime the claim prevention programs in New Jersey and Connecticut are being examined, and the Board hopes to complete these studies in time for inclusion with recommendations in a supplementary report to this House of Delegates

(3) In the supplemental report the Board will recommend a uniform plan of education, supervision, and cooperation at the county level, backed up, where necessary, by penalties in connection with a member's insurance at the State level

(4) The elimination of undesirable risks from the Group Plan and, if approved by the Insurance Department, the adoption of the use of deductible average clauses will be potent deterrents to carelessness, thoughtlessness, and taking unwarranted risks in the practice of medicine and will have an appreciable effect upon our loss costs But, in our opinion, the effect of these measures will be far less than that which will flow from a coordinated attack upon the underlying causes of malpractice actions at their source

New Insurance Carrier for the Group Plan.—(1) On July 1, 1948, the Yorkshire Indemnity Company asked to be relieved of the malpractice insurance business of the State Society When it was found that no other company was immediately available to take their place, they agreed to continue our business until a satisfactory replacement could be found, provided the Society would approve higher rates and consent to dividing the State for rating purposes, and that was done

(2) Now, we are glad the Board is able to report that it has found a first class company willing to undertake the Group Plan under favorable terms, and we have concluded an agreement with them which was approved by the Council on February 10, 1949 The company is the Employers Mutual Liability Insurance Company of Wisconsin, one of the largest mutual liability insurance companies in America. In 1947 their premium income was $51,000,000 and their assets at the year's end totaled $70,000,000 They are entered in every state in the union and are rated by Alfred M Best as A+ (excellent) AAAAA The present officers are the men who organized the company in 1911 and who have brought it to its present eminent position in the insurance world

(3) In agreeing to undertake our business, the company has accepted all the requirements for the Group Plan as adopted by the House of Delegates and amended by the Council

(4) Under the agreement with the Employers, 68.5 per cent of premiums will be available for the payment of losses as against 66 per cent under our present plan This will apply to all limits of insurance, whereas heretofore the permissible loss ratio has applied only to the minimum limits of $5,000/$15,000

(5) Malpractice is different from all other forms of insurance in that the excessive lag in the reporting of claims and the final disposal of them has, in the past, been responsible for high loss ratios which have developed many years after the rates were fixed and

the premiums collected. No one has yet found a satisfactory way to rate insurance of this character, and this fact, more than any other, has made the business unpopular among insurance companies. The Board has studied this problem in an effort to find a solution for it and has finally devised a plan whereby a part of each premium (referred to as surcharge) will be set aside to establish, in the hands of the insurance company, a contingent loss reserve or fund for each year's business, which can be called upon to pay unforeseen losses which may develop in the future, in the event that the base rates for that year prove to be inadequate When the loss liability for any given year has been determined with a reasonable degree of accuracy, any surplus remaining in the fund will be available to defray claim prevention activities, or as a credit to our loss experience for the purpose of reducing our rates or surcharges of later years. If the reserve fund proves to be inadequate, the surcharge of a subsequent year will be increased enough to make up the deficit

(6) In the meantime, the base rates will be computed on our regular experience formula, and every effort will be made to make them adequate to carry the business without calling upon the contingent reserve. This plan is calculated to prevent either side of the agreement from profiting, even unintentionally, at the expense of the other, and that is the prime purpose of our Group Plan.

(7) The Board visualizes that the contingent loss reserve will develop into a revolving fund which can be credited from one year to another, so that, in a few years, the surcharges can be reduced or discontinued entirely, thus reducing the amount of our annual premium.

(8) Our rates under the new agreement, predicated upon our loss experience up to the end of 1948, have been computed on the basis recommended by the Society's actuaries, Messrs Wolfe, Corcoran, and Linder, and the new permissible loss ratio They are as follows

	Basic Rates	Surcharges	Annual Premium
Metropolitan area including Westchester and Nassau Counties	$50	$5	$55
Upstate counties including Suffolk	$39	$3	$42

As will be seen, these do not affect the annual premiums in the metropolitan area, but they do increase the premium by $2 00 in the upstate counties where there has been a very heavy increase in loss costs However, these premiums include the surcharges forming the contingent loss reserve, which will remain the property of the Group Plan.

(9) Under the agreement, all policies will be issued on an annual basis except during the first six months when members who are then in the first six months of their annual policy year will receive six months policies to return them to their normal expiration dates Thereafter they will receive annual policies. This is necessary to redistribute the business throughout the year

(10) The agreement will become effective at 12 01 A M July 1 1949 At that time, the Yorkshire will discontinue writing malpractice insurance in this State and the Employers will take over The agreement has no expiration date, but it may be terminated by either party upon written notice to the other six months prior to the termination date Naturally, the Yorkshire Indemnity Company will continue to serve the members of this Society under the terms of policies that have been issued up to July 1, 1949, so long as liability under them remains

(11) Rates will be computed on the calendar year basis as heretofore, but all rate changes will become effective on the first of July

(12) In brief, we now have a large, prosperous company of high standing to take over our malpractice insurance under all the Society's requirements for the Group Plan at a 68 5 per cent loss ratio applying to all limits of insurance and at rates justified by our own tabulation of loss costs together with the contingent loss reserve plan devised and recommended by the Malpractice Insurance and Defense Board.

(13) In the opinion of the Board, this is the most favorable carrying agreement the Society has ever had, and it is most important that the members of the Society understand and appreciate the value to them of this splendid solution of their malpractice insurance problems.

TABLE 1.—NUMBER INSURED IN GROUP PLAN

County	Number of Members	Number of Insured	Per Cent Insured
Schoharie	20	20	100
Chenango	35	30	86
Cayuga	68	58	85
Greene	29	34	83
Sullivan	49	40	82
Tioga	30	24	80
Herkimer	62	48	77
Genesee	52	38	73
Oswego	58	42	72
Yates	21	15	71
Fulton	64	45	70
Broome	242	166	69
Clinton	53	36	68
Onondaga	472	320	68
Chemung	107	72	67
Rensselaer	159	106	67
Saratoga	70	46	66
Westchester	961	633	66
Queens	1 709	1 105	65
Madison	45	29	64
Nassau	773	494	64
Oneida	285	183	64
Jefferson	97	61	63
Schenectady	179	113	63
Steuben	100	63	63
Allegany	42	26	62
Tompkins	90	56	62
Albany	364	223	61
Chautauqua	122	74	61
Richmond	203	124	61
Wyoming	33	20	61
Delaware	42	25	60
Essex	38	23	60
Cortland	44	26	59
Warren	70	41	59
Monroe	687	396	58
Rockland	131	76	58
Wayne	64	37	58
Cattaraugus	91	52	57
New York	6 683	3 804	57
Niagara	153	86	56
Franklin	71	38	54
Kings	3 573	1 944	54
Orange	209	113	54
Orleans	21	11	52
Erie	1 066	537	50
Lewis	18	9	50
Putnam	20	10	50
Ontario	105	51	49
St. Lawrence	88	42	48
Schuyler	13	6	46
Ulster	104	47	45
Suffolk	329	146	44
Bronx	1 630	695	43
Otsego	61	26	43
Columbia	50	21	42
Livingston	45	17	38
Dutchess	223	80	36
Montgomery	71	23	32
Washington	41	13	32
Seneca	42	12	29
Totals	22 376	12 741	57

The Yorkshire Indemnity Insurance Company—(1) For the past thirteen years the Yorkshire Indemnity Company has carried the Group Plan and has lived up to the spirit as well as the letter of its agreement with the Society Not once has the Company resorted to any legal technicality or in any other way sought to avoid giving full protection to every member of the Society who needed it Mr Alan O Robinson, the executive vice-president, and his assistant, Mr Horace Crowell, have patiently sought to find constructive and helpful solutions for our malpractice insurance problems, and, in the face of constantly mounting deficits, they have continued to carry our business long after another company might have discontinued it

(2) Your Board feels it is but fitting, as we approach the termination of our fine association with the Yorkshire Indemnity Company, to record our deep appreciation to the Company and its officers for their loyalty and the fine service rendered the members of the Medical Society of the State of New York

Number of Members Insured in the Group Plan—The attached is a statement of the number of members insured in the Group Plan by counties and the percentage of those insured to the total membership (Table 1) These have been arranged in the order of the percentage insured.

REPORT OF THE COUNCIL

PART XII

MISCELLANEOUS

Medical Licensure

The Committee on Medical Licensure has the following membership

Nelson W Strohm, M D , *Chairman*	Buffalo
Morris Maslon, M D	Glens Falls
Ivan N Peterson, M D	Owego

The Committee herewith presents for the consideration of the Medical Society of the State of New York the following information

This Committee with the same personnel gave its previous report at the 1948 Annual Meeting of the Medical Society of the State of New York covering the period from January 1, 1946, to June 1, 1947 We compared the data on licensure in New York State with that of the other states and reviewed the figures for New York State in detail That report discussed the basic science law as it functions in those states where it is a law and presented the reasons why we believe it to be undesirable The previous report listed the requirements for licensure in New York State, which have not been changed to date However, certain proposed changes are listed herein The policy of the New York State Department of Education on endorsement of licenses was outlined, and in this report we wish to call attention further to some of the problems arising in the practice of so granting licenses

For comparative purposes, we have reviewed the licensure statistics as presented by the Council on Medical Education and Hospitals of the American Medical Association for the year 1947

The total number of licenses issued in the United States, including the District of Columbia, Alaska, Hawaii, Puerto Rico, and the Virgin Islands, was by examination 6,747, and on the basis of reciprocity and endorsement 7,682, making a total of 14,429 This decrease from 1946, in which year 16,231 licenses were issued, was due to a decrease in the number licensed without examination, which was a reversal of the previous trend This reversal of the previous year's trend nationally was not followed in New York State, where the increase continued, due to the number of licenses granted to foreign applicants

The greatest number of licenses granted during the calendar year of 1947 by any one state was again in California, where 1,868 were issued In New York, which was second in this respect, 1,645 licenses were granted

These figures represent physicians registering in more than one state in this year The total number receiving their first license and therefore representing additions to the medical profession in the United States and its territories is 6,855, of which 5,257 were by examination and 1,598 were by reciprocity and endorsement In New York State, there were 1,063 additions to the medical profession as compared to the 1,645 licenses issued. Of these 1,063 new members of the profession, which was the greatest addition in any one state, 447 were licensed by examination and 616 by endorsement

During 1947, the number of physicians removed by death in the United States and its possessions was 3,515, thus leaving an apparent physician population increase of 3,280 new licentiates The total additions to the profession in 1947 for the continental United States is 110 less than for 1946, which saw many medical officers returning to private practice Otherwise, the trend of increase over the past thirteen years persists The estimated number of physicians in the continental United States as of April 1, 1948, was 199,764 In New York State, the total number of physicians registered as of January 1, 1949, was 31,937

From a total of 7,124 examined in the United States during 1947, of the group of 5,645 graduates of approved medical schools in the country, 3 1 per cent failed, whereas 11 8 per cent of Canadian graduates, 17 9 per cent of graduates of extinct schools, 52 9 per cent of foreign graduates, 42 5 per cent of graduates of unapproved schools, and 18 3 per cent from schools of osteopathy failed It is of importance to note that, from 1930 through 1947, a total of 14,520 foreign medical school graduates have been examined in this country, and of that number and excluding the graduates of Canadian schools, 6,973 or 48 per cent failed

In New York State, of 1,092 examined, 39 from schools within the State or 3 6 per cent failed, while 80 from 36 schools outside the State or 7 3 per cent failed Also in New York State, of those from approved schools, 57 who had failed once in New York were licensed, and five who had failed once elsewhere were licensed after examination. Twenty-five who had had two or more failures were licensed Of graduates of foreign schools, 30 who had failed once in New York State were licensed, and 39 who had failed more than once were licensed Of graduates of unapproved schools and schools of osteopathy, 31 who had failed once in New York and four who had failed once elsewhere were licensed Eleven who had failed more than once in New York, one who had failed more than once elsewhere, and 24 who had failed more than once both in New York and elsewhere were licensed. This is a total of 240 licensed who had previously failed

Of physicians examined on the basis of credentials obtained elsewhere than in the United States and Canada, New York had a total of 387, of which 137 passed and 250 failed with a percentage failure of 64.6 No other state examined more than 40 In this regard the ruling continues in force that matriculates of a date later than January 1, 1940, are not accepted. This ruling was made because of the deterioration of European medical schools subsequent to that date At the present time the problem is much different. We are informed that an increasing number of applications are being received by New York State from the displaced persons group, with foreign credentials of a date prior to 1940 in 90 per cent of the cases Most of these applicants have not been in active practice for some years For reasons that are apparent, it would seem that such applicants for examination should be required to have had an additional defined amount of study in an approved school before admission to examinations Since the endorsement of foreign licenses rests with the Board of Regents, we believe that a definite position on this matter should be taken by the Medical Society of the State of New York and such position be represented to the Board of Regents of the State of New York

There has also been noted an increasing number of applications from English physicians who are anxious to separate themselves from the present system of medical practice in England

The power of endorsement of licenses of other states rests with the Committee on Endorsement, and its policies continue similarly to previous years There were a total of 1,035 licenses issued by endorsement in 1947 which is slightly less than the 1,081 endorsed in 1946 Seven hundred and two of the 1947 group so licensed without examination presented certificates of the National Board of Medical Examiners Five schools of New York State require their students to take the National Board's examinations The number licensed by such endorsement by New York far exceeded that in any other state, Massachusetts being next with 272, and California third with 244.

The marked increase in those obtaining licenses by reciprocity or endorsement throughout the United States continued in 1947 as in 1946, and is explained as previously by the number of physicians, returning from war, relocating in other states than where they originally practiced or were licensed. California was the only state exceeding New York in the number so licensed for 1947

New York licensed 132 osteopathic physicians by examination in 1947, as against 111 licensed in 1946

As previously pointed out, New York State does not require an internship for license Nationally, however, six medical schools in the United States and four in Canada require internship for graduation Twenty-three state medical licensing boards, plus the Connecticut Homeopathic Board and the boards of the District of Columbia, Alaska, Canal Zone, Hawaii, Puerto Rico, and the Virgin Islands, require internship for licensure

As we have indicated, there has been no change in the requirements for licensure in New York State to the date of writing this report However, there has been introduced into the legislature during the month of February, 1949, a bill which calls for an increase in fees for examination, endorsement, and biennial registration We are informed that this bill was drawn without conference with representatives of this Society

As a summary, and to bring this report up to the latest date for available statistics, we are in conclusion giving the tabulated reports of the New York State Board of Medical Examiners for the period from October, 1947, through October, 1948 (Tables 1 and 2)

TABLE 1.—REPORTS OF NEW YORK STATE BOARD OF MEDICAL EXAMINERS OCTOBER, 1947 TO OCTOBER, 1948

Schools	Passed	Failed
New York State schools	91	44
Other U S schools	133	125
Canadian schools	25	20
Foreign schools	215	502
Unapproved schools	113	77

TABLE 2.—REPORTS OF NEW YORK STATE BOARD OF MEDICAL EXAMINERS

School	October, 1947 Candidates		February 1948 Candidates		June 1948 Candidates		October, 1948 Candidates	
	Passed	Failed	Passed	Failed	Passed	Failed[9]	Passed	Failed
Albany	0	0	0	0	1	0	0	0
Buffalo	0	0	0	0	1	0	0	1
Columbia	4	0	3	0	3	0	1	0
Cornell	2	1	4	0	8	1	0	0
Long Island	4	5	2	3	6	3	5	3
New York Medical College	0	2	1	2	3	5	1	2
New York University	6	2	5	0	4	1	5	1
Rochester	1	0	2	3	6	0	0	0
Syracuse	1	0	3	2	6	5	4	2
TOTAL NEW YORK SCHOOLS	18	10	19	10	38	15	16	9
Chicago	11	7	10	5	4	3	19	3
Middlesex	41	23	18	17	7	12	3	7
Other U S Schools	31	36	33	35	43	30	26	24
Canadian	9	4	7	6	7	5	2	5
Foreign	38	114	73	139	64	137	40	112
TOTAL	148	194	160	212	163	202	106	160

SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK*

AT ITS meeting on February 10, 1949, the Council considered the following matters, taking action as indicated.

Secretary s Report

Remission of Assessments—Remission of annual assessments was voted on account of service with the armed forces for two members for 1948 and three members for 1947 On account of illness, annual assessments for 15 members were remitted for 1948 and 17 for 1949, also 24 War Memorial assessments were remitted on account of illness, and one was refunded

Dr Eugene L Opie, New York County, was nominated for Associate Fellowship in the American Medical Association

Communications—Dr John J Masterson, chairman of the nominating committee of United Medical Service, Inc , submitted for nomination as Physician Directors of the First Class to serve until the annual meeting of voting members in 1952 the names of John B D'Albora, M D , Chester O Davison, M D , Milton S Lloyd, M D , and William B Rawls, M D *Approval was voted*

Dr A M Mitchell, chairman of the National Conference of County Medical Society Officers of the American Medical Association, requested appointment of a chairman to assist in making arrangements and creating interest

It was voted to reappoint Dr Charles F McCarty as chairman for New York State

Request from Dr Cary Eggleston, president of the United States Pharmacopoeial Convention 1940–1950, to send from one to three representatives to a meeting regarding the U S Pharmacopoeia at Hotel Statler, Washington, May 9 and May 10

It was voted that the Board of Trustees be requested to appropriate a sum not to exceed $75 for expenses of one representative, to be appointed by the President

After discussion of a letter regarding expenses of Committee on Public Health and Education,

It was voted to pay Mrs O W H Mitchell monthly rent for the space in her residence, and to pay the committee's telephone expenses

In reply to a letter, the Council *voted* to appoint the following committee Dr John J Masterson, chairman, Dr Floyd S Winslow, Dr W P Anderton, Dr Nathan B Van Etten, and Dr A F R Andresen to report at the next meeting about future direction of the educational program of the Public Health and Education Committee

A January 26 telegram was announced from Mr Oscar Ewing regretting his inability to debate at Annual Meeting May 3

As a result of a letter,

It was voted that Mr W A Richardson, editor of *Medical Economics*, be invited to address the House of Delegates and also be on the Teaching Day Program

As a result of notice from the American Medical Association that our Society is entitled to three additional members of its House of Delegates, the Secretary announced he had notified Drs Clarence G Bandler, W Guernsey Frey, Jr , and B Wallace Hamilton that they had been elevated from alternates to delegates

The following presidential appointments were *approved* Dr Robert F Lapham and Dr A H Aaron, members of Prize Essays Committee, Dr Frederic W Holcomb, chairman of Committee on Legislation, Dr John C Brady, member of Committee on Legislation, Dr Ralph T B Todd, chairman of Subcommittee on Rehabilitation, of Committee on Public Health and Education

The President *was voted* power to appoint one additional member to this subcommittee

Approval was voted of appointment of the following to be regional chairmen in Internal Medicine for the Committee on Public Health and Education The President *was delegated* power to appoint chairmen for the fourth and sixth regions.

Region	Chairman
1	Scott Johnson, New York City
2	Alfred P Ingegno, Brooklyn
3	Scott Lord Smith, Poughkeepsie
4	(Not yet appointed)
5	L Whittington Gorham, Albany
6	(Not yet appointed)
7	John M Rice, Watertown
8	Charles D Post, Syracuse
9	Chester H Berlinghof, Binghamton
10	Benedict Duffy, Rochester
11	F S Hassett, Elmira
12	Roy L Scott, Buffalo

Treasurer's Report was accepted

Report of the Executive Officer

Dr Hannon reported that the Legislature has appointed two new Regents, one Mr Brosnan in place of Dr Brady and Mr Holzman in place of Regent Brandeis

Report of Committees

Legislation.—Dr Holcomb, chairman, reported that Dr Anderton, Dr Hannon, and himself had attended a Wicks Commission hearing He emphasized that unless a united definite action on the part of county societies and their memberships is achieved in relation to the anticult injunction bill, it will not get far He announced a meeting of the County Societies Legislative Committee Chairmen on February 17 in Albany Dr Holcomb requested consideration of a resolution for the Legislature against compulsory health insurance

Convention—Dr Wertz, chairman, read a letter from Dr Ingegno, chairman of Scientific Program Subcommittee, suggesting that expenses be paid for New York State essayists who are full-time teachers or researchers

It was voted that the present policy be continued, not to pay expenses of New York essayists at State Society Scientific Section and Session meetings

Economics.—Mr Farrell reported an interview with the executive secretary of the New York State Public High School Athletic Protection Plan, Inc It was authoritatively stated that this organization had not been officially approved by the State Society

The Council approved Mr Farrell's reappointment to the Statistical Committee of the American Medical Care Plans

The Council *voted* that a copy of the letter from the president of the Medical Society of the State

of Pennsylvania and the Ten-Point Program be furnished members of the Council before its next meeting

Ethics.—On December 9, 1948, the Council referred to the Committee on Questions on Ethics a letter from Dr William A. Petry, president of the Medical Society of the County of Greene, inquiring whether or not the State Society approved of a member using "F A C S," "F I C S," "Diplomate of Am. Bd of Int Med.," on stationery, business cards, prescription blanks, etc

The committee recommended that the use of such titles or other specialty designation be approved as long as such titles were in good taste The committee recommended that the interpretation of the expression "good taste" be within the power of each component county medical society for its own membership

This recommendation *was approved*

Dr J H. Arseneau, president of the Wayne County Medical Society inquired for six doctors (1) Is it ethical that they should advertise in the local papers that they are moving their offices to the newly erected clinic building either in one ad for all six or individually?, and, (2) Is it ethical that they should have invitations distributed either by mail or through the local papers for their patients to come for an institutional open house or preopening inspection?

It was voted that the Secretary be instructed to state that the Council believes it is unethical so to proceed according to the ethics of the American Medical Association

Malpractice Insurance and Defense Board.—Dr Charles Gordon Heyd explained about replacing the Yorkshire Indemnity Company, as carrier of the malpractice defense insurance, with the Employers Mutual Liability Insurance Company of Wausau, Wisconsin. The Board recommended that the Council adopt a resolution substantially as follows

"WHEREAS, The Yorkshire Indemnity Company has carried the malpractice insurance of the members of the Medical Society of the State of New York under an agreement entered into with the Society in 1936 and has now asked to be relieved of that agreement effective June 30, 1949, and

"WHEREAS, during the thirteen years the Company has carried our malpractice insurance, they have scrupulously lived up to the spirit as well as the letter of their agreement, striving at all times to furnish the maximum protection to members of the Society, and

"WHEREAS, in the face of constantly mounting deficits, they have continued to carry our business long past the time when, in ordinary circumstances, they might properly have sought to be relieved of it, now therefore

"*Be it resolved*, that the Medical Society of the State of New York express to Mr Alan O Robinson and his assistant, Mr Horace Crowell, its thanks and appreciation of their loyalty and the fine service rendered the members of this Society by their Company"

It was voted that the above resolution be adopted

The Council *voted* to thank Dr Heyd and the Malpractice Insurance and Defense Board for the excellent work they have done, and that the Council approve of the recommendations of the Malpractice Insurance and Defense Board, and to accept the Employers Mutual Liability Insurance Company of Wausau, Wisconsin, as the carrier, and the increase in rates starting July 1, 1949, at 12 01 A.M

Dr Anderton stated that the report of the Malpractice Insurance and Defense Board contains the following statement,

"The Board recommends that the Board of Trustees appropriate the necessary funds to send the legal counsel and the indemnity representative to San Francisco at an early date to complete the study ordered by the House of Delegates" (referring to the study of the Alameda County Medical Association Plan)

After discussion,

It was voted that the Board of Trustees be requested to appropriate a sum not to exceed $1,500 for the expenses of the legal counsel and indemnity representative going to California for such study

Another recommendation in Dr Schiff's report stated that "Authority is requested for the Board to undertake, experimentally, a part of the Alameda County program The Board desires to enlist the cooperation of a medium size county society in appointing a special committee or delegating to one of its standing committees authority to call before it each member of the county society who is sued, to hear him and examine hospital or other available records, to determine, if possible, whether the defendant has been guilty of malpractice, error, or mistake, to assist in developing a sound theory of defense, and to assist, if required, in securing the best defense witnesses available—none of which would entail expense to the State Society nor abridge the rights or protection of the members concerned It is understood that a member may refuse to appear before the committee but it is believed that when the helpful purpose of the undertaking becomes known, medical opinion in the county would approve and support it

It was voted to accept this recommendation

Medical Service.—Dr Wertz reported in detail what had transpired when he attended a meeting in Chicago of the National Conference on Medical Service

Planning Committee for Medical Policies.—Dr Kenney, chairman, made a progress report

Publication.—Dr Kosmak, chairman, reported about the increasing cost of our publications, the deficit in cost of the *Directory*, and recommended discontinuing publication of the full minutes of the Council in the JOURNAL

It was decided to publish in the JOURNAL the subjects discussed by the Council, with a footnote that any member may obtain more complete information from his county society secretary, and to distribute mimeographed Council minutes to each county society secretary

It was voted to accept the Publication Committee report with appreciation of the effort that the editor and the secretary are making to adapt this program to the space available in the JOURNAL

Public Health and Education.—A letter from Dr Charles D Post explained the activities of the Committee

Public Relations.—Dr Winslow, chairman, reported the activities and immediate objectives of this committee

Liaison with the Veterans Administration.—Dr Bauckus, chairman, reported that the Committee had met with representatives of seven veterans organizations on February 9, 1949 There was a discussion of the features in our plan. The representatives felt that each veteran should have a free

choice of physician and hospital Dr Bauckus also reported that he had been notified by the local branch office of Veterans Administration that they would like a meeting soon about the renewal of our contract which expires March 31, 1949

Workmen's Compensation —Dr Kenney, chairman, reported that he had received inquiries concerning the right of podiatrists to use x-rays in the diagnosis and treatment of foot conditions, he reported on the practice of medicine by hospitals, new fee schedule, civil service physicians, mileage fees, fees for subsequent compensation complaints, complaints against insurance carriers representatives, radiology examinations, and arbitrations

New Business

A.M A. Assessment.—The Council *voted* to endorse the $25 assessment levied by the House of Delegates and the Board of Trustees of the American Medical Association

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* Official copy of the minutes has been sent to the secretary of each component county medical society

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Fellowship in the American Medical Association

The attention of members of the State Society is called to the following extracts from the Constitution and Bylaws of the American Medical Association regarding Fellowship, the advantage of which must be evident The payment of dues includes an annual subscription to the *Journal of the A M.A* , an important and informative publication which should be in the hands of every physician It is likewise to be noted that no part of the dues paid to the constituent county societies are apportioned to the American Medical Association

Bylaws (1948)—Chapter IV

Section 2 Qualifications, Election, Rights and Duties —(A) Member and Service Fellows —(1) Member Fellows Active members of the Association who have made proper application to the Secretary and who are approved for Fellowship by the Judicial Council shall be Member Fellows An applicant for Fellowship must possess the degree of Doctor of Medicine or Bachelor of Medicine granted by a school or college of medicine accredited by the American Medical Association

The Judicial Council in its discretion may approve for Fellowship any active member (1) who holds a degree equal in requirement to that of Doctor of Medicine but who has not graduated at a school accredited by the American Medical Association or (2) who formerly was a Member Fellow, provided he does not base his practice on an exclusive dogma or sectarian system.

A Member Fellow shall retain his Fellowship as long as he is an active member of the Association and complies with the provisions of the constitution and bylaws and the Principles of Medical Ethics of the Association

A Member Fellow shall pay annual dues not to exceed twelve dollars as may be determined by the Board of Trustees and announced in the *Journal of the American Medical Association* or any special scientific journal published by the Association Dues shall be payable in advance on January 1 of each year Any Member Fellow who is delinquent in the payment of his dues for one year shall forfeit his Fellowship if he fails to pay the delinquent dues within thirty days after notice of his delinquency has been mailed by the Secretary to his last known address

NECROLOGY

Herbert Louis Gaus, M D, died on March 6 at the age of sixty-five Brigadier General Gaus a retired physician residing in Stonehenge received his medical degree from Albany Medical College in 1907 He had been a member of the National Guard since 1907 and during the first World War served with the 7th Division in France He was formerly associated with St Peter's Hospital, Albany, Bender Laboratory, Steuben County Laboratory, and the Massachusetts Eye and Ear Infirmary and had practiced as a physician both in Albany and Ticonderoga. General Gaus served as medical adviser to the adjutant general for selective service in New York State At the time of his death he was a consultant oculist on the staff of the Moses Ludington Hospital in Ticonderoga.

William Vincent Healey, M.D, fifty-seven, director of surgery at St Clare's Hospital since its establishment in 1934, died at the Hospital on March 9 after suffering a heart attack a week earlier Dr Healey, a graduate of the Cornell University College of Medicine in 1916, was credited with having developed the intern and residency training program and with establishing the scientific laboratories at St. Clare's. He served overseas with the Army Medical Corps and was discharged with the rank of captain. After the Armistice Dr Healey served with various reconstruction hospitals and then later was on the staffs of Polyclinic Gouverneur and the old Broad Street Hospitals, New York. He was a fellow of the American College of Surgeons and the American Academy of Compensation Medicine, honorary surgeon of the New York Police Department, and a member of the New York State and County Medical Societies and the American Medical Association He was also a surgeon at Kings Park Hospital, Long Island

Jeanette Potter Himmelsbach, M.D, Buffalo, died on March 12 Eighty-one-year-old Dr Himmelsbach was one of six women graduated from the University of Buffalo, School of Medicine in 1890 She practiced in Ithaca until her marriage in 1893 to Dr George A. Himmelsbach

Edward L Keyes, M D, one of the leading urologists in the United States who retired in 1939 after forty years of practice died of a heart attack at his New York residence on March 15 Dr Keyes was seventy-five years old He received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1895 He had held the following teaching posts lecturer in urology at Georgetown Medical School from 1902 to 1906, associate professor of urology at Polyclinic Medical School from 1903 to 1908, lecturer on surgery at Cornell University Medical School from 1904 to 1910, and professor of urology at the latter school from 1910 to 1937 He had been urologist on the staff of New York Hospital and at the time of his death served as consultant urologist on the staff of that Hospital and as consultant surgeon to Bellevue Hospital. He was also attending surgeon on the staff of St Vincent's Hospital from 1905 to 1920 and from 1920 to 1932 urologist

Dr Keyes was the first specialist sent overseas in the first World War to guard American soldiers from venereal disease He was a major in the Medical Corps attached to Base Hospital No 1 and later attained the rank of colonel with the title of consultant in urology to the A.E F

He was the author of many textbooks in urology, and in January, 1938, he received the first award of the William Freeman Snow Medal for distinguished service in the field of social hygiene He was an honorary fellow of Royal College of Surgeons and an officer of the Legion of Honor A former president of the American Society of Social Hygiene, the American Association of Genito-Urinary Surgeons, the Clinical Urological Association, and the International Urological Association, and a former vice-president of the New York Academy of Medicine, Dr Keyes was a diplomate of the American Board of Urology and a fellow of the American College of Surgeons His membership in medical organizations included also the American Urological Association, the American Medical Association, and the New York State and County Medical Societies

Jerome Henry Leadley, M.D, of Rochester, died on February 24 at the age of forty-four Dr Leadley received his medical degree from the University of Rochester, School of Medicine and Dentistry, in 1930 His hospital affiliations included the positions of assistant physician in the department of obstetrics and gynecology at Strong Memorial Hospital and associate obstetrician at Rochester General Hospital. He was a member of the Rochester Academy of Medicine, the New York State and Monroe County Medical Societies, and the American Medical Association

Harry Sidney Newman, M D, aged fifty, died on March 13 of a heart attack. A resident of Yonkers Dr Newman was a graduate of the University of Virginia Medical School in the year 1925 He interned at Montefiore Hospital, Bronx, later joining the staff As well as being a member of the Yonkers General Hospital staff, he was associate attending physician in the division of pulmonary disease at Montefiore Hospital. A fellow of the College of Chest Physicians and the New York Academy of Medicine, Dr Newman was president of the Montefiore Hospital Alumni Association and a member of the New York State and Westchester County Medical Societies, the American Medical Association, and the American Trudeau Society

Henry Woodruff Titus, M.D, recently retired pediatrician and obstetrician of New Rochelle, died at the age of seventy-three on March 17 Dr Titus was graduated from the College of Physicians and Surgeons, Columbia University, in 1902 and served as an intern and resident at St Luke's Hospital until 1904. After brief service at New York, Sloane Maternity, and New York Foundling Hospitals, he made a round-the-world cruise as physician on a private yacht He began practicing in New Rochelle in 1908, becoming an associate physician at New Rochelle Hospital shortly thereafter, and subsequently president of the medical board of the Hospital. He also served as chief of the Hospital's obstetric staff and later as director of pediatric service He served as a major in the Army Medical Corps during World War I in France

Dr Titus was for many years head of the pediatric service at Grasslands Hospital Valhalla and at his death was consulting pediatrician to New Rochelle Hospital the United Hospital, Port Chester, and Lawrence Hospital, Bronxville A licentiate of the American Board of Pediatrics and a fellow of the American Academy of Pediatrics and the New York

[Continued on page 974]

HOSPITAL NEWS

Sydenham Becomes City Hospital

HARLEM's Sydenham Hospital, virtually the only voluntary hospital in New York City to admit private patients of Negro physicians, has been taken over by the City In desperate financial straits, the Hospital requested the City Department of Hospitals to take it over, which the Board of Estimate voted to do on a sixty-day lease pending necessary legal and financial adjustments

Dr Marcus D Kogel, City Commissioner of Hospitals, announced that Sydenham Hospital would continue to provide facilities for semiprivate and private beds, and that the City promised to retain the best features of the interracial private hospital Dr Israel O Weissman, director of Sydenham, has been asked to remain at his post and to keep intact his present operating staff

Although the records of New York City do not show a precedent for operating a public hospital with accommodations for private physicians beyond the assignment of single rooms or space for the care of persons with chronic ailments, there are many precedents in other cities, Dr Kogel stated

A formal meeting to work out plans will be held shortly, it was announced

NEWS NOTES

Dr David E Block, Madalin, has been named chairman of the medical staff at the Northern Dutchess Health Center, Rhinebeck Other officers include Dr William G Thompson, Rhinebeck, vice-chairman, and Dr Frederick S Zipser, Red Hook, secretary

Beth Israel Hospital, New York City, has purchased land and buildings adjoining its present site, and will erect a fourteen-story building to house a laboratory, outpatient clinic, and nurses' home, it has been announced Ground is to be broken in two months

Cancer detection clinics have been opened recently in Albany, one at the Albany Hospital and the other at the Memorial Hospital Dr John K Meneely, Jr , is director of the center at the Albany Hospital

Specialists from the University of Buffalo Medical School met recently with the staff of the Wyoming County Community Hospital for a discussion on "Acute Conditions of the Abdomen " Guest speakers were Dr Paul Kennedy, Meyer Memorial Hospital, and Dr Murray Howland, Buffalo General Hospital

Dr Hans Selye, professor and director of the Institute of Experimental Medicine and Surgery of the University of Montreal, gave the Isidore Friesner Lecture at Mount Sinai Hospital, New York City, on March 1 His topic was "Hypertension as a Disease of Adaptation "

At the monthly clinical conference at Mount Sinai Hospital, New York City, March 21, the following presented papers "Pertussis Vaccine Encephalopathy," Dr Bennet Gemson, "Traumatic Hemopericardium—Management," Dr Louis B Turner, "Nutritional Requirements in Surgical Convalescence," Dr John J Bookman, "Systemic Disease Controlled by Paranasal Sinus Therapy," Dr Joseph L Goldman and Dr Leon M Arnold, and "Pheochromocytoma—Newer Methods of Diagnosis," Dr Raymond S Megibow

According to its annual report, Meadowbrook Hospital, Mineola, had its busiest year ever in 1948, admitting 6,811 patients, an increase of 14 per cent over 1947, the previous record year More than 777,000 patients have entered the hospital since it was opened in 1935 Dr Alexander J McRae is superintendent

As a memorial to Dr Frederic H Bartlett, pediatrician and attending physician at Babies Hospital of the Columbia-Presbyterian Medical Center, who died last year, a committee has been formed to raise a fund to endow one or more hospital beds for underprivileged children, at the hospital The committee is composed of "Bartlett Babies" and of other Bartlett admirers Donations may be mailed to the Frederic H Bartlett Memorial Committee, Presbyterian Hospital, New York City

Dr Bartlett was the author of a popular book, *Infants and Children—Their Feeding and Growth*

The staff of the Binghamton City Hospital has adopted the following resolution following the death of Dr Joseph F Roe, a member of the staff

"WHEREAS, in fraternal affairs Dr Roe attained to the highest offices of the Masonic Order where his sage counsel was widely sought, and

"WHEREAS, the Medical Society of the State of New York honored him at their annual meeting in Buffalo in May, 1947, for his attainment of fifty years of active practice, and

WHEREAS, the memory will long be cherished of a gentleman and physician devoted to the alleviation of illness and to the finer humanities,

"Be it therefore resolved that the staff of the Binghamton City Hospital mourns the loss of a distinguished member, the City of Binghamton an outstanding citizen, and

"Be it further resolved that a copy of these resolutions be spread on the minutes of the staff of the Binghamton City Hospital and further copies be sent to the Medical Society of the State of New York and to the family of Dr Joseph F Roe "

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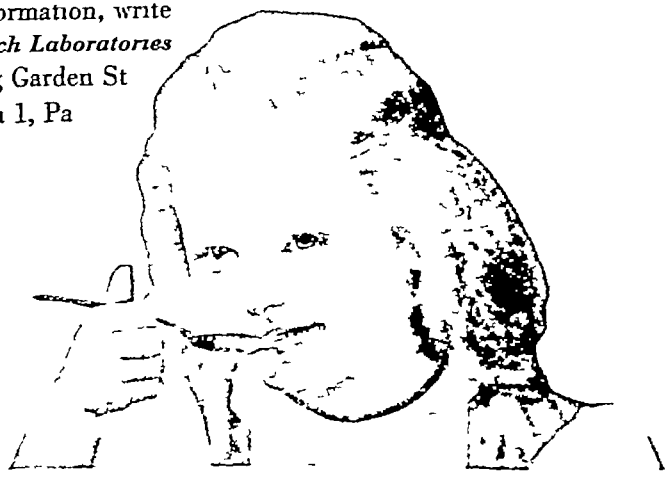
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MEDICAL NEWS

State Death Rate at New Low in 1948

A NEW low death rate of 10 8 per 1,000 of population in New York was established in 1948, the State Health Department announced recently The 1947 death rate was 11 1

Births in 1948 numbered 302,051, compared with 325,092 in 1947, when an all-time record was set The 1948 birth rate of 20 7 per 1,000 of population was the highest in a quarter of a century with the exception of the 1947 rate of 22 8

New low death rates were established last year for a number of diseases Among these was a rate for tuberculosis of 35 5 per 100,000 population, a decline of 1 3 from 1947 There were 5,179 deaths from tuberculosis last year This represented a drop of 1,200 in the number of deaths since 1943 and a decline of 24 per cent in the rate in the five years

The death rate for influenza was 0 8 per 100,000, half of the previous low rate set in 1947 The rate for pneumonia dropped from 39 6 in 1947 to 35 2 Among other record low rates set in 1948 were those from acute rheumatic fever, 0 6, a drop of 0 2, appendicitis, 3, a drop of 0 4, and acute and chronic nephritis, 39 7, a drop from 42 5

Although no record was established, deaths from heart diseases in 1948 represented a rate of 422 5 per 100,000 persons, compared with 425 9 in 1947 Heart ailments, the most important cause of death, took 61,500 lives in the State last year

The chief adverse factor, the Health Department reported, was the continuous increase in deaths from cirrhosis of the liver These deaths numbered 2,454 in 1948, setting a death rate of 16 8 per 100,000 persons, the highest since 1912

Deaths from cancer, which takes the second largest toll, also increased, totaling 25,700 The rate was 176 3, an increase of 1 2 over 1947 Deaths from diabetes rose from a rate of 41 9 two years ago to 42 7 last year Cerebral hemorrhage and apoplexy, the third most important cause of death, took 10,733 lives compared with 10,499 in 1947 Whooping cough caused 30 deaths, 12 fewer than in 1947, while streptoccocal sore throat, including scarlet fever, took 23 lives compared with 36 in 1947 These represented new low death rates Diphtheria caused 11 deaths, two more than the all-time low of nine set in 1944

Announce Research Grants Totaling $2,040,900

RESEARCH grants totaling $2,040,900 to finance medical and allied research projects at non-Federal institutions in 30 states, Alaska, Puerto Rico, and the District of Columbia were announced recently by Oscar R Ewing, Federal Security Administrator The grants were awarded following recommendation by the National Advisory Health Council and approval by Surgeon General Leonard A Scheele of the U S Public Health Service

The grants program is administered by the National Institutes of Health through its Division of Research Grants and Fellowships

A list of the approved grants to physicians in New York State follows

Dr Crawford J Campbell, Albany Medical College, for study of bone grafts, preserved and fresh, autoplastic and homoplastic, $1,300

Dr Charles L Fox, Jr , College of Physicians and Surgeons, Columbia University, electrolyte changes in infectious diseases, $5,076

Dr Elvin A Kabat, College of Physicians and Surgeons, Columbia University, purification, standardization, and characterization of blood group substances (A, B, and O), $11,934

Dr Hattie E Alexander, College of Physicians and Surgeons, Columbia University, evaluation of therapeutic efficacy of streptomycin and other adjuncts in tuberculosis in infants and children, $6,933

Dr David Nachmansohn, Columbia University, chemical mechanism of nervous action, $14,000

Dr Erwin Chargaff, Columbia University, chemical and biologic properties of nucleic acids and nucleoproteins, $11,000

Dr Robert C Elderfield, Columbia University, study of the in vitro degradation of antimalarials, $30,186

Dr Charles Glen King, Columbia University, biochemical study of vitamin C, $12,485

Dr Leonard J Goldwater, Columbia University School of Public Health of the Faculty of Medicine, study of the nutritional and biochemical effects of the aromatic hydrocarbons, halogenated hydrocarbons, and nitrobenzene derivatives, $5,000

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Dr Elmer H Stotz, University of Rochester, School of Medicine and Dentistry, mechanism of biologic fat synthesis and oxidation, $8,640

[Continued on page 962]

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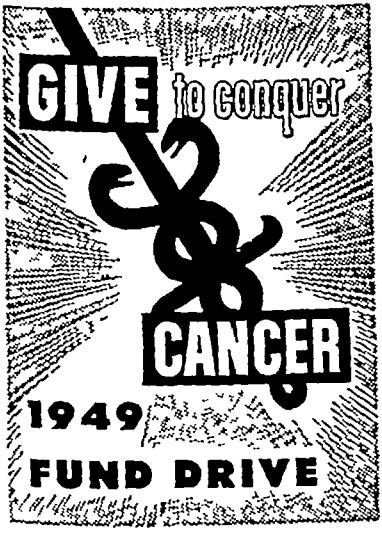
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MEDICAL NEWS

State Death Rate at New Low in 1948

A NEW low death rate of 10 8 per 1,000 of population in New York was established in 1948, the State Health Department announced recently The 1947 death rate was 11 1

Births in 1948 numbered 302,051, compared with 325,092 in 1947, when an all-time record was set The 1948 birth rate of 20 7 per 1,000 of population was the highest in a quarter of a century with the exception of the 1947 rate of 22 8

New low death rates were established last year for a number of diseases Among these was a rate for tuberculosis of 35 5 per 100,000 population, a decline of 1 3 from 1947 There were 5,179 deaths from tuberculosis last year This represented a drop of 1,200 in the number of deaths since 1943 and a decline of 24 per cent in the rate in the five years

The death rate for influenza was 0 8 per 100,000, half of the previous low rate set in 1947 The rate for pneumonia dropped from 39 6 in 1947 to 35 2 Among other record low rates set in 1948 were those from acute rheumatic fever, 0 6, a drop of 0 2, appendicitis, 3, a drop of 0 4, and acute and chronic nephritis, 39 7, a drop from 42 5

Although no record was established, deaths from heart diseases in 1948 represented a rate of 422 5 per 100,000 persons, compared with 425 9 in 1947 Heart ailments, the most important cause of death, took 61,500 lives in the State last year

The chief adverse factor, the Health Department reported, was the continuous increase in deaths from cirrhosis of the liver These deaths numbered 2,454 in 1948, setting a death rate of 16 8 per 100,000 persons, the highest since 1912

Deaths from cancer, which takes the second largest toll, also increased, totaling 25,700 The rate was 176 3, an increase of 1 2 over 1947 Deaths from diabetes rose from a rate of 41 9 two years ago to 42 7 last year Cerebral hemorrhage and apoplexy, the third most important cause of death, took 10,733 lives compared with 10,499 in 1947 Whooping cough caused 30 deaths, 12 fewer than in 1947, while streptococcal sore throat, including scarlet fever, took 23 lives compared with 36 in 1947 These represented new low death rates Diphtheria caused 11 deaths, two more than the all-time low of nine set in 1944

Announce Research Grants Totaling $2,040,900

RESEARCH grants totaling $2,040,900 to finance medical and allied research projects at non-Federal institutions in 30 states, Alaska, Puerto Rico, and the District of Columbia were announced recently by Oscar R Ewing, Federal Security Administrator The grants were awarded following recommendation by the National Advisory Health Council and approval by Surgeon General Leonard A Scheele of the U S Public Health Service

The grants program is administered by the National Institutes of Health through its Division of Research Grants and Fellowships

A list of the approved grants to physicians in New York State follows

Dr Crawford J Campbell, Albany Medical College, for study of bone grafts, preserved and fresh, autoplastic and homoplastic, $1,300

Dr Charles L Fox, Jr , College of Physicians and Surgeons, Columbia University, electrolyte changes in infectious diseases, $5,076

Dr Elvin A Kabat, College of Physicians and Surgeons, Columbia University, purification, standardization, and characterization of blood group substances (A, B, and O), $11,934

Dr Hattie E Alexander, College of Physicians and Surgeons, Columbia University, evaluation of therapeutic efficacy of streptomycin and other adjuncts in tuberculosis in infants and children, $6,933

Dr David Nachmansohn, Columbia University, chemical mechanism of nervous action, $14,000

Dr Erwin Chargaff, Columbia University, chemical and biologic properties of nucleic acids and nucleoproteins, $11,000

Dr Robert C Elderfield, Columbia University, study of the in vitro degradation of antimalarials, $30,186

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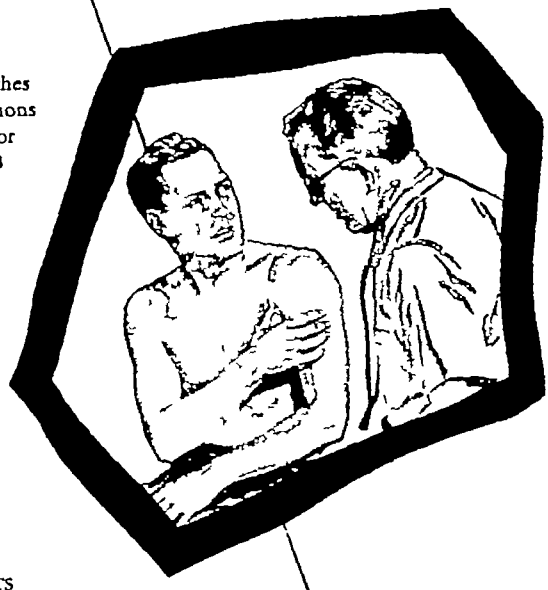
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[Continued on page 962]

Puzzling Symptoms?



Neuritis, lack of appetite, migrating aches lassitude and chronic fatigue, skin eruptions —all these symptoms may indicate partial or minor deficiency in the vitamins of the B group Advanced deficiency may produce the less common pellagra or beri beri.

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Each tablet contains

Secondary Liver Fraction	0 6 gram
Thiamine Hydrochloride	10 0 milligrams
Riboflavin	20 0 milligrams
Pyridoxine HCl (Vitamin B_6)	0 5 milligrams
Calcium Pantothenate	5 0 milligrams
Niacinamide	150 0 milligrams

Suggested dose One tablet per day or as directed by physician. Available in boxes of 100 tablets.

ARMOUR B COMPLEX HIGH POTENCY CAPSULETTES

Each capsulette contains at least

Secondary Liver Fraction	0 4 gram
Thiamine Hydrochloride	2.0 milligrams
Riboflavin	4.0 milligrams
Pyridoxine HCl (Vitamin B_6)	0 25 milligrams
Calcium Pantothenate	2.5 milligrams
Niacinamide	20.0 milligrams

Suggested dose One to two capsulettes three times a day at mealtime or as directed by physician. Available in boxes of 100 capsulettes.

ARMOUR B COMPLEX CONCENTRATE (LIQUID)

Each fluid drachm (one teaspoonful) contains at least

Vitamin B_1 (Thiamine Hydrochloride)	0 450 milligram
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Nicotinic Acid	1 250 milligrams
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(Derived from 8 grams fresh liver and 0 2 grams fresh yeast.)
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[Continued from page 960]

Free Radioisotopes for Cancer Research Now Available

THE United States Atomic Energy Commission has announced that it will make available to qualified cancer research workers in the United States, without charge, all radioisotopes now being sold Dr Shields Warren, director of the Commission's Division of Biology and Medicine, said the action will result in a significant enlargement of the Commission's four-point cancer program This program, announced in March, 1948, has as its basic objective the development of the use of radioactive substances in studies of the nature of cancer, its diagnosis, and treatment

The free isotopes will be allocated for the following purposes (1) cancer investigations involving animal subjects, (2) research programs studying basic cellular metabolism of cancerous cells, and (3) experimental programs designed to evaluate the therapeutic use of radioactive materials

Under the program, three radioisotopes—those of the elements iodine, phosphorus, and sodium—were previously available free of production costs for use in cancer research The new policy will make available on a free basis the radioisotopes of more than 50 additional elements Notable among these is the radioisotope of the element cobalt, known as Cobalt-60, which promises to become an effective substitute for radium Two other important cancer research materials that will now be available without charge are the radioisotopes of the elements gold and carbon

For further information address the United States Atomic Energy Commission, Washington 25, D C

Institute of Industrial Medicine to Inaugurate Course

BEGINNING March 3, the Institute of Industrial Medicine of the New York University-Bellevue Medical Center, inaugurated a course in "Medicine in Industry" for third-year students at the New York University College of Medicine, Dr A. J Lanza, chairman of the Institute, has announced

Extending over a period of twelve weeks, the course will include lectures in dust diseases, lead, solvents, dermatoses, psychiatry in industry, applied physiology of respiration as applied to dust diseases, organization and administration of industrial medical departments, physical factors in industry, research, and physical examinations

In addition to Dr Lanza, lecturers will include Dr David H Goldstein, assistant professor of preventive medicine, and medical director of the New York Times Company, Dr Norton Nelson, director of the laboratory of industrial toxicology, and associate professor of preventive medicine (industrial medicine), Dr E D Palmes, assistant professor of preventive medicine (industrial medicine), Dr William Leifer, associate clinical professor of dermatology, all of the New York University-Bellevue Medical Center, and Dr Lydia Giberson, psychiatrist on the staff of the Metropolitan Life Insurance Company

Medical Board Established at NYU-Bellevue Medical Center

A MEDICAL board of 31 doctors was recently established at the New York University-Bellevue Medical Center The function of the board is to concern itself with all clinical facilities of the hospital, including the University hospital and clinics, and affiliated hospitals where teaching is done The membership of the board is composed of members of the faculties of the recently merged New York University College of Medicine and New York Post-Graduate Medical School

The following five administrative members were elected to the board ex officio Edwin A Salmon, director of the Medical Center, Dr Edward M Bernecker, administrator of Hospital Services, Dr Donal Sheehan, chairman of the Scientific Committee, Dr Currier McEwen, dean of the College of Medicine, and Dr Robert Boggs, acting dean of the Post-Graduate Medical School

Officers elected at the board's first meeting were Dr John H Mulholland, chairman, Dr J William Hinton, vice-chairman, and Dr Clarence E de la Chapelle, secretary

MEDICALLY SPEAKING—

Polio Grants to Columbia and NYU—Columbia University will receive $11,240 for the investigation of so-called muscle spasm in poliomyelitis, it was announced recently in a joint statement made by Mr Basil O'Connor, president of the National Foundation for Infantile Paralysis, and Dr Willard C Rappelye, dean of Columbia University's Faculty of Medicine In addition, New York University College of Medicine will receive a total of $23,215 to carry on work in the control of polio In a statement by Dr Harry Woodburn Chase, chancellor of the University, and by Mr O'Connor, it was announced that the National Foundation for Infantile Paralysis will grant $10,215 for a course in virus diseases and $13,000 for research in the transmission and diagnosis of polio to the New York University College of Medicine

City Hospital Announces Refresher Course in Medicine—City Hospital announces that the Spring Session of the Refresher Course in Medicine will be given from May 2 through June 3, 1949

The course is a comprehensive review in internal medicine and the related specialties designed to meet the needs of the general practitioner The subjects include diagnosis, cardiology, allergy, pulmonary disease, fundoscopy, gastroenterology, hematology, and peripheral vascular disease

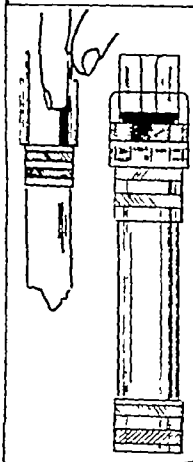
Classes will be held at the Welfare Island Dispensary on Monday, Wednesday, and Friday mornings and Tuesday and Thursday afternoons Students may register for the entire course or for special subjects. There is no fee

Requests for applications should be sent to Dr

[Continued on page 964]

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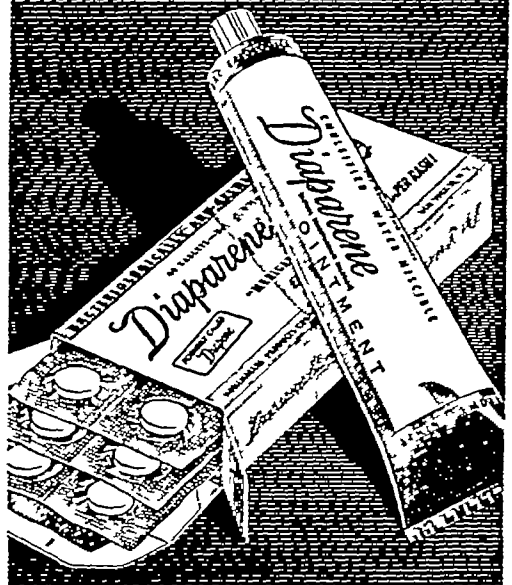
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[Continued from page 962]

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David Anderson-Berry Prize—A David Anderson-Berry silver-gilt medal, together with a sum of money amounting to about £100, will be awarded in 1950 by the Royal Society of Edinburgh to the person, who, in the opinion of the Council, has recently produced the best work on the therapeutic effect of x-rays on human diseases

Applications for this prize are invited They may be based on both published and unpublished work and should be accompanied by copies of relevant papers Applications must be in the hands of the General Secretary, Royal Society of Edinburgh, 22 George Street, Edinburgh, 2, by March 31, 1950

Utah Fourth State to Petition Congress—The United States Senate and House of Representatives received, on February 22, a resolution from the Utah State Senate Congress was memorialized not to enact legislation providing for socialized medicine or national compulsory health insurance, and the State Senate urge that legislation be restricted to measures which will encourage private health insurance in cooperation with the private practice of medicine

Sterling-Winthrop Institute's New Laboratory Nearing Completion—Sterling-Winthrop Research Institute will start moving into its new $3,000,000 laboratory building in June of this year, Dr Maurice L Tainter, vice-president and director, has announced Moving operations will take place over a period of three months, and formal opening will be held later in the year, he said.

Medical Scholars Receive Markle Grants—The John and Mary R Markle Foundation has named thirteen medical scholars as the second group of "Scholars of Medical Science" to pursue special studies. A sum of $325,000 will be allotted at the rate of $5,000 per year for a period of five years to the medical schools where the beneficiaries now hold appointments

Among those receiving grants was Dr W Clark Wescoe, Cornell University Medical College, for research in pharmacology

Blood Banks—At a meeting held in Washington February 13, between committees of the American Medical Association and the American Red Cross to study the subject of blood bank centers, a plan was developed to survey the situation throughout the country At present, the total blood bank reserves are unknown, and it is important to be informed of what further expansion is necessary and how mobilization of resources can be achieved rapidly in case of emergency It was disclosed at the conference that there would be 34 Red Cross Blood Centers in operation by July 1, 1949

Foundation Prize—The South Atlantic Association of Obstetricians and Gynecologists announces the establishment of "The Foundation Prize." Authors of papers on obstetric or gynecologic subjects desiring to compete for the prize may obtain information from Dr E D Colvin, Secretary-Treasurer, 1259 Clifton Road, N E, Atlanta, Georgia.

American College of Chest Physicians—The Board of Examiners of the American College of Chest Physicians announces that the next oral and written examinations for fellowship will be held in Atlantic City, June 2, 1949 Candidates for fellowship in the College, who would like to take the examinations, should contact the Executive Secretary, American College of Chest Physicians, 500 North Dearborn Street, Chicago 10, Illinois.

Illinois Physicians Pay Assessment—The 10,000 physicians belonging to the Illinois State Medical Society are willingly and rapidly paying the $25 assessment asked of them to block socialized medicine, it was reported last month by Dr Harold M Camp, secretary of the Society Already six of the 90 county medical societies have paid in full. These societies, among the smaller component groups of the Illinois society, with memberships ranging from half a dozen to 50, illustrate the spirit with which the great majority of the physicians of Illinois have received the assessment Instead of objecting to it, they are willing to contribute even more, if necessary, to protect the freedom of American medicine for the sake of the health and welfare of the American people As to the larger societies, Dr Camp stated that they are not expected to attain 100 per cent compliance The larger the group, the greater the chance that a few dissidents will be found—men who, for reasons best known to themselves or perhaps their favorite psychiatrists, favor socialization of medicine A very few others disagree with the tactics of the A M A., although they are solidly against socialization However, the gleeful predictions made by some proponents of government medicine that a large number of physicians will refuse to pay are definitely wrong as regards Illinois

Calling Dr Rembrandt—If you plan to exhibit at the Atlantic City Exhibition (A M A., June 6 to 10, 1949), now is the time to write for entry blanks, rules, shipping labels, etc Haste is necessary because your entries must reach Atlantic City between April 15 and May 9 For details please write airmail to Francis H Redewill, M D, Secretary, American Physicians Art Association, Flood Building, San Francisco California.

MEETINGS

PAST

Association for the Advancement of Psychotherapy

The February 25 meeting of the Association for the Advancement of Psychotherapy was held jointly with the New York Society for Speech and Voice Therapy, Inc Dr Joseph Wilder delivered a lecture on "Extracortical Speech Disturbances"

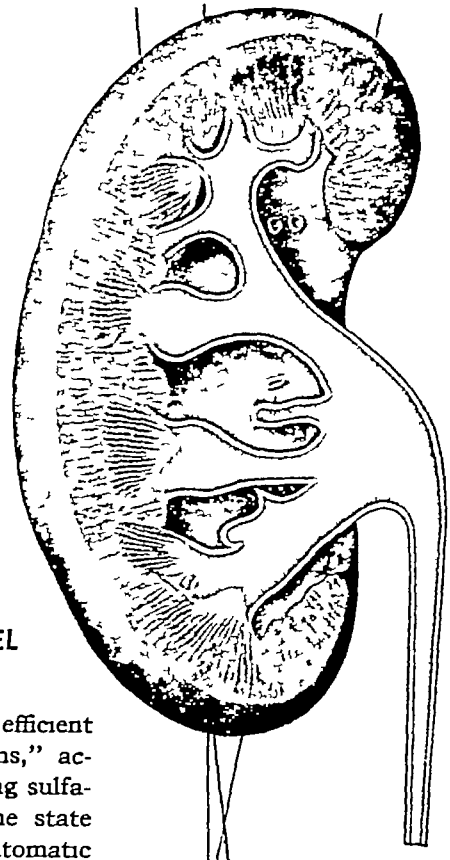
"Psychotherapy of Old Age" was discussed by Dr George Lawton at the regular monthly meeting of the Association on March 25

New York Council of Surgeons

Recent lectures presented by the New York Council of Surgeons included "The Practical Importance of Electrocardiography" on March 1, given by Dr Vincent Silvestri, adjunct physician, Montefiore Hospital, and on March 15, "Management of Dermatoses in General Practice" by Dr Harry Eil

[Continued on page 966]

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[Continued from page 964]

Eastern New York Eye, Ear, Nose and Throat Association

Dr Marjorie Murray, pediatric psychiatrist of Albany, spoke on "Psychiatric Implications of Eye, Ear, Nose and Throat Operations in Relation to Pediatrics" at a meeting of the Eastern New York Eye, Ear, Nose and Throat Association on March 3, and the members of the Association heard an address by Dr Chester S Keefer at the meeting on April 7 Dr Keefer's topic was "The Choice of Chemotherapeutic Agents in the Treatment of Infections, with Special Reference to Eye, Ear, Nose and Throat Diseases"

New York Psychoanalytic Society

The Abraham A Brill Memorial Meeting of the New York Psychoanalytic Society was held March 29 Dr C P Oberndorf spoke on "Development of Psychoanalysis in America," tracing the growth of psychoanalysis as a therapeutic method and psychiatric specialty

FUTURE

American Laryngological, Rhinological and Otological Society, Inc.

The fifty-third annual meeting of the American Laryngological, Rhinological and Otological Society, Inc , will be held from April 18 to 20 at the Drake Hotel in Chicago On the second day of the meeting, April 19, there will be a combined meeting of the American Broncho-Esophagological Association and the American Laryngological, Rhinological and Otological Society, Inc

NYU College of Medicine Bellevue Hospital Ophthalmological Alumni Association

On April 18, 19, and 20 the New York University College of Medicine-Bellevue Hospital Ophthalmological Alumni Association will hold their alumni meeting at NYU-Bellevue Medical Center

Alumni Association of the Long Island College of Medicine

The sixty-ninth annual dinner of the Alumni Association of the Long Island College of Medicine will be held on April 30 at 7 00 P M at the Columbus Club, Brooklyn The principal speaker will be Dr Jean Curran, president of the Long Island College of Medicine

Society of Medical Jurisprudence

Dr Henry H Kessler will speak on "Medical Problems in Second Injury Funds in Relation to the Employment of Handicapped Workers" at the May 12 meeting of the Society of Medical Jurisprudence to be held at 8 30 P M at the New York Academy of Medicine Building In addition, Miss Mary Donlon, chairman of the New York State Workmen's Compensation Board, will discuss "Legal Problems in Second Injury Funds"

Association for Physical and Mental Rehabilitation

The Association for Physical and Mental Rehabilitation will hold its third annual convention at the Hotel New Yorker, New York City, from May 18 to 21 More than 500 representatives from the nation's Veterans Administration, Army, Navy and civilian agencies will be present For further information contact Mr H S Wettstein at Corrective Therapy Section, Veterans Administration Hospital, Bronx.

First District Dental Society of the State of New York

A special meeting of the First District Dental Society of the State of New York will be held at the Hotel Statler, New York City, at 8 00 P M on May 25 The program will be on dentistry and atomic energy and William Ward Wainright, D D S , research biologist, Los Alamos Scientific Laboratories Atomic Energy Commission, will discuss the practical application of dentistry of atomic energy

PERSONALITIES

Honored

Dr E D Friedman, professor emeritus of neurology, New York University College of Medicine, for forty years of continuous teaching at NYU, at annual dinner of Alumni of New York University College of Medicine on February 21 On the occasion of his fiftieth anniversary in the medical profession, Dr Sidney V Haas, for his contribution to the field of pediatrics with special reference to his original and pioneering work in celiac therapy and in treatment of the hypertonic infant, at a luncheon April 5 at the New York Academy of Medicine A testimonial dinner by the New York Laryngological Society recently for Dr Charles J Imperatori, formerly of New York and now of Essex Dr Howard A. Rusk, chairman of the Department of Rehabilitation and Physical Medicine, New York University College of Medicine, on March 14 by Boston University with the conferring of honorary degree of Doctor of Science Dr Leo S Schwartz, who died on December 30, at a memorial service held under

Awarded

The Roswell Park Medal to Dr Evarts A Graham for outstanding surgical achievement, by the Buffalo Surgical Society Dr Graham will give the Roswell Park Lecture at the Kleinhans Music Hall, Buffalo, at 9 00 P M on May 5 Dr Harold C Wiggers, professor of physiology and pharmacology at Albany Medical College, granted $9,600 by U S Public Health Service for continued research in heart disease and circulatory disorders

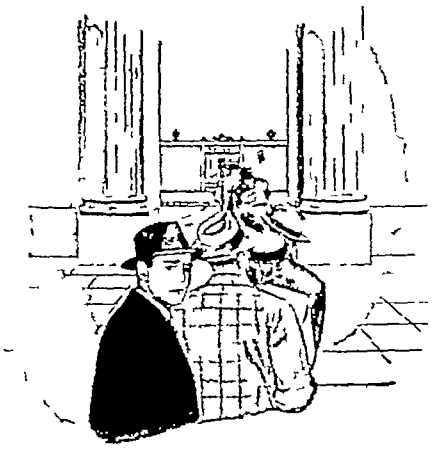
Retired

Dr Lewis Wade Heizer, supervisor of health and physical education in Watertown's public school system since October, 1929, because of ill health

Appointed

Long Island College of Medicine—Dr Harold Russell Merwarth, as associate professor of clinical neurology in the Department of Neurology, and Drs Gerald Richard O'Brien, Edward A. Griffin, and Ethelbert A Callaghan, as assistant professors

[Continued on page 968]



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[Continued from page 966]

in the Department of Otolaryngology Lieutenant Colonel Eugene A Chiarulli, as commanding officer of the 1305th Training Station Hospital, Organized Reserve Corps, with headquarters in Syracuse Dr Robert Gordon Douglas, as professor of obstetrics and gynecology at Cornell University Medical College and obstetrician and gynecologist-in-chief of New York Hospital, effective July 1, 1949 As professor of surgery at New York Post-Graduate Medical School, New York University-Bellevue Medical Center, Dr J William Hinton In the new post Dr Hinton will be director of the Fourth Surgical Division, Bellevue Hospital, and will continue as director of surgery at University Hospital, formerly New York Post-Graduate Hospital Dr Francis A Marino, Utica, as medical director of the Oneida County Welfare Department Dr David M Spain, pathologist at Bellevue Hospital, as Westchester County Medical Examiner As Broome County Coroner, Dr Glenn W Tymeson, Lisle

Elected

On March 8, Dr William G Childress, physician in charge of the Tuberculosis Division of Grasslands Hospital, Valhalla, as chairman of the Tuberculosis Sanatorium Conference of Metropolitan New York Dr Richard A Bennett, medical director of Triboro Hospital, Jamaica, and Brooklyn Thoracic Hospital, was elected vice-chairman of the conference Monticello physician, Dr Morris A Cohn, as a fellow of the New York Academy of Medicine

Speakers

Guest speakers at a Symposium on Allergy and Immunology presented in conjunction with the twentieth annual Stuart McGuire Lecture series at the Medical College of Virginia on March 17 and 18 included Dr Will C Spain, New York Post-Graduate Medical School, Dr Horace S Baldwin, Cornell University Medical College, and Dr Robert Chobot, College of Physicians and Surgeons, Columbia University On February 7, Dr A H Aaron, medical adviser to Consumers Union, Dr John Wittmer, director of Consolidated Edison Company's voluntary health plan, Dr Thurman B Givan, president of the New York Pediatric Association, and Dr William B Rawls, president of the New York County Medical Society, participated in a public forum on "Is National Health Insurance Necessary?" Dr Laurance D Redway, Ossining, and Dr Reginald O Higgons, Port Chester, both past presidents of county medical societies, against compulsory health insurance on February 6 in the Westchester Newspapers Radio Forum Dr Frank E Adair, attending surgeon at Memorial Hospital for Cancer and Allied Disease, New York, on "The Surgical Problems Involving Cancers of the Breast" as the Lord Moynihan Lecture in London before the Royal College of Surgeons on March 23 Dr Clarence G Bandler on the "Urologic Complications of Left Colon Surgery" at the April 10 meeting of the Florida Urologic Society Dr Bandler was also the guest speaker at the 1949 Annual Meeting of the Florida Medical Association on April 11 and presented a paper entitled "Hematuria, Its Clinical Significance" Dr C Ward Crampton, chairman of the Committee on Geriatrics of the New York County Medical Society, at the meeting of the Association for Successful Aging on February 3, on "De-Aging Successfully" At the 52nd anniversary banquet of the Watervliet Council, Knights of Columbus, on February 12, Dr Clement J Handron as principal speaker On February 26, new Commissioner of Hospitals, Dr Marcus D Kogel, guest of honor and principal speaker at the annual dinner of the New York State Hospital Pharmacists' Association Dr Donovan J McCune, professor of pediatrics, College of Physicians and Surgeons, Columbia University, on "The Meaning of the Basal Metabolic Rate" at a medical symposium sponsored by the Greensboro Academy of Medicine, Greensboro, North Carolina, on March 17 Dr Marjorie F Murray, associate professor of pediatrics at Albany Hospital, on "Certain Aspects of the Mental Health of the Child" before the Delmar P T A on March 8 President of the Madison County Medical Society, Dr Lee J Preston, on the history of the County Medical Society at a meeting of the Madison County Historical Society on January 21 Dr David Rittenberg, College of Physicians and Surgeons, Columbia University, on "The Use of Isotopes in the Study of the Metabolism of Glycine" at a meeting of the Research Society of the Long Island College of Medicine on March 2 Dr Howard A Rusk, chairman of the Department of Rehabilitation and Physical Medicine of New York University College of Medicine, at the first annual scientific assembly of the American Academy of General Practice in Cincinnati on March 8 Dr Allen David Shapiro, Newburgh pediatrician, at a meeting sponsored by the American Association of University Women, January 31, on "Feeding Behavior in Infancy and Early Childhood"

New Offices

Dr Peter Allen Bakal, general practice in Scotia Dr Alfred A Berger, eye, ear, nose, and throat practice at Berger Clinic, Tottenville Dr D A DeLisa, ear, nose, and throat practice in Schenectady Dr John Bradford Millet, practice of general and chest surgery in Utica He will be associated with the Slocum-Dickson Clinic

COUNTY NEWS

Albany County

On March 23 the members of the Albany County Medical Society met in the auditorium of the Albany College of Pharmacy Dr Thomas E Jones, noted authority on diseases of the colon, spoke on "Carcinoma of the Colon and Rectum"

Bronx County

A regular meeting of the Bronx County Medical Society was held on March 16 at the Concourse Plaza Hotel. Dr Isidore C Rubin addressed the members on "Sterility in the Female, Nonendocrine Aspects and Endocrine Aspects"

The program of a special meeting of the Society on March 16 was a comprehensive analysis of the national health bills now before the Congress of the United States, prepared by the joint committees on Medical Economics and Legislation

Broome County

James A Malaney, executive secretary of the Committee on Professional Conduct of the New York State Department of Education addressed the members of the Broome County Medical Society at a meeting on February 8 He discussed ways in

[Continued on page 970]

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[Continued from page 968]

which his group tracks down persons practicing medicine without a license

Cayuga County

A program of postgraduate instruction arranged by the Council Committee on Public Health and Education of the New York State Medical Society in cooperation with the New York State Department of Health will be presented at a meeting of the Cayuga County Medical Society on April 21 at 7 00 PM at the Springside Inn, Auburn The topic, "Sterility," will be discussed by Dr Ferdinand J Schoeneck, instructor in gynecology, Syracuse University College of Medicine

Clinton County

Dr Howard T Behrman, assistant clinical professor of dermatology and syphilology at New York University College of Medicine, addressed the Clinton County Medical Society on March 17 Dr Behrman's subject was the treatment of skin diseases The program was postgraduate instruction arranged by the State Medical Society with the cooperation of the New York State Health Department

Dutchess County

"A General Discussion of the General Scope of Thoracic Surgery at Its Present Stage" was the topic discussed by Dr Herbert D Adams, thoracic surgeon, Lahey Clinic, at the March 9 meeting of the Dutchess County Medical Society An informal dinner preceded the meeting

The annual meeting of the Dutchess County Branch of the American Cancer Society was held on March 19 The guest speaker was Alan Stevenson, executive secretary of the New York State Cancer Committee

Erie County

The stated meeting of the Medical Society of the County of Erie to be held on April 26 will be devoted to a consideration of the problem of cancer An afternoon clinical program will feature two physician-speakers, and the evening meeting will include an address by an outstanding authority on cancer The Special Committee on Cancer Control of the County Medical Society, headed by Dr Samuel Sanes, is in charge of the arrangements

Franklin County

The Saranac Lake Medical Society met on March 8 at the Hotel Saranac Dr Hugh Wilson, professor of radiology, Yale University School of Medicine, spoke on "Correlation of Roentgenologic and Pathologic Material in Pulmonary Disease"

Fulton County

On March 17 at a meeting of the Fulton County Medical Society, Dr Harry A. Steckel, professor emeritus of psychiatry, Syracuse University College of Medicine, gave a talk on "Psychosomatic Medicine" as a lecture on postgraduate instruction arranged by the New York State Medical Society with the cooperation of the State Department of Health

Herkimer County

Dr Robert Stevens, Utica, delivered a lecture on "Diagnosis and Treatment of Herniated Intervertebral Disks" at the February 8 meeting of the Herkimer County Medical Society, and the members of the Society heard Dr J G Fred Hiss, clinical professor of medicine, Syracuse University College of Medicine, discuss "Rheumatic Fever" at the April 12 meeting The latter was a program of postgraduate instruction

Jefferson County

"Plasma Therapy, Whole Blood Transfusion, and the Use of Blood Substitutes and Derivatives" was the topic of a lecture in postgraduate instruction arranged by the State Medical Society with the cooperation of the State Department of Health given by Dr Samuel Standard, associate professor of clinical surgery and lecturer on physiology, New York University College of Medicine. The program was presented at the meeting of the Jefferson County Medical Society on March 15

Kings County

A joint meeting of the Kings County Medical Society and the Brooklyn Society of Internal Medicine was held on March 15 Dr Hans Selye, professor of medical research, Montreal University, spoke on "Adaptation Syndrome and Diseases of Adaptation" and Dr Thomas P Magill, professor of bacteriology, Long Island College of Medicine, gave a talk on "Modern Concepts of Immunology and Epidemiology"

A series of Friday afternoon lectures presented by the Kings County Medical Society at 4 00 PM. at the McNaughton Auditorium include the following

March18—"Importance of Time Element in the Treatment of Fractures" by Dr Frederick M. Smith, assistant professor of clinical orthopedic surgery, College of Physicians and Surgeons, Columbia University Also a film, "Fracture Introduction," was shown under the sponsorship of the National Fracture Committee of the American College of Surgeons

March 25—"The Problem of Therapeutic Abortion" by Dr Nicholson J Eastman, professor of obstetrics, Johns Hopkins University School of Medicine

April 8—"Surgical Treatment of Deafness" by Dr Robert L Moorhead, senior surgeon, Brooklyn Eye and Ear Hospital Dr Julius Lempert's film on the "Fenestration Operation" was also shown

April 22—"Functional Uterine Bleeding" by Dr Robert B Greenblatt, professor of endocrinology, University of Georgia School of Medicine

April 29—"Hemolytic Diseases" by Dr William Damashek, clinical professor of medicine, Tufts College Medical School.

Livingston County

At a recent joint meeting of the Livingston County Medical Society and the Mount Morris Tuberculosis Hospital Dr Lawrence A. Kohn spoke on the management of hypertension.

Monroe County

The second annual observance of Heart Week in Monroe County was highlighted by a round-table discussion on "Progress on the Heart Disease Front" on March 17 Dr Albert D Kaiser, city health officer, served as moderator Among the sponsoring groups for the meeting were the Rochester Health Bureau, the Rochester Tuberculosis and Health Association, and the Monroe County Medical Society

[Continued on page 972]



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[Continued from page 970]

The Medical Society of the County of Monroe is sponsoring a series of 13 weekly radio broadcasts in opposition to any program of socialized medicine The talks may be heard on Sundays at 12 45 P M over a Rochester station

Nassau County

The regular monthly meeting of the Nassau County Medical Society held on February 22 included addresses on "United Medical Service and Associated Hospital Service" by Dr Frederic E Elliott, Mr John McCormack, and Mr Frederic Newell.

The April 14 meeting of the seminar on "Psychosomatic Problems in General Practice" was under the chairmanship of Dr Peter Denker Two papers were presented as follows "The Community Care and Commitment of the Mentally Ill" by Dr Milton C Meeks and "Care and Treatment in the State Hospital" by Dr Reginald R. Steen The final meeting will be held on April 21 at 4 00 P.M. at the Nassau Hospital Auditorium and will consist of a round-table discussion on the "Treatment of Nervous and Mental Disease in Private Practice" Dr James L McCartney will act as moderator, and the speakers will be as follows Dr H. Lawrence Sutton on "Drug Therapy, with Discussion on Narcosynthesis and Hypnosis", Dr Alex E Gold on "Psychoanalysis as Therapy", Dr Stanley T Michael on "Electric Shock and Narcosis", and Dr Jack London on "Surgery in the Treatment of Nervous and Mental Disease" The seminar is being presented by the members of the Nassau Neuropsychiatric Society and under the auspices of the Committee on Postgraduate Education of the Nassau County Medical Society

Niagara County

Mr Joseph J Guarigha, secretary of the Workmen's Compensation Committee of Erie County Medical Society, spoke on "The Doctor and the Law" at the March 8 meeting of the Niagara County Medical Society

Oneida County

On March 17 the medical aspects of the atomic bomb were discussed by Dr Joe W Howland, chief of the Division of Medical Services of the Atomic Energy Project at the University of Rochester, School of Medicine and Dentistry, at a meeting of the Utica Academy of Medicine The program was arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Ontario County

Two programs of postgraduate instruction were presented recently at the Geneva Academy of Medicine. On February 17 Dr Samuel Kleinberg spoke on back pain, and on March 17 Dr R. Townley Paton, New York University College of Medicine, discussed the indications, contraindications, and technic of penetrating and nonpenetrating corneal grafts These programs were arranged by the State Medical Society in cooperation with the New York State Department of Health.

Dr Griffith J Winthrop addressed a meeting of the Canandaigua Medical Society on February 4 Dr Winthrop's topic was the treatment of habitual abortion with diethylstilbestrol.

Queens County

Recent Friday afternoon lectures arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York were as follows

March 4—"Borderline Aspects of Heart Disease," Dr Harry E Ungerleider, medical director of the Equitable Life Assurance Society of the United States

March 11—"Treatment of Hemorrhage in Shock," Dr Charles L Fox, Jr , assistant professor of bacteriology at the College of Physicians and Surgeons, Columbia University

March 18—"The Clinical Signs of Deficiency Diseases," Dr Norman Jolliffe, director of the Bureau of Nutrition, New York City Department of Health

Rensselaer County

A public forum meeting on compulsory health insurance was held on February 23 under the auspices of the Rensselaer County Medical Society Mr Arthur L Conrad, associate administrator of the National Physicians' Committee, was the guest speaker

The Rensselaer County Heart Association was formed, and Dr John J Quinlan, Troy, was unanimously elected its first president at a meeting on February 2

The Rensselaer County Medical Society at a meeting on February 8 unanimously endorsed a list of 12 suggestions of the Rensselaer County Welfare Committee aimed at effecting greater economy in medical treatment of welfare cases Members of the Society also heard Dr Wyland Leadbetter, clinical professor of urology at Tufts College Medical School.

Richmond County

Dr Louis H Bauer, vice-chairman, Board of Trustees, American Medical Association, addressed a joint meeting of the Richmond County Medical Society and the Woman's Auxiliary on March 9 Dr Bauer spoke on the history of the compulsory health insurance movement in the United States and the system as it is in effect in various other countries

Saratoga County

The following lectures in postgraduate instruction were presented recently at meetings of the Saratoga County Medical Society

March16—"The Recognition and Management of Psychiatric Problems in General Practice," Dr Gilbert M Beck, professor of psychiatry, University of Buffalo, School of Medicine

March 23—"The Diagnosis and Treatment of Rheumatic Fever and Rheumatic Heart Disease," Dr Adolph R. Berger assistant professor of clinical medicine New York University College of Medicine

March 30—"The Diagnosis and Treatment of Common Skin Diseases" Dr Nathan Sobel, assistant professor of clinical dermatology and syphilology, New York University College of Medicine.

April 6—"The Diagnosis and Treatment of the Acute Abdomen," Dr Leon G Berman, clinical associate professor of surgery, Syracuse University College of Medicine

These programs were provided by the Council Committee on Public Health and Education of the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Schenectady County

Dr Stewart C Nash, president of the American

[Continued on page 974]



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[Continued from page 972]

Hearing Society and assistant surgeon at Strong Memorial Hospital, Rochester, spoke on "Deafness As It Occurs in Various Age Groups" at a meeting of the Schenectady County Medical Society on March 1

Tompkins County

The annual dinner of the Tompkins County Medical Society was held on February 28 with Dr Herman E Hilleboe, New York State Commissioner of Health, as speaker

The members of the County Medical Society heard Harold A. Solomon, D D S , cancer dental surgeon, Roswell Park Memorial Institute, talk on "Clinical and Radiographic Diagnosis of Oral Tumors" at a meeting on March 21 The program was postgraduate instruction arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Westchester County

A panel discussion on the proposed national health insurance program and other plans for the extension of medical care was presented at the March 15 meeting of the Westchester County Medical Society Dr Waring Willis acted as moderator, and speakers included Drs Reginald Atwater, George Baehr, Louis H Bauer, George Perrott, and William B Rawls

Dr Charles A Weymuller, professor of pediatrics, Long Island College of Medicine, addressed a joint meeting of the pediatric section of the Westchester County Medical Society and county obstetricians recently His topic was "Mortality of the Premature"

NECROLOGY

[Continued from page 955]

Academy of Medicine, he was a past president of the Westchester County Medical Society and the New Rochelle Medical Society As well as being a charter member of the Westchester Obstetrical and Gynecological Society, he also belonged to the New York Obstetrical Society, the New York State and Westchester County Medical Societies, and the American Medical Association

Alfred Winslow Wheeler, M.D , seventy-five, died February 28 of a heart attack. Dr Wheeler, one of the last horse and buggy doctors in St Lawrence County, was a graduate of the College of Physicians and Surgeons, Columbia University, in the year 1902 and had practiced medicine in Norfolk and the surrounding area for the last forty-five years He was a member of the American Medical Association and the New York State and St Lawrence County Medical Societies

Frank Fay Williams, M.D , ninety-one-year-old dean of St Lawrence County physicians, was killed in an automobile collision on March 13 Dr Williams was graduated from New York Homeopathic College in 1883 and took up practice in Canton the following year He had maintained this practice for the past sixty-five years and during that time had also served as health officer Dr Williams was a member of the American Medical Association and the New York State and St Lawrence County Medical Societies at the time of his death

Arthur C Woggon, M D , fifty-three, of Rochester, died on March 16 Dr Woggon, alumnus of the University of Buffalo, School of Medicine, class of 1920, and Sloane Maternity Hospital, was chief of the Department of Obstetrics at Park Avenue Hospital, Rochester, senior obstetrician at Rochester General Hospital, and an associate physician in the Department of Obstetrics and Gynecology at Strong Memorial Hospital He was a diplomate of the American Board of Obstetrics and Gynecology and a member of the Rochester Academy of Medicine, the Rochester Pathological Society, the Alumni Association of Sloane Maternity Hospital, the New York State and Monroe County Medical Societies, and the American Medical Association

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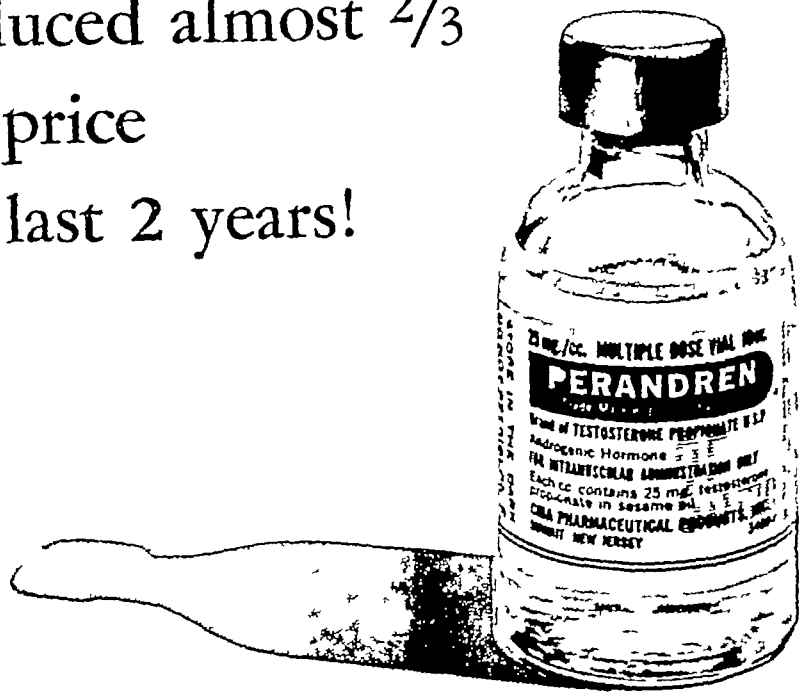
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NEW YORK STATE JOURNAL OF MEDICINE



May 1, 1949

Scientific Articles

Tetra-ethyl-ammonium Chloride in Peripheral Vascular Diseases

Survey of 723 Cases of Cholecystitis and Cholelithiasis

Standards for Care of Chronically Ill

Editorials

Medical Officers Needed

Radio Forums on National Health Insurance

Rehabilitation of the Hemiplegic



For Complete Table of Contents See Pages 980 and 982



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NEW YORK STATE JOURNAL OF MEDICINE



May 1, 1949

Scientific Articles

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For Complete Table of Contents, See Pages 980 and 982

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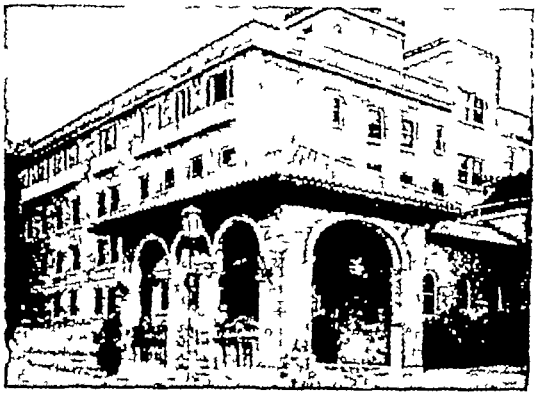
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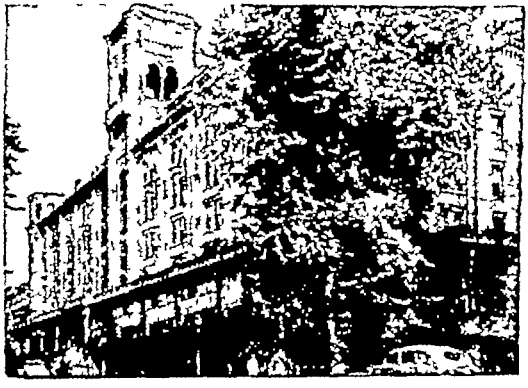
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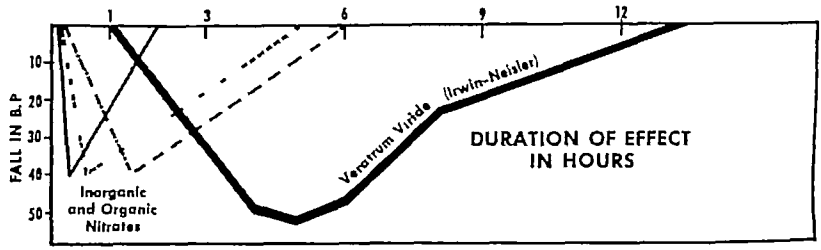
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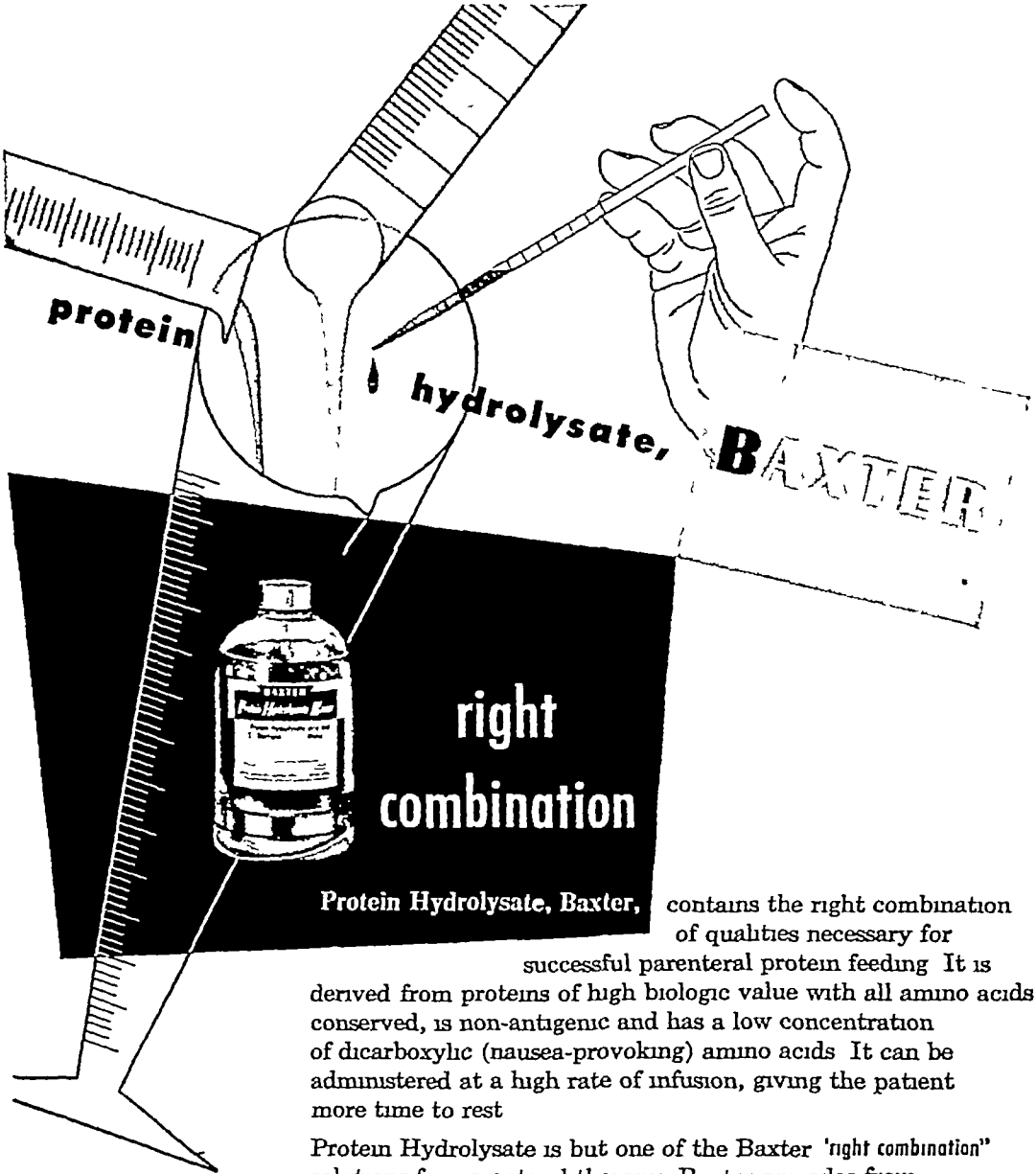


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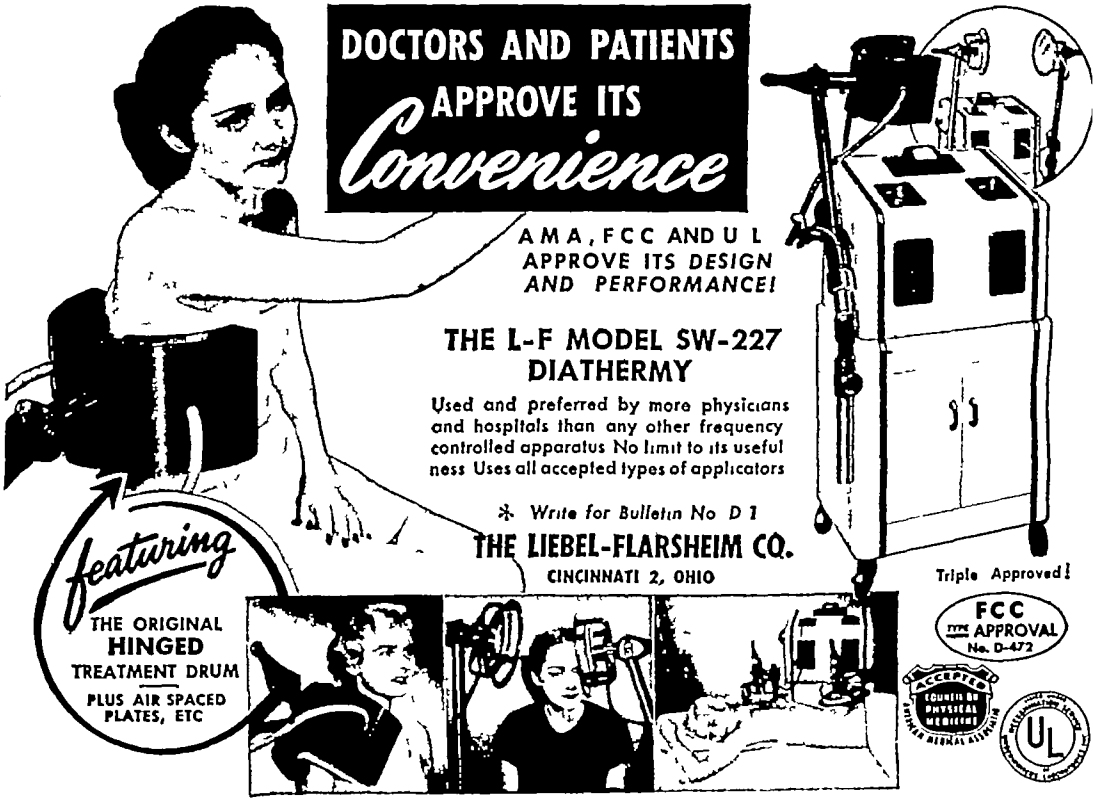
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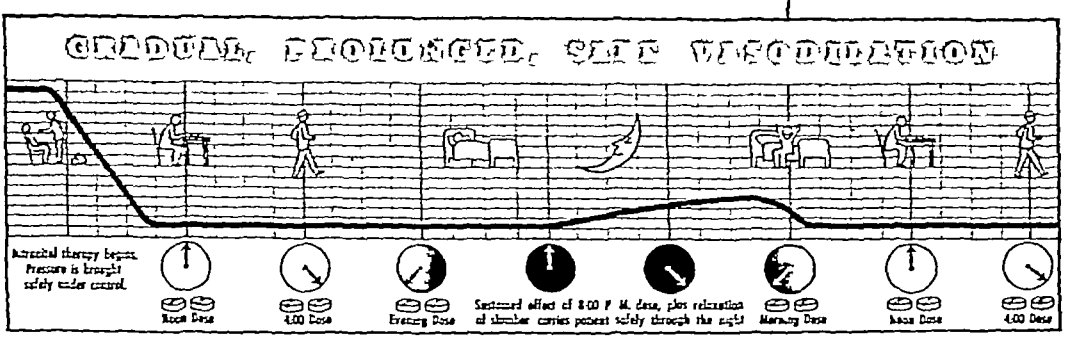
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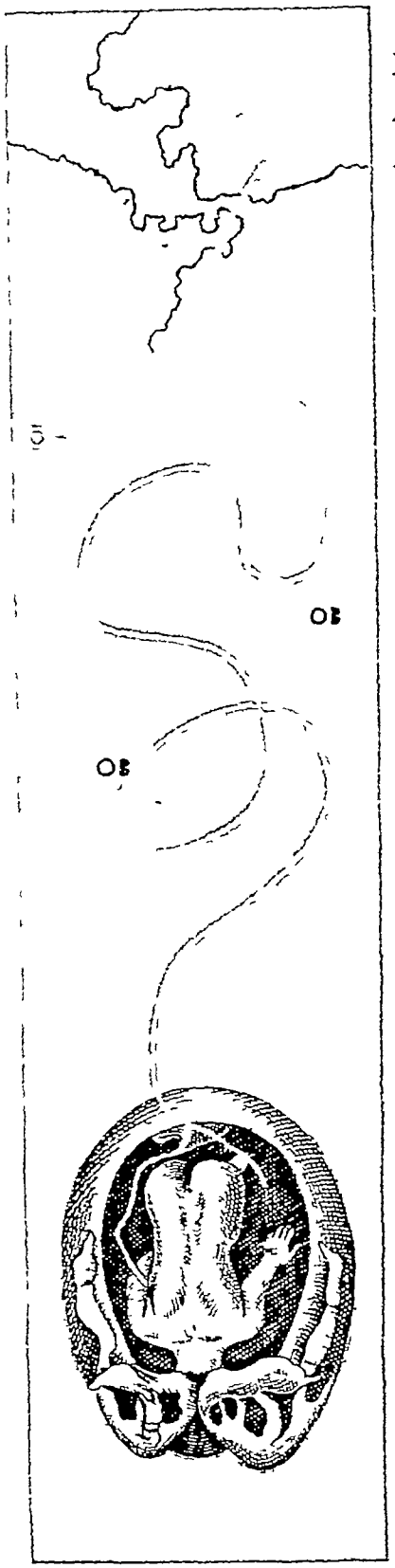
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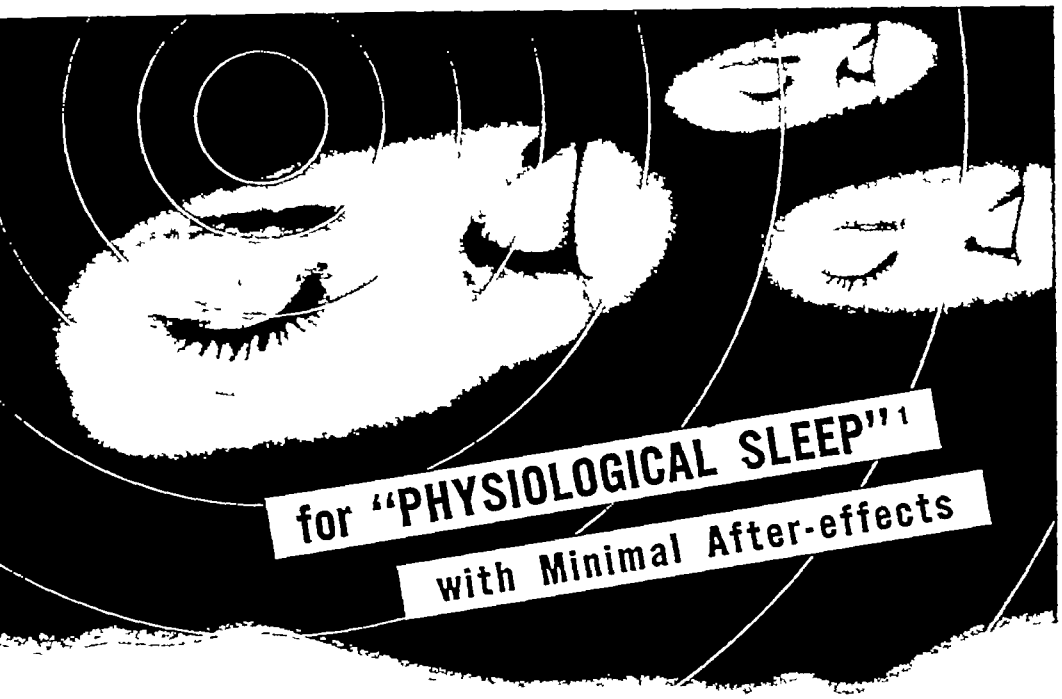
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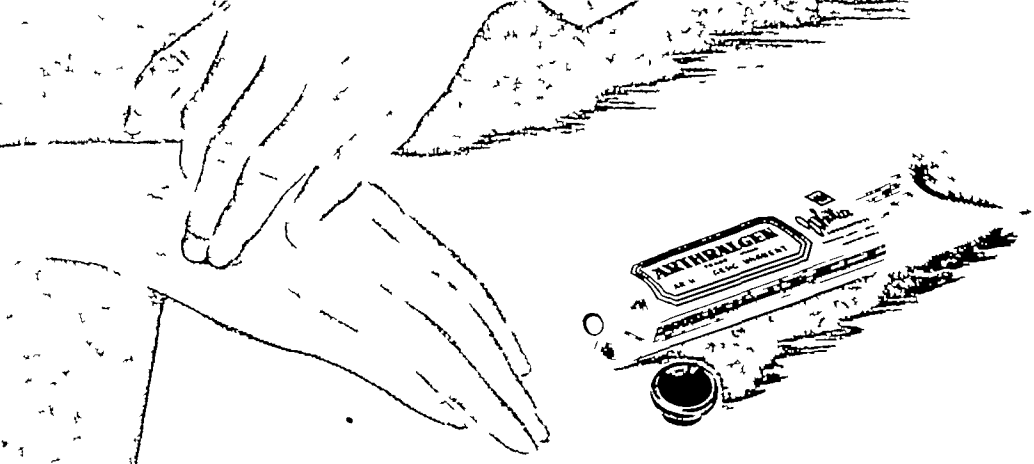
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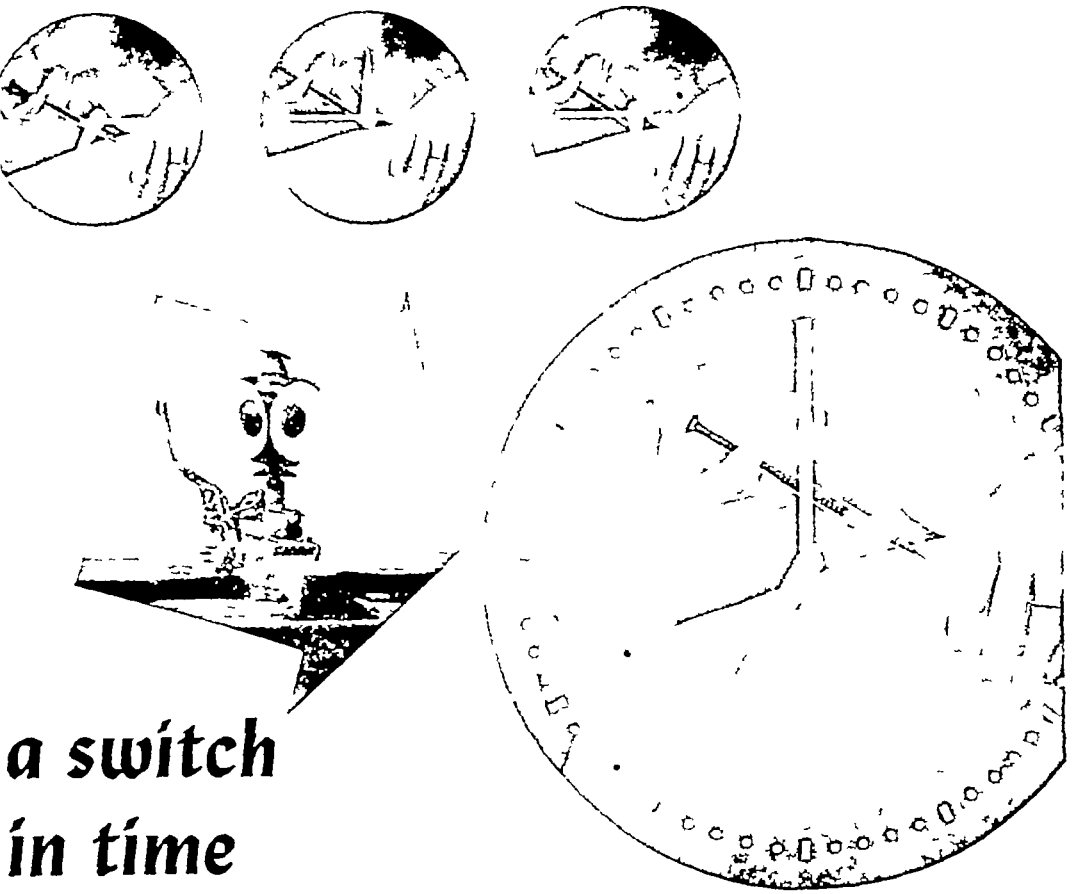
A *single* application of Arthralgen by deep massage affords rapid and sustained relief of the pain stiffness and disability associated with articular and non articular rheumatic disorders Vasodilatation due to methacholine chloride rubefaction due to thymol and menthol analgesia due to methyl salicylate—these pharmacologic effects of Arthralgen are translated clinically into effective relief of muscle and joint pain within a few minutes of application This remarkably rapid action is favored by selected wetting agents in the ointment base which lower surface tension and assure quick and thorough penetration The hyperemia resulting from the synergistic influence of the active ingredients prolongs the duration of effect which can be further extended up to *six* hours by concomitant exposure of the affected parts to moist or dry heat

ARTHRALGEN ***is highly effective*** in fibrositis whether occurring in the fibrous insertions and aponeuroses of muscles (myositis lumbago) or in the joint capsules and bursae (synovitis bursitis) or in the supporting structures of nerves (neuritis, sciatica) It is useful also as adjunctive treatment in rheumatoid arthritis during the early phases of systemic therapy Since Arthralgen does not contain histamine it is relatively free from such untoward side effects as itching urticareal wheals or profound drop in blood pressure

Packaging: One-ounce tubes on prescription and half pound jars for office and institutional use.

Arthralgen contains methacholine chloride 0 25% thymol 1% menthol 10% and methyl salicylate 15% in a highly absorbable washable emollient base

Whittier



a switch in time

A SWITCH to 'Wellcome' Globin Insulin with Zinc can often save the annoyance of a second or third daily insulin injection—for in many cases the patient's needs can be supplied with *only one injection a day* of this unique intermediate-acting insulin Three distinct steps provide the welcomed change-over

1 THE INITIAL CHANGE-OVER DOSAGE The first day, 30 minutes or more before breakfast, give a single dose of Globin Insulin, equal to ½ the total previous daily dose of protamine zinc insulin or of protamine zinc insulin combined with regular insulin The next day dose may be increased to ⅔ former total

2 ADJUSTMENT TO 24-HOUR CONTROL Gradually adjust the Globin Insulin dosage to provide 24-hour control as evidenced by a fasting blood sugar level of less than 150 mgm or sugar-free urine in the fasting sample

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Most mild and many moderately severe cases may be controlled by *one daily injection of Wellcome' Globin Insulin with Zinc* Vials of 10 cc , 40 and 80 units per cc Developed in The Wellcome Research Laboratories Tuckahoe, New York U S Pat 2 161,198 Literature on request

Wellcome Trademark Registered

'WELLCOME' Globin Insulin WITH ZINC

BURROUGHS WELLCOME & CO (U S A.) INC, 9 & 11 EAST 41ST STREET, NEW YORK 17, N Y

(ammonia dermatitis)

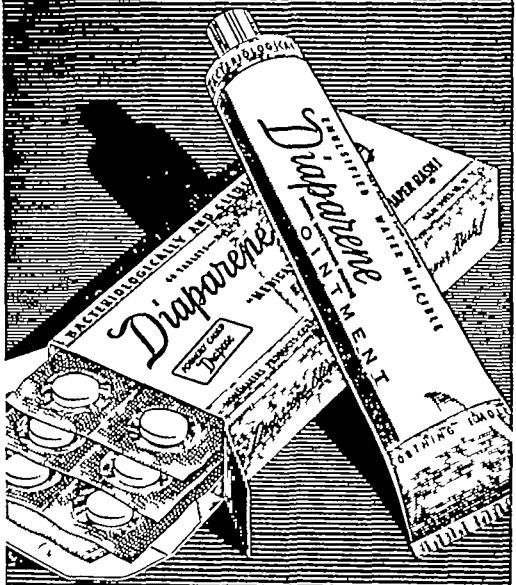
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TABLETS — THE ANTI-AMMONIACAL RINSE FOR NIGHT DIAPERS

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OINTMENT — THE WATER-MISCIBLE ANTI-BACTERIAL FOR DAY CARE



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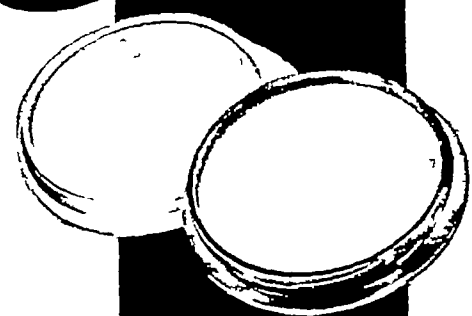
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EFFECTIVE LOCAL MEDICATION

Cosmedi-Cake





Provides the recognized dermatological benefits of resorcin and sulfur in an opaque, tinted base that hides the lesion COSMEDI-CAKE produces an immediate psychic lift on the first application, and enlists the patient's cooperation in following the prescribed regimen

Available at All Pharmacies Literature and samples to physicians on request

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COSMEDI-CAKE #1, *plain*, and COSMEDI-CAKE #2, *medicated*, with resorcin and sulfur.

Hypoallergenic cream cake make-ups... both available in two tints to suit individual complexions.



Preferred by young male patients

COSMEDI-CREME

Active Ingredients: Resorcin, Sulfur, Dichlorphenene.

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When cigarette smoking is a factor in throat irritation,
many leading nose and throat specialists suggest*
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1 Stop Smoking,
2 Smoke less,
3 *Change to* Philip Morris!

• Philip Morris is the *only* cigarette proved definitely and measurably less irritating!** Perhaps you too will find it worth while to suggest "*Change to* PHILIP MORRIS" by far the wisest choice for *everyone* who smokes



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DO YOU SMOKE A PIPE? We suggest an unusually fine blend — COUNTRY DOCTOR PIPE MIXTURE Made by the same process as used in the manufacture of Philip Morris Cigarettes

*Completely documented evidence on file
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Laryngoscope Feb 1935 Vol XLV No 2 149 154 Laryngoscope Jan 1937 Vol XLVII No 1 58-60 Proc Soc Exp Biol and Med 1934 32 241 N Y State Journ Med Vol 35 6-1 25 No 11 590-592

description

Smooth, refreshing, chocolate-mint-flavored suspension of nontoxic SULFASUXIDINE® succinylsulfathiazole (95% retained in bowel), 10%, *Pectin*, 1%, and *Kaolin*, 10% Particularly well accepted by infants and children Toxicity is negligible

indications

Nonspecific diarrhea, especially the "summer complaint" of infants Consolidates fluid stools, soothes inflammation, checks enteric bacteria, detoxifies products of enteric putrefaction

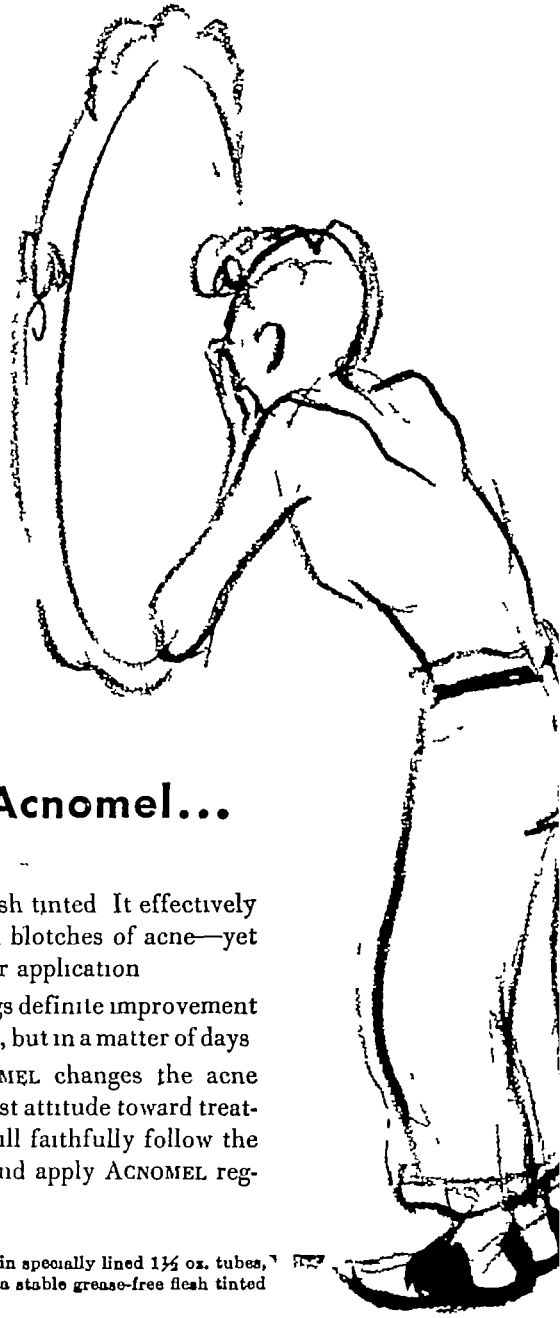
cremosuxidine®

Sulfasuxidine® suspension with pectin and kaolin

dosage

Infants 2-3 teaspoonfuls, 4 times daily
Children 1-2 tablespoonfuls, 4 times daily.
Adults 2-3 tablespoonfuls, 4 times daily
Supplied in 16 fl oz *Spasaver*® bottles
Sharp & Dohme, Philadelphia 1, Pa

SHARP & DOHME



Your acne patient

cooperates

when you prescribe Acnomel...

Because ACNOMEL is delicately flesh tinted It effectively masks the blemishes and blotches of acne—yet is virtually invisible after application

ACNOMEL ordinarily brings definite improvement —not in months or weeks, but in a matter of days

Thus, the use of ACNOMEL changes the acne patient's typically defeatist attitude toward treatment Encouraged, he will faithfully follow the regimen you prescribe and apply ACNOMEL regularly, as you direct

Available, on prescription only, in specially lined 1½ oz. tubes, Resorcinol 2% sulfur 8% in a stable grease-free flesh tinted vehicle.

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Acnomel

a significant advance, clinical and cosmetic,

in acne therapy

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THIS first commercial installation of its kind combines—under glass roof and walls—infrared heat lamps a new type of ultraviolet mercury arc, and R. S reflector sunlamps to duplicate the light both infrared and ultraviolet, that produces the radiant warmth and benefit of natural sunshine

Ideal for post-operative recuperation and convalescence

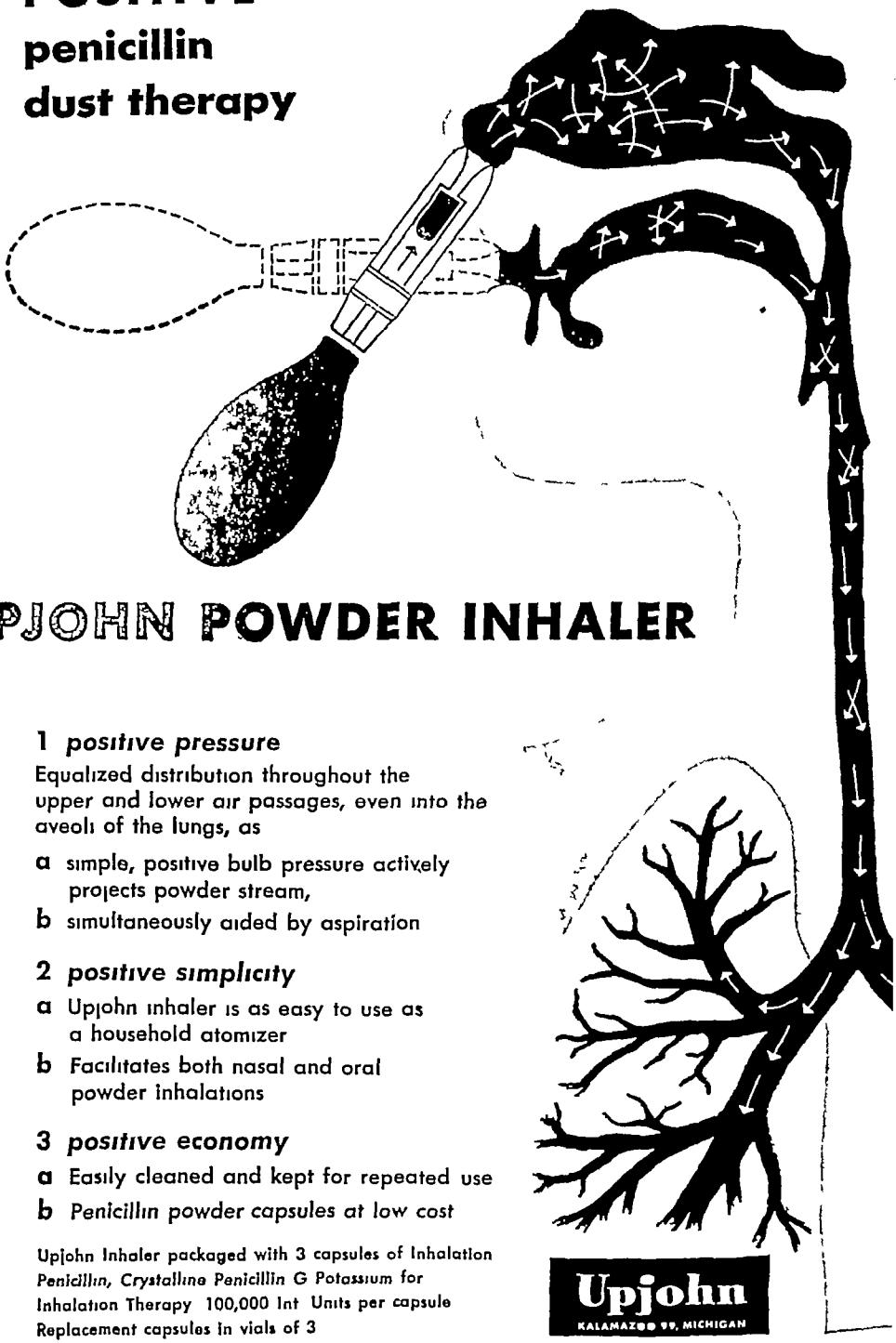
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1 ***positive pressure***

Equalized distribution throughout the upper and lower air passages, even into the aveoli of the lungs, as

- **a** simple, positive bulb pressure actively projects powder stream,
- **b** simultaneously aided by aspiration

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- **a** Upjohn inhaler is as easy to use as a household atomizer
- **b** Facilitates both nasal and oral powder inhalations

3 ***positive economy***

- **a** Easily cleaned and kept for repeated use
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Upjohn Inhaler packaged with 3 capsules of Inhalation *Penicillin, Crystalline Penicillin G Potassium* for Inhalation Therapy 100,000 Int Units per capsule Replacement capsules in vials of 3

Upjohn

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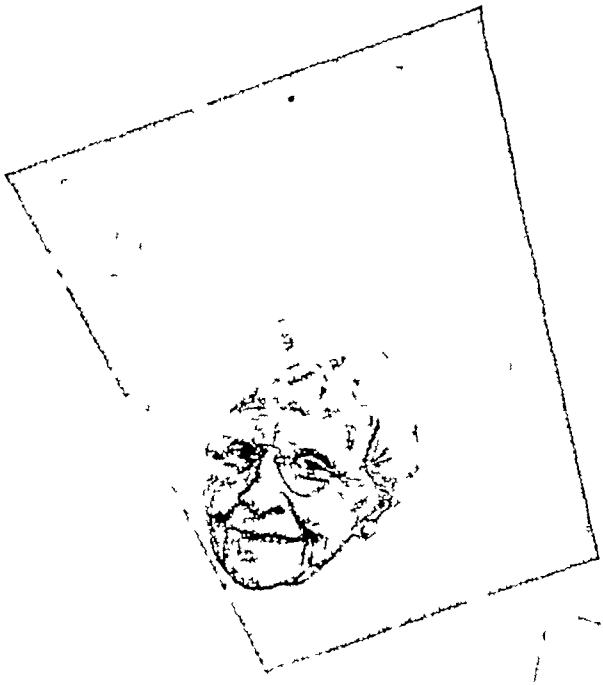


No, we don't look down the throat of each cow! But the herds are carefully examined by inspectors trained to make sure they are in the best of health.

Herd inspection is just one of many careful controls we use to assure that our evaporated milk is entirely safe for your tiniest patient

Nestle's Evaporated Milk is uniform in composition, easily digested. Adequate antirachitic protection is assured by the 400 U.S P units of genuine vitamin D_3 provided in each pint of Nestlé's milk—the first evaporated milk to be so fortified

DOCTORS EVERYWHERE KNOW NESTLÉ'S



What a good tonic means to your elderly patient

Eskay's Neuro Phosphates

The benefit of a good tonic is not entirely limited to its tone restoring and appetite stimulating effects Most physicians know how much the little ceremony of taking each pre-meal dose of Eskay's Neuro Phosphates can brighten "the endless, daily, dull routine" of the elderly patient's life And—of great importance—"her tonic" is an ever present symbol of the reassuring and comforting fact that she is "in the care of her physician "

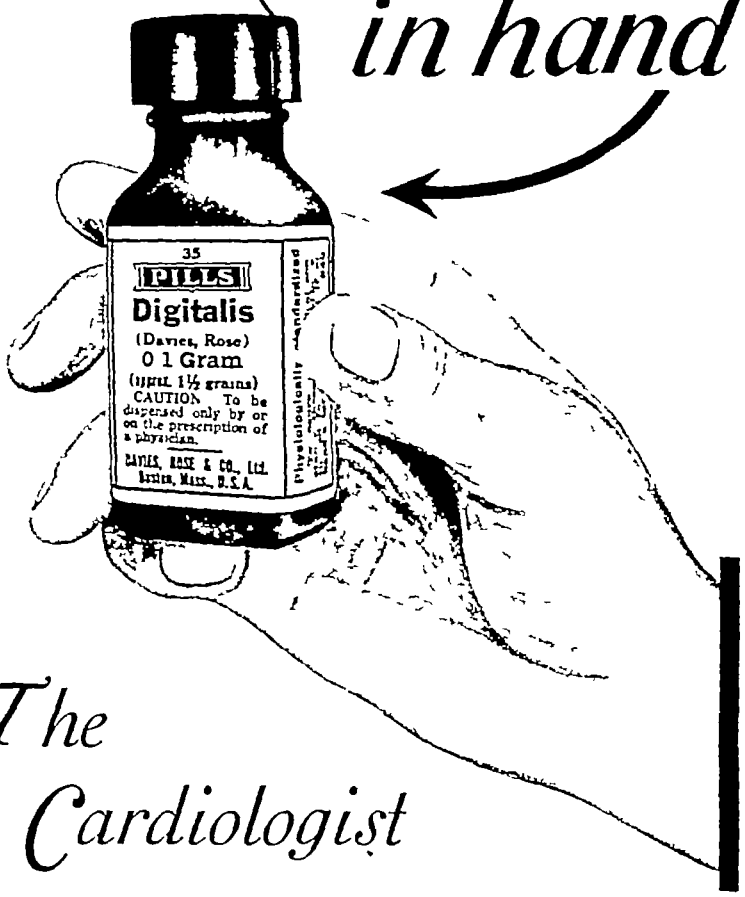
it is prescribed so widely because it works so well

Each adult dose, 2 fluid drams (2 teaspoonfuls), contains	
Alcohol	10 per cent
Strychnine glycerophosphate, anhydrous	1/64 grain
Sodium glycerophosphate	2 grains
Calcium glycerophosphate	2 grains
Phosphoric acid, 75%	1 7 minims

Available in 12 fl oz bottles

Smith, Kline & French Laboratories, Philadelphia

With this in hand



The Cardiologist

is assured of

Dependability in Digitalis Administration

Being the powdered leaves made into
physiologically tested pills,
all that Digitalis can do, these pills will do

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D-14

NEW *and important*

in peptic ulcer therapy

RESMICON™ the combination of ion exchange polyamine *resin* and gastric *mucin*, is a new and significant advance in ulcer therapy Unlike the host of ordinary "antacids," Resmicon utilizes new principles for the relief of pain and control of damage in peptic ulcer

RESMICON furnishes a non toxic, non absorbable ion exchange polymer, or *resin*, which does not "neutralize" or "buffer hydrochloric acid, but simply takes it out of action At the same time it inactivates pepsin Pain and distress are thereby rapidly controlled There are no side actions

RESMICON furnishes gastric *mucin* for protection of the eroded area by forming a dense, tenacious coating over the gastric mucosa Long clinical experience has pointed to the indispensability of mucin's natural protective barrier action But its full potentiality has hitherto been unrealized because of lack of simultaneous control of gastric acidity and pepsin

RESMICON

SMICON tablets relieve ulcer pain within 5 to 10 minutes Relief is usu-
ily complete and prolonged Side actions usual with "neutralizing" antacids
ebound hyperacidity, constipation) are absent Resmicon — an out-
anding approach to ulcer therapy — is new and important

SMICON *tablets contain 170 mg specially prepared gastric mucin*
ind 500 mg anion exchange polyamine polymer resin Typical dosage
n hyperacidity *Chew thoroughly* 1 tablet every 3 or 4 hours or as nec-
ssary in peptic ulcer (acute phase) *Chew thoroughly* 1 or 2 tablets
very 1 *or* 2 *hours and* 2 *to* 4 *hours prior to bedtime No fluids should*
e taken for a period of one-half hour following administration
Antispasmodics may be administered concurrently Proper dietary
precautions should be observed or (for routine management) 1 or
2 tablets every 2 or 3 hours and after meals

Supplied in bottles of 84 tablets

STATISTICALLY SIGNIFICANT

Recent important investigations confirm superiority of molybdenized ferrous sulfate in iron-deficiency anemia.

Dieckmann, W. J , and Priddle, H D Anemia of Pregnancy Treated with Molybdenum-Iron Complex, Amer J Obstet & Gynecol , (March) 1949.

Dieckmann and associates recently undertook an evaluation of molybdenized ferrous sulfate (Mol-Iron) in anemia of pregnancy—a relatively resistant type of anemia

A carefully selected group of patients was given Mol-Iron in a dosage 2 tablets 3 times daily, a compale group of patients who received o iron medication served as controls

FINDINGS: "The patients who were treated showed a rapid increase in hemoglobin and hematocrit with a mean at term of 11 8 Gm per 100 ml and 36 volumes per cent—high figures for pregnant patients The mean for the present control group is 10 7 Gm of hemoglobin per 100 ml and a hematocrit of 32 6 volumes per cent (at term) At six weeks post partum, the patients who had been on molybdenum-iron had a mean of 12 2 Gm per 100 ml as compared with 11 2 for the present (control) group "

COMMENT: "We have never had other iron salts so efficacious in pregnant patients Our results with the molybdenum-iron complex have been so striking that, if the patient has taken this medication for three weeks and shown no significant increase in the hemoglobin concentration, the therapy is stopped and a more extensive study (bone marrow biopsy, gastric analysis, reticulocyte count, etc) made to determine the cause of the anemia "

SUMMARY: "We believe that the value of this molybdenum-iron complex has been demonstrated as being very effective in increasing the hemoglobin of pregnant patients who are anemic "

ADVANCE IN ANEMIA THERAPY

Talso, P J Anemia in Pregnancy, J Ins Med, 4 31-34 (Dec-Jan-Feb) 1948-1949

"The encouraging results obtained with molybdenumized ferrous sulfate in the microcytic hypochromic group indicate a better prognosis in these conditions in the future with a resultant improvement in maternal health generally"

Chesley, R F, and Annitto, J E Evaluation of Molybdenized Ferrous Sulfate in the Treatment of Hypochromic Anemia of Pregnancy, Bull Margaret Hague Maternity Hospital, 1 68-75 (Sept) 1948

"... molybdenized ferrous sulfate produced a substantially more rapid therapeutic response than ferrous sulfate, the difference in response being statistically significant Addition to ferrous sulfate of either liver-stomach extract or folic acid did not potentiate the action of the iron salt

"None of the patients treated with molybdenized ferrous sulfate complained of more than mild digestive symptoms related to the medication However, 8 per cent of the patients originally selected for treatment with ferrous sulfate had to be withdrawn from the study because of consequent digestive up-sets"

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MOLYBDENIZED FERROUS SULFATE

a specially processed, co precipitated, stable complex of molybdenum oxide 3 mg (1/20 gr) and ferrous sulfate 195 mg (3 gr) In bottles of 100 and 1000 Tablets Also available in a highly palatable Liquid, in bottles of 12 fluid-ounces

WHITE LABORATORIES, Inc, Pharmaceutical Manufacturers, Newark 7, N J.

AN IMPORTANT NEW MILESTONE

in the Therapy of Arthritic Affections..

The "cure of [rheumatic fever]", agree most authoritative sources,[2,3,5,6] "depends not only on reaching, but also on maintaining a high plasma salicylate level"[3] The correlation between such blood levels and symptomatic improvement is graphically shown in the table at the right[6]

Pabalate—latest product of Robins' research —now helps to achieve and maintain *higher salicylate blood levels on lower salicylate dosage*

This is made possible by the combination in Pabalate of non-toxic para-aminobenzoic acid with sodium salicylate As visualized in the chart at the lower right,[4] para-aminobenzoic acid (itself an active antirheumatic)[7] manifests a reciprocal action with salicylates when administered concurrently—sharply increasing the blood salicylate levels (under constant salicylate dosage),[1,4] and in turn having its own blood levels effectively enhanced[4]

The clinical significance of this synergistic relationship represents an important advantage in the therapy of arthritic affections Pabalate 'Robins'—a strictly ethical preparation— is available at (or may be secured by) all leading pharmacies

Salicylate blood level (in mg. per 100 cc.)	Erythrocyte sedimentation
less than 20 mg.	no fall
20-30 mg.	slow fall
30-40 mg	RETURN TO NOR CLINICAL SYMP SUBSIDE

A. H ROBINS CO, INC., RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878

indications Rheumatoid arthritis, acute rheumatic fever, fibrositis, gout, osteo-arthritis

dosage Two or three enteric coated tablets every three or four hours, without sodium bicarbonate

formula Each enteric coated tablet contains Sodium salicylate, U S P (5 gr), 0.3 Gm , Para aminobenzoic acid (as sodium salt), (5 gr), 0 3 Gm

supplied In bottles of 100 and 500 enteric coated tablets.



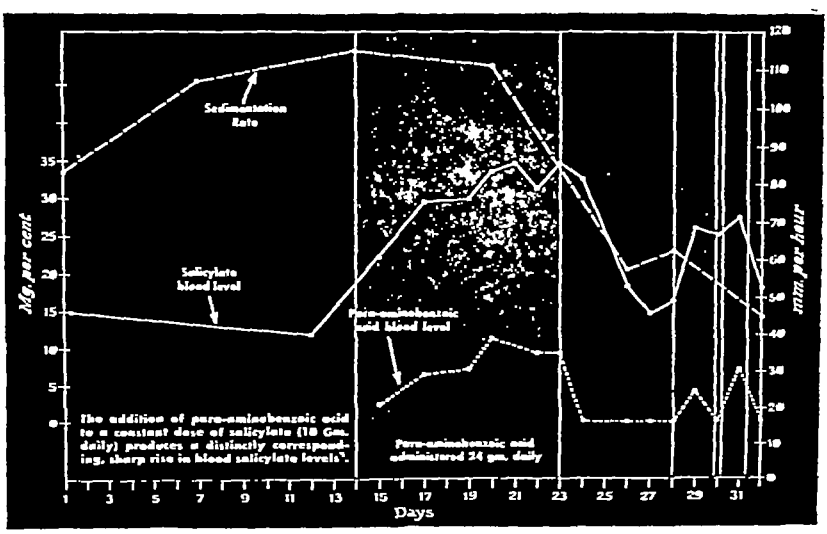
For high salicylate blood levels on low salicylate dosage—

Pabalate®

Pabalate tablets are enteric coated to prevent gastric irritation and insure optimal toleration

Robins





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L. Union Med. Can., 948.

B. et al. J Pharmacol. r Therap., 80 114 19.4

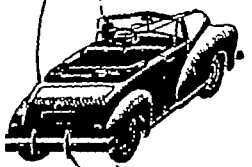
A. F Bull. Johns Hopkins 435 1943.

et al. Proc. Staff Mayo Clin., 21 497 1946.

J.A.M.A., 138 367 1948.

Quarterly J Med., 948.

m, H. and Fraser L. E. Exper Biol. and Med. 947



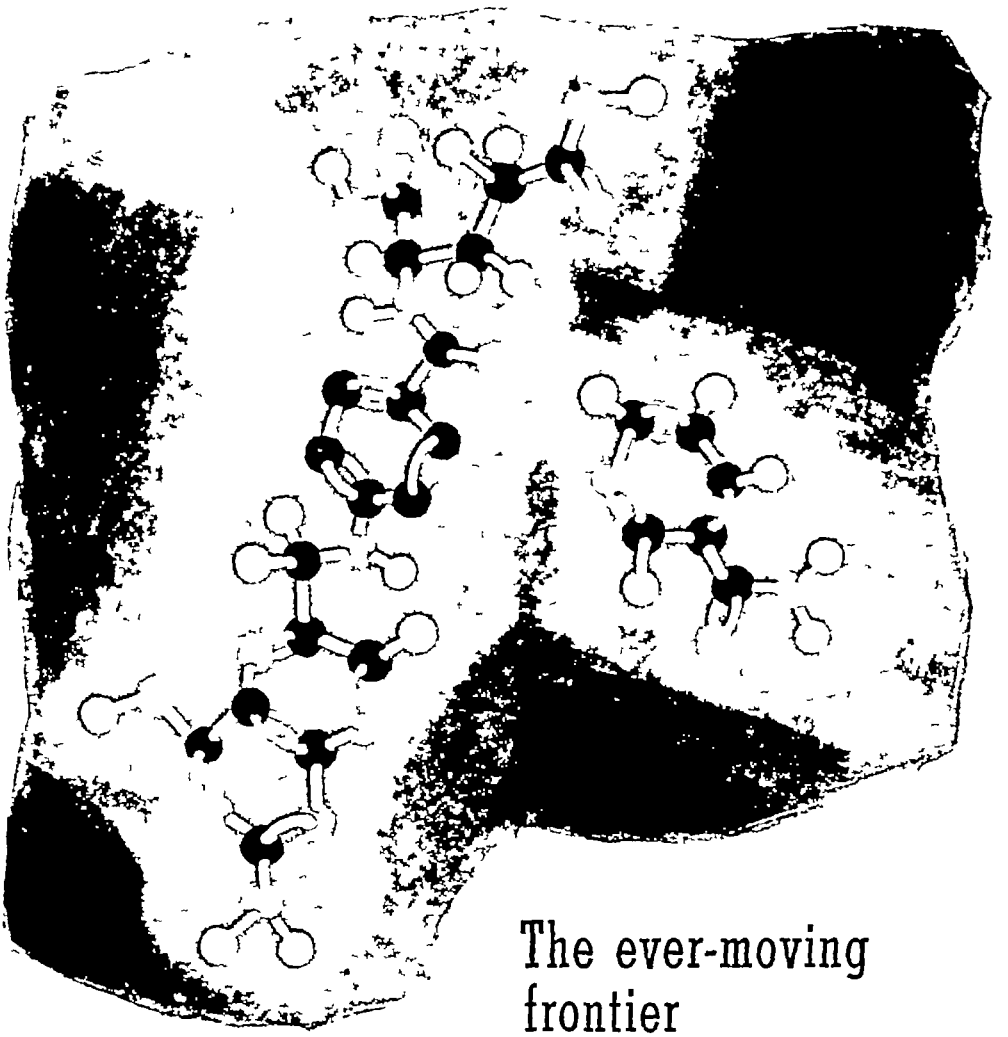
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in allergy therapy

With Thephorin, an entirely *different* antihistamine, drowsiness is minimized in the treatment of hay fever, atopic dermatitis and similar allergies Other side reactions are reduced or completely absent Because patients on Thephorin remain alert, there is less risk of drowsiness while driving or during other daily activities Furthermore, Thephorin's effectiveness has been demonstrated in more than 2,000 cases Available in 25 mg tablets and as a palatable syrup

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brand of phenindamine

'Roche'

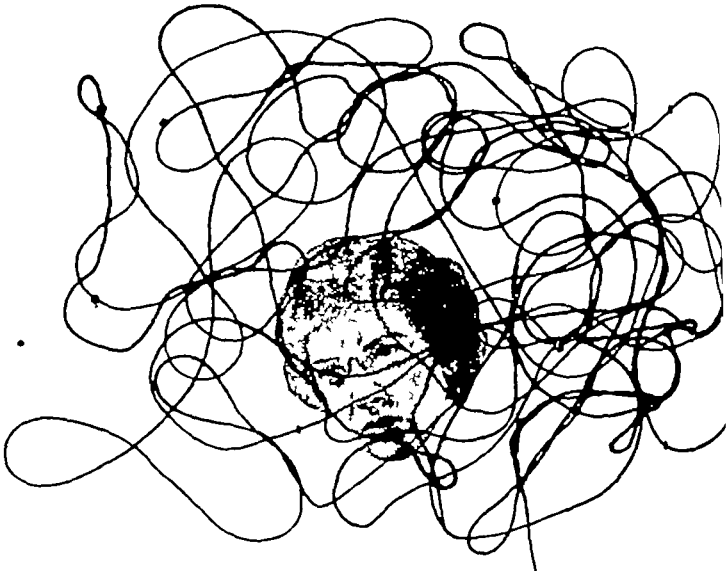


The ever-moving frontier

Research on vitamin knowledge in the field of nutrition has come a long way since the early published researches of McCollum, Mendel and Funk. The science of nutrition is no longer the stepchild of medicine, nor the poor relation of agriculture. In particular, our understanding of the need for vitamins in human nutrition has enormously increased. Vitamins constitute in the aggregate the *sine qua non* for cellular respiration, reproduction, growth and repair.

For the past 25 years, biochemists have pressed forward a continually moving frontier of scientific discovery in the field of nutrition. In recent years, *Lederle* has been in the vanguard of this movement, its investigators being well known for their achievements with folic acid, pyridoxine, biotin, the pantothenates, liver extract, and allied substances. There will be no slackening in the efforts of this organization to uncover additional aids to better health and better living.

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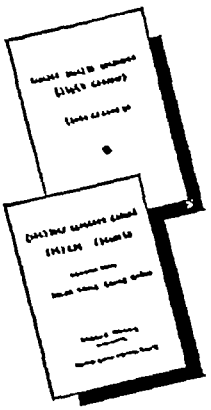
*T M Reg U S Pat Off for racemic amphetamine sulfate, S K F

INOSITOL

CSC

A REVIEW OF RECENT PUBLICATIONS OF CLINICAL INTEREST·

I



Recently published data concerning the lipotropic action of inositol in both experimental animals and human subjects, and the broad clinical implications of these findings, prompt this series to keep the physician informed on this important subject As the results of further clinical studies are published, the findings will be presented This member of the vitamin B complex appears to possess significant therapeutic potentialities, and intensive research is being conducted in many quarters to establish indications for its use

In a study of various lipotropic agents administered to 111 patients with atheromatous disease it was observed that inositol resulted in an average reduction of blood cholesterol and cholesterol esters of 19 per cent and 17 per cent respectively The patients with hypercholesterolemia manifested this drop in blood cholesterols in a period of 6 to 10 weeks The same individuals showed clinical evidence of atheromatous coronary artery disease The author points out that lipotropic agents in general "warrant further study as promising therapeutic agents "[1]

Inositol was administered to a 37 year old patient with generalized xanthomatous cutaneous lesions Collateral therapy consisted of a low fat, low cholesterol, high protein, high carbohydrate diet, and administration of choline and methionine Inositol alone or inositol and diet markedly reduced total blood lipids and also phospholipids, but cholesterol esters and total cholesterol remained high Despite these objective changes and symptomatic improvement of the patient the author warns that lipotropic activity can be properly evaluated only after prolonged study [2]

Goldstein and Rosahn have successfully employed inositol combined with choline in the treatment of patients suffering from cirrhosis of the liver in an advanced stage [3] More recently, Broun[4] reported complete recovery of a patient with advanced hepatic cirrhosis, who received daily doses of 1 0 Gm inositol, 1 Gm choline, and 2 tablets of fortified yeast Previous attempts to control ascites with choline and liver extract therapy had failed The dietary regimen was kept unchanged

INOSITOL-C S C

Inositol-C S C is supplied in 0 5 Gm capsules in bottles of 100

References

1 Herrmann G R. Some Experimental Studies in Hypercholesterolemic States Exper Med & Surg 5 149 (May Aug) 1947

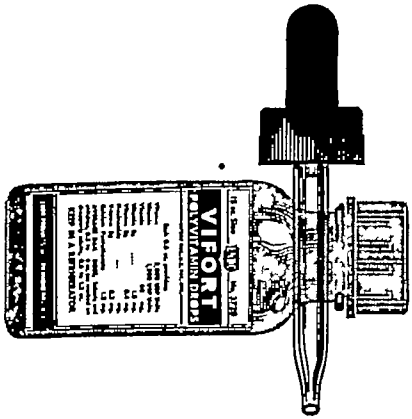
2 Gephardt M C. Xanthomatous Biliary Cirrhosis Lipid Levels While Receiving Inositol Ann. Int. Med 26 764 (May) 1947

3 Goldstein, M R , and Rosahn P D Choline and Inositol Therapy of Cirrhosis of the Liver, Connecticut M J 9 351 (May) 1945

4 Broun, G O Treatment of Hepatic Cirrhosis, Postgrad Med 4.203 (Sept.) 1948

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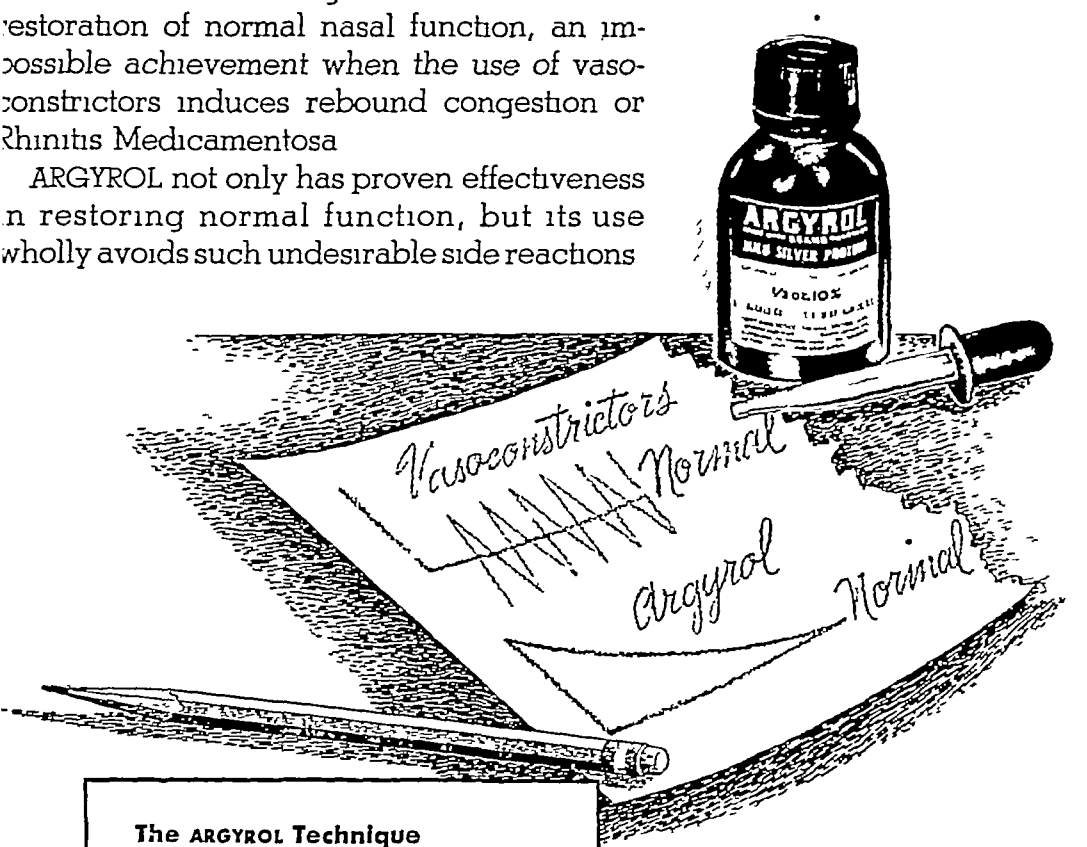
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*Meyer, K. A , and Kozoll, D D Progress in the Treatment of Carcinoma of the Stomach and Esophagus, *South Dakota J Med & Pharm* 2:39 (Feb) 1949

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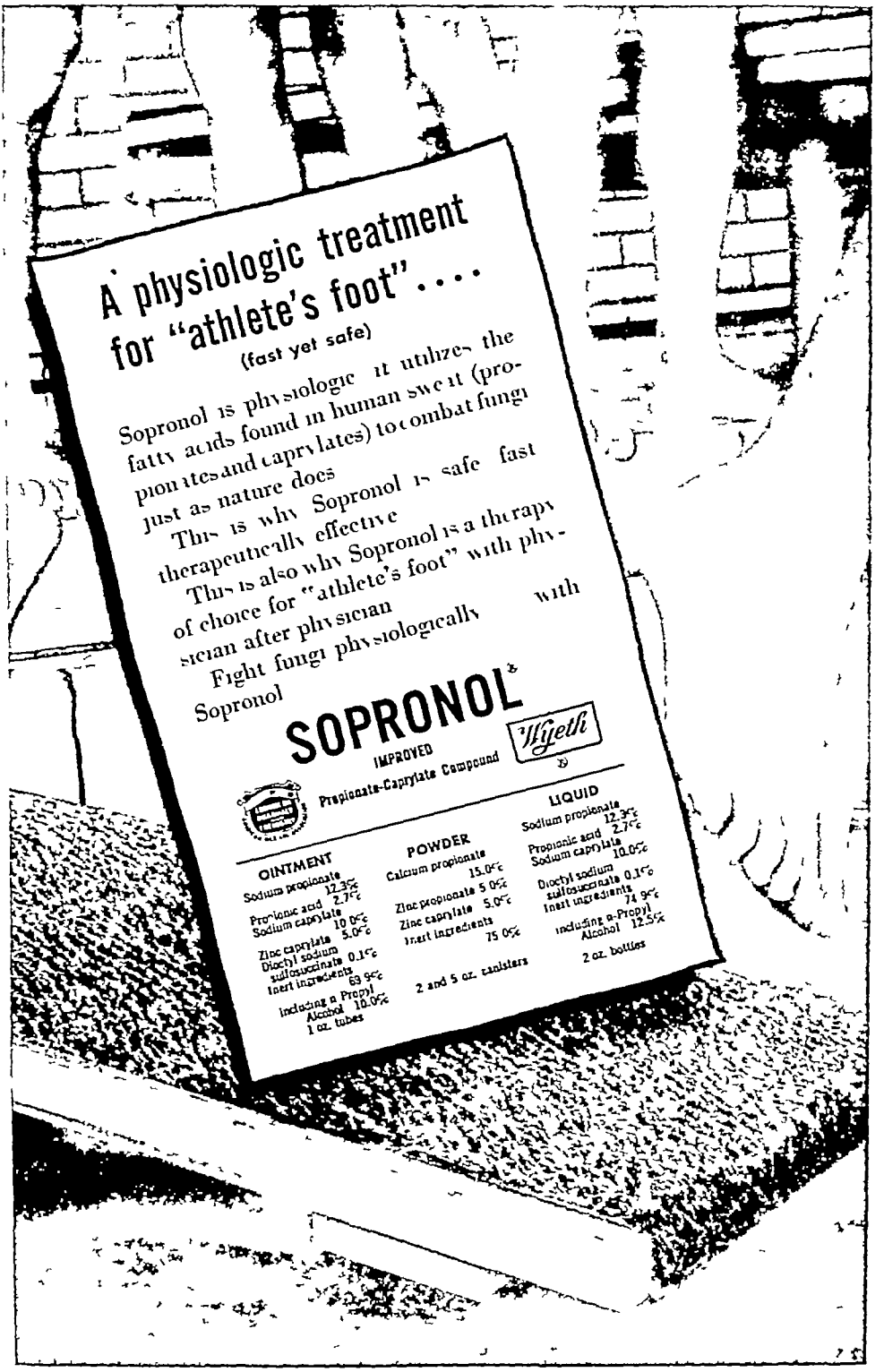
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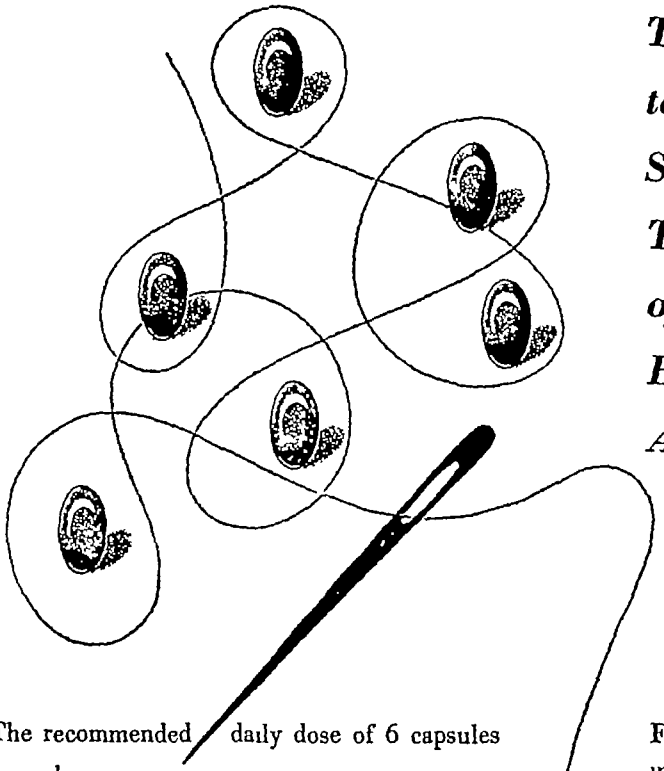
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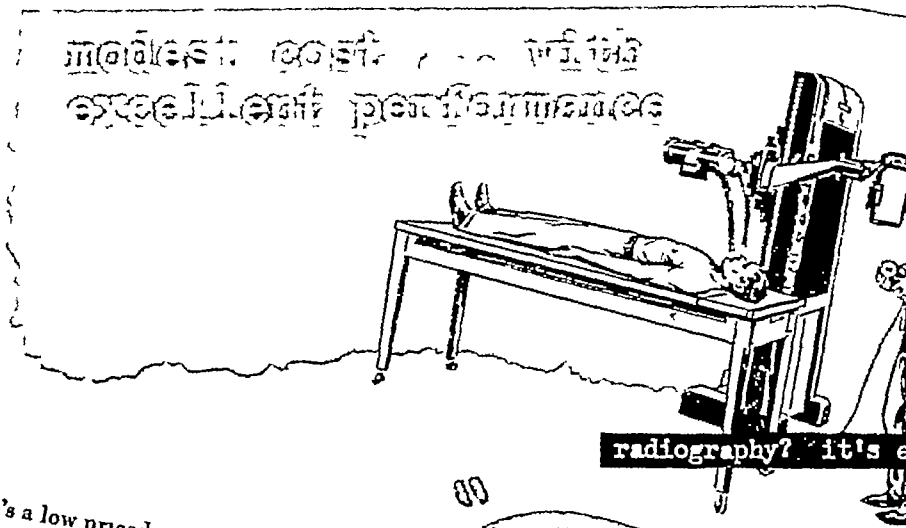
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Albrecht, F K Modern Management in Clinical Medicine, Baltimore, Williams and Wilkins Co , 1946



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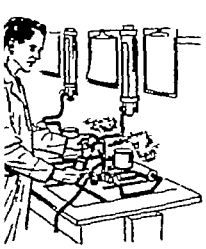
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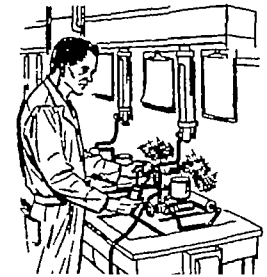


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VOLUME 49 | MAY 1, 1949 | NUMBER 9

Editorials

Medical Officers Needed

The need of the armed services for medical officers is great Secretary Forrestal, in a press conference on February 25, 1949, issued an urgent appeal for 2,200 physicians for replacements during the remainder of this year

The A M A 's Council on Emergency Medical Service has provided each state medical association with a list of all physicians under 26 years of age in that state, so that an urgent personal appeal may be made to every doctor who has not fulfilled his moral obligation to serve Says the *J A M A*

> The 8,000 physicians who were deferred from active military duty during World War II and trained in whole or in part at the expense of the government have a strong moral obligation to give one to two years to the government, replacing those who have already served patriotically for two years The American medical profession voluntarily provided over 50,000 physicians to the Army and Navy during World War II It cannot fail now to supply the demand for medical service created by the unsettled world condition Soon the ultimate choice will be made service on a voluntary basis or by compulsion [1]

The Empire State has a notable record both in the number and caliber of the physicians who have in the past and are now caring for the medical needs of the armed services It is to be devoutly hoped that this fine ideal will continue to be upheld That it will not be is to us unthinkable and out of the question To enjoy the privileges of the finest medical education provided any place in the world implies the obligation to help maintain those privileges Our young doctors know that and, we are certain, realize the fact that only by the voluntary fulfillment of those obligations can American standards and ideals be maintained and raised ever higher

Apply now for your commission as a medical officer in the armed forces of the United States, no one else can do it for you (*See special article, page 1077*)

[1] J.A.M.A. 139 650 (Mar 5) 1949

Radio Forums on National Health Insurance

The more we listen to radio forums on which the question of national compulsory health insurance is discussed pro and con, the more we are impressed by the earnestness and obvious sincerity of the protagonists and antagonists The antagonists, mostly doctors, leave their offices, hospitals or clinics, where they are normally busily occupied in producing the excellent medical service this country now enjoys, to become pleaders—special pleaders if you will—to the Congress of this Republic not to wreck an existing structure which they know works Not one doctor has claimed that it works perfectly, but all realize that it has evolved slowly and surely and that such parts of it as need improvement can be and are being perfected as rapidly as consistent with safety

Certain legislators are inclined to agree with the doctors, not because they like doctors but because they seem to respect expert opinion on medical service These legislators thus become antagonists to proposals for the imposition by law of a system of public, tax-supported and therefore government-controlled medical service They, as lawmakers, seem to appreciate with the A M A the vital truth that today "the real problem in most American homes is the tax bill, not the medical bill"

> The assertion was made in behalf of the A M A in a statement by Dr R B Robins of Camden, Arkansas, a member of the Association's house of delegates and Democratic national committeeman from Arkansas He declared
>
> "In most income classes, according to the findings of the Brookings Institution, the cost of medical care represents about 4 or 4 5 per cent of family income But the tax bill is draining away 20 to 30 per cent of earnings, even in the low and middle income groups"[1]

With equal earnestness and sincerity, proponents of national health insurance with fiery zeal proclaim its merits Mr Ewing, at Town Hall in New York on February 22, eulogized the insurance principle of spreading costs and did so with sincere conviction, using fire insurance as an example The fact that fire insurance is not health insurance, has never been compulsory nor a function of government, nor paid for by wage or salary deductions from workers' pay apparently did not in the least deter him from using the example as a compelling argument for national health insurance Other proponents, no less zealous for the blessings of the welfare state, bristle with statistically sticky proof of this and that Hospital beds, percentages, billions of dollars, construction, millions of insured, preventive medicine, benefits, fire insurance, and pay deductions roll furiously about from platforms and loudspeakers

Most of the doctors of the nation, sincere in their desire to have the public informed about the really good medical service they enjoy, have gladly contributed their twenty five dollars, assessed by the American Medical Association, in the sure conviction that the common sense of the informed man on the street will prevail The question at issue is too vital and serious to be rushed to a quick decision Radio forums of one hour or less do not permit more than fractional discussion of a subject

Radio forums should be supplemented by well documented literature widely disseminated This should reach all service clubs, women's organizations, chambers of commerce, farm bureaus, and veterans posts with their women's auxiliaries, all over the country Radio forums leave much to be desired Usually they tend to cover too much ground by too many speakers in too little time Listeners are confronted by the sound equivalent of a three- or four-ring circus By ear alone and auditory memory they are unable to retain for long the continuity of thought voiced by the speakers, especially those who enunciate rapidly and interlard their argument with statistical data Too often the listener at the conclusion of the hour agrees with Omar Khayyám who, of record, when young "did eagerly frequent doctor and Saint, and heard great argument about it and about, and evermore came out by that same door wherein I went"

We cannot urge too strongly full resort by the A M A to short, concise reference material, plainly printed and factual, and a bare minimum of radio forums

[1] New York Times February 23, 1949

The President's Page



The honor of having been your main servant during the past year has been a glorious privilege for me I have enjoyed helping to keep this great ship of the Medical Society of the State of New York on her course of important usefulness

During the past year we have heard ever-increasing threats against our treasured privileges These privileges have always been a part of our great profession—of being self-governed, self-disciplined, of maintaining high ideals, of ever seeking higher standards of medical service, of being servants to no one, except to our patients

The medical mother of us all, the A M A , realizing that this threat was of deadly intent, sent out a call to her children to rally, to give funds, to put aside from our daily work time and effort for the cause—and what is that cause? To protect our patients, the ultimate objective of our solicitude, from inferior care, and to preserve our independence

Never before has the A M A seen fit to call on us She has in the past spent herself in ever improving the doctor and his standards Her initial efforts and subsequent constant watchfulness have transformed medical education She has protected the public against quack remedies and quack doctors She has scrutinized and demanded therapeutic quality in new remedies She has published the greatest medical journal in the world, many special scientific journals, and the popular *Hygeia* She has made the medical literature of the world accessible and available She has published, and kept up to date by new editions, a great medical directory These activities of the A M A have been going on year after year and have been taken for granted by her children, just as children take for granted the indispensable work done by their mother in maintaining the home

The doctors, meanwhile, as a result of their better and often specialized education, have become increasingly busy, have formed many new scientific associations which take of their interest and allegiance, so that in recent years we have had a flood of meetings of special groups That is as it should be They are invaluable These various special meetings furnish a fine scientific nourishment, but they are not constituted to furnish anything else

Doctors of our generation have lived in an age of great economic tranquillity, as far as they are concerned We have had prestige, honor, respect, and adequate prosperity There is now, however, considerable evidence that this honor and respect are waning in this country We are beginning to realize, some of us more quickly than others, that this movement is not against us as individuals, but as a profession Irrespective of the motives behind this movement, and dismaying as it might be to our ego, nevertheless all a priori reasoning falls down before a fact The movement is on

We cannot refuse to give battle when the welfare of our patients is at stake, where our privileges and independence are at stake, and when the future of our country itself may be at stake We can best wage war when we properly marshall our forces We must have a high command, good officers, and foot soldiers full of fight and fervor Our high command is the A M A., its officers and councils (Our special societies, try as they may, are not able to do the work) Our officers are the leaders of the county and state societies, while the foot soldiers are all the doctors in the United states

It will avail not at all if we map out a great campaign, and we, the foot soldiers, decide to take a vacation from fighting Wars are won by the determination and bravery of foot soldiers I have no fear We will win this war American medicine will continue to be the glory of the world, and ever climb the stairs that lead to perfection

Leo F Simpson

ADVANCES IN PHYSICAL MEDICINE

From the Department of Rehabilitation and Physical Medicine
New York University College of Medicine
Howard A Rusk, M D , Director

Rehabilitation of the Hemiplegic

Hemiplegia following apoplexy is one of the most common of the chronic neurologic disabilities The most common general symptom of apoplexy is disturbance of consciousness The most common focal sign of apoplexy is hemiplegia or paralysis The most frequent cases of apoplexy are thrombosis, hemorrhage, and embolism Active rehabilitation in apoplexy resulting from thrombosis may begin as soon as the patient regains consciousness In hemiplegia resulting from hemorrhage, rehabilitation should be limited to bed activities for the first three weeks In hemiplegia resulting from embolism, active rehabilitation may begin as soon as the patient regains consciousness, if there are no other systemic contraindications In the selection of hemiplegic cases for rehabilitation, exclude those in which the rehabilitation cannot keep up with the pathologic processes, as in malignant hypertension, encephalomalacia, and cardiac insufficiency

In the early stages of treatment, the following procedures should be instituted to prevent deformities (1) Footboard or posterior leg splint to prevent footdrop, (2) sandbags to prevent outward rotation of the affected leg, (3) a pillow in the axilla to prevent adduction of the shoulder, and (4) quadriceps setting to maintain muscle strength All of these procedures are relatively simple and require no special equipment Their use, however, will prevent crippling anatomic deformities and hasten the rehabilitation of the patient

The next procedure indicated is the institution of pulley therapy This can be done very simply with a small pulley attached to a gooseneck pipe over the head of the bed, using the ordinary clothes line rope with a one-inch webbing for the hand loop With the stretching and passive exercise provided by pulley therapy, the range of motion of the shoulder and elbow can be increased and adhesions prevented

Pulley therapy has the advantage over the usual stretching exercises that are done passively, for the patient, knowing his own pain threshold, will proceed to fully tolerated motion much more quickly Pulley therapy can also be used to aid in the re-establishment of reciprocal motion patterns

The patient, at this stage, should be encouraged to sit erect in order to re-establish balance Speech therapy, if indicated, should be instituted In the absence of a trained speech therapist, the speech re-education can be started under medical supervision by any teacher who has had some experience in this field In the aphasic, it is well for the physician to point out to the patient and family the nature of the condition in order that the inability to use the tools of language may not be interpreted as loss or diminishing of the ability to think and reason

The next progressive stage in retraining is ambulation, which should be started by (1) The practice of balance in the standing position progressing to parallel bars, (2) the teaching of a heel and toe gait, stressing reciprocal motion to minimize clonus and to re-establish normal walking habits, and (3) a short leg brace needed in approximately half of all cases to correct foot drop All of the equipment for training in ambulation is simple and readily obtained by the general practitioner If parallel bars are not available, two kitchen chairs may be substituted

In the advanced stages of retraining, ambulation is continued with (1) Instruction in crutch walking, starting usually with the alternate four-point gait, and (2) teaching elevation, stressing climbing steps, curbs, stairs, and ramps Concurrently with training in ambulation, attention should be given to retraining in the activities of self-care and daily living

Obviously, the physician himself cannot undertake the actual administration of the retraining, but the therapist, nurse, volunteer, or even a member of the family can conduct the activities under his supervision With such a program, many of the complications usually following apoplexy can be avoided, and a great deal of time and ability salvaged

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Parenteral Nutrition, VI—Energy and Vitamin Needs

The basal energy needs of the body are met by a daily intake of 1,500 calories Patients with fever require proportionately more calories to offset the increase in metabolic rate caused by a rise in body temperature Although this daily caloric requirement can be met with parenteral glucose and protein hydrolysates for short periods, it remains difficult to maintain adequate parenteral nutrition over long periods of time The fact that fat is not yet available for parenteral feeding deprives us of a high calorie parenteral diet We must not lose sight of the fact that there is a limit to the amount of glucose and protein hydrolysates which can be given patients, without causing undue nervous fatigue from long hours of infusion or producing glycosuria and diuresis from too rapid administration Woodyatt *et al* in 1915 established a ceiling rate of injection for glucose at 0 8 Gm per kg per hour for normal people Above that rate glycosuria and diuresis occurred [1] Sansum and Wilder two years later reported that the rate of injection should be lower with patients with hyperthyroidism, chronic pancreatitis, mild diabetes, acromegaly, and diabetes insipidus, because glucose tolerance is reduced in these conditions [2] There has been suspicion that a similar decreased tolerance for sugar is present in postoperative patients [3 4] Recently, Lockhart and Elman have shown that normal people cannot metabolize glucose without glycosuria appearing when injection rates exceed 0 5 Gm per kg per hour, a rate considerably lower than the one advocated by Woodyatt They observed that the utilization of glucose increased when protein hydrolysates were added to the parenteral glucose solution The need for a high calorie parenteral solution is emphasized by these findings, because with the newly advocated rates of injection, 1 liter of 5 per cent glucose requires in the average individual (70 kg) 1 hour and 25 minutes for injection, for 1 liter of a 10 per cent solution 2 hours and 50 minutes is required Even though the total excretion of glucose in the urine was found to be low at faster rates, substantial diuresis did occur Where diuresis is indicated, rates of injection which produce glycosuria are justified Protein hydrolysate solutions should be given slowly to avoid uncomfortable side reactions

Stare *et al* have recently reported the successful use of a fat emulsion in dogs [5] Nitrogen balance and normal growth indicated utilization of a fat emulsion up to 30 per cent of the total energy requirements in growing puppies Histologic examination revealed no fat retention following long term administration of this emulsion parenterally A normocytic anemia developed, however—and a slight increase in free cholesterol and a corresponding decrease in ester cholesterol were noted in the plasma and liver Both the anemia and the cholesterol metabolic changes appear to have resulted from the phosphatide stabilizer and not from the fat We are witnessing a rapid development of the fat component of the parenteral diet It seems assured for general use in the near future

If the parenteral diet is of short duration, vitamins are not essential unless the patient was previously malnourished, in which case vitamin replacement therapy may be indicated If glucose is given parenterally for many days, addition of thiamine, niacin, and riboflavin is desirable to prevent accumulation of pyruvate In occasional cases ascorbic acid should be added to parenteral fluids in reasonable amounts Vitamin A reserves

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are usually adequate to tide over a patient for some time However, when a physician is dealing with the necessity of parenteral nutrition in patients with liver disease, vitamin A and vitamin K supplements are desirable The Council on Pharmacy and Chemistry of the American Medical Association does not accept for approval mixed vitamin preparations for parenteral use Also, the Council feels parenteral vitamin nutrition is seldom indicated [6] Surely each physician should think of the expense to his patient when he orders parenteral vitamin preparations in excess of requirements Large amounts of protein hydrolysates may be prescribed, especially in patients with malignancy of the gastrointestinal tract Rhoades *et al* have demonstrated that protein stores are lowered in these patients regardless of their food intake, and following extirpation of the malignancy, protein storage is again promptly reinstated [7] The use of modified globin from human erythrocytes has been shown to quadruple the available amount of protein over plasma alone for restoration of the protein stores in debilitated people [8] In the near future this protein solution will be generally available The use of alcohol solutions for energy requirements remains a controversial question It is common practice to calculate 8 calories per cc of alcohol administered [9] Whether the patient utilizes these calories for energy within the usual definition framework of utilizable calories remains obscure However, the parenteral use of alcohol for sedation seems established

In the recent reviews on this page of parenteral nutrition some phases of the problem were discussed at length, others considered lightly, and some neglected A few factors were emphasized because of their fundamental importance The subject of parenteral nutrition is so vast and developments are so rapid that no one article or series of articles can do it justice for long An understanding of the general principles upon which parenteral alimentation is built, however, can be of assistance to physicians in making day-to-day decisions

It seems appropriate to close the present series with a quotation from William Prout, who, in a lecture in 1831 to a medical group, said "The physician of another age will be as familiar with the operations of the animal economy as he is at present with its anatomy, I have not the least doubt and—I will venture to predict that what the knowledge of anatomy at present is to the surgeon, in conducting his operations, so will chemistry be to the physician in directing him generally, what to do and what to shun, and, in short, in enabling him to wield his remedies with a certainty and precision of which in the present state of his knowledge he has not the most distant conception "[10] Modern medicine has kept the faith of this able and heroic physician who was nearly a hundred years ahead of his time in his understanding of the value of nutrition The speed with which modern science is unravelling the intricate unknowns of body mechanisms leaves one hesitant to predict to what extent physicians of tomorrow will have edification over doctors of today The editorial board plans to keep the readers of this journal abreast of both contemporary development and future expansion of parenteral nutrition technics by occasional editorial reviews of the newer knowledge in this field

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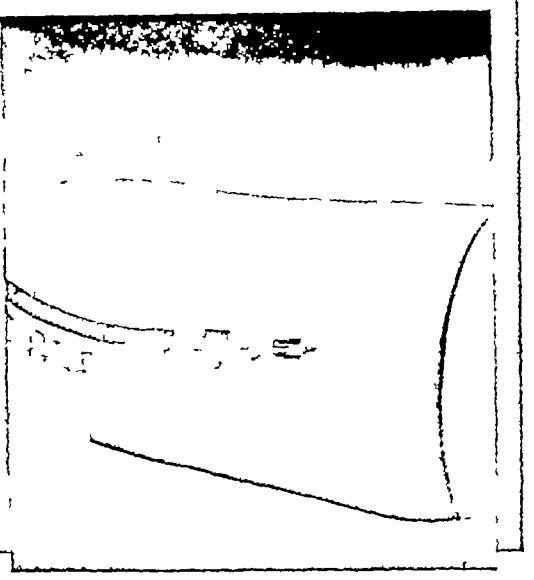
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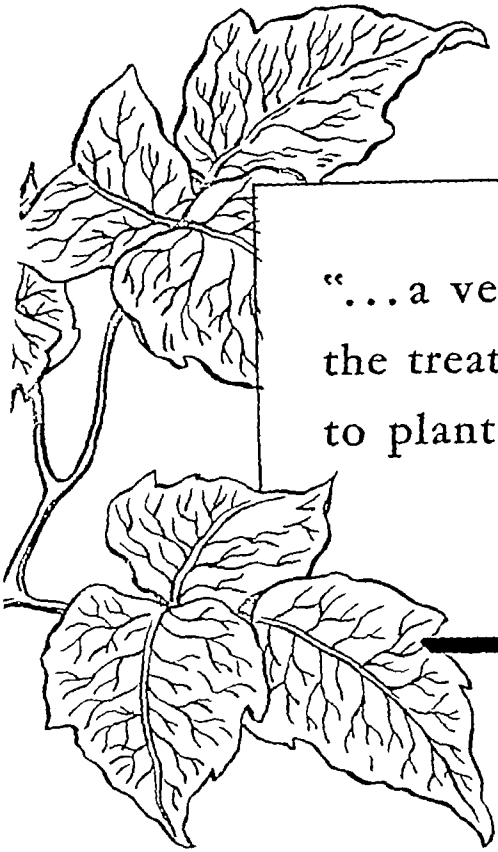
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Scientific Articles

TETRA-ETHYL-AMMONIUM CHLORIDE IN PERIPHERAL VASCULAR DISEASES AND ALLIED CONDITIONS ITS USES AND LIMITATIONS

MARTIN M FISHER, M D , New York City

(From the Medical Service of Kings County and Caledonian Hospitals)

RECENTLY a new method of blocking the autonomic ganglia by parenteral injection of the tetra-ammonium ion was reported [1–3] The physiologic and pharmacologic actions of the drug had been previously described [4 5] It is the purpose of this report to describe certain clinical applications and limitations of tetra-ethyl-ammonium chloride in peripheral vascular diseases and allied conditions, as well as to indicate its utility as a substitute for paravertebral block * The clinical value of paravertebral sympathetic ganglion block has been demonstrated [6–9]

Any treatment in peripheral vascular diseases cannot be properly evaluated without a qualitative and quantitative knowledge of the amount of vasospasm in the involved extremity It is now well established that there frequently exists with organic peripheral vascular disease an associated functional element of vasospasm This factor is mostly controlled by the sympathetic nervous system which can be affected by treatment

In the past it has been possible to diminish vasoconstriction by such procedures as paravertebral sympathetic ganglion blocks, continuous caudal anesthesia, spinal anesthesia, and local nerve blocks The action of tetra-ethyl-ammonium ion has been demonstrated on the superior cervical and stellate ganglion, as well as on the sympathetic vasoconstrictor mechanisms and the efferent vagal pathways [4] The response produced by the drug can be explained by the blocking of the autonomic ganglia, both sympathetic and parasympathetic Safety in the use of this drug in man as well as its ability to produce autonomic blockade has been evaluated It was shown that vasoconstrictor tone is necessary for the action of this drug Epinephrine or acetyl choline which acts peripheral to the autonomic ganglia is able to antagonize the effects of the tetra-ethyl-ammonium ion on the sympathetic and parasympathetic nerves

Method

Renal and stomach studies were carried out on hospital patients to note the effect of tetra-ethyl-ammonium chloride on the kidney function and gastric secretion Blood urea and urinary concentration and dilution tests were done before and after intravenous injections of the drug A Levine tube was passed to collect stomach specimens for testing the total and free acidity, as well as the volume of gastric juice in the unstimulated stomach Specimens were collected before and after injections

Effect of Intravenous Administration

After the injection a metallic taste on the tongue is usually described Then a flushing and feeling of warmth, accompanied with a sensation of pins and needles, comes over first the upper and then the lower extremities An incomplete dilatation of the pupil occurs, accompanied by temporary blurring of the vision and a sluggish reaction to light Occasionally ptosis of the upper eyelids is seen A tired, relaxed, and weak feeling is felt which is probably due to the fall in systolic and diastolic pressures This is usually noted one minute after injection Usually, there is an elevation of the heart rate to about 120 beats per minute The mouth becomes dry There is a rise in the skin temperature of the fingers and toes The blood pressure remains depressed for several minutes Usually the diastolic pressure is the first to start to rise Immediate postural hypotension may develop and persist after the return of the blood pressure to normal This may last, along with the dilatation of the pupils and increased skin temperature.

* Tetra-ethyl ammonium chloride was supplied as Etamon by the Department of Clinical Investigation, Parke Davis & Co through the courtesy of Dr E. C Von Der Heide.

It is, therefore, essential to keep the patient's head down off the pillow for three-quarters to one hour after the injection After that time the postural hypotension usually disappears

Excretion studies by precipitation of the tetra-ethyl-ammonium ion with reinecke salt, as in the determination of choline, indicate it is almost quantitatively excreted in the urine About 50 per cent of the drug can be recovered in twenty-four hours

Technic of Injection

The following technic was found eminently satisfactory, since only one case of transient syncope occurred in over 1,500 injections The technic itself is simple Prior to the injection, the patient is put into bed or on an examining table with his head off the pillow He is kept there until three-quarters of an hour after the injection (This is done to avoid the possibility of orthostatic hypotension)

The blood pressure cuff is placed on the arm above the vein to be injected The patient is reassured and put in basal condition of physical repose Blood pressure readings are taken repeatedly until at least three consecutive readings are stable, that is, a variation of not more than 4 to 6 mm of mercury systolic and 2 to 4 mm of mercury diastolic A number 25, Becton-Dickinson, 5/8-inch subcutaneous needle with a Huber point is used The solution is drawn into a sterile 5-cc syringe The blood pressure cuff which was left on the arm acts as a tourniquet It is inflated to distend the veins at the antecubital fossa

The injection into the vein is made, and blood is drawn back into the syringe to be certain that the needle is in the vein If the solution leaks into the surrounding tissues, pain will occur at the site of the injection, and occasionally fibrillary twitchings, which last for three to four hours, will be noted around the antecubital fossa No sloughs have been seen The injection is given slowly after the blood pressure cuff has been deflated, taking about thirty seconds for the first cubic centimeter The quality of the pulse and its rate are noted with the free hand, or by another observer at the other radial pulse Then the remainder of the solution is slowly injected at the rate of 1 cc per minute while the pulse is still being palpated

Usually the time to stop the injection is when the quality of the pulse changes and becomes less full Then the pressure readings are taken as soon after as possible in order to note the drops in blood pressure The quality of the pulse and its rate are also noted An ampule of epinephrine should be kept handy in case the patient develops syncope We have had only one occasion to use it in over 1,500 injections, and in that one instance we attributed it to a rapid injection.

Dosage

After observing some 582 patients in the last eighteen months, the following dosage schedule is suggested as a guide Generally, the higher the blood pressure, the smaller is the first dose (Table 1)

TABLE 1 —SUGGESTED DOSAGE FOR FIRST (INTRAVENOUS) INJECTION OF TETRA-ETHYL-AMMONIUM CHLORIDE

Control Systolic Blood Pressure (mm. of Mercury)	Number of cc.
90–140	3–4
142–160	2–3
162–170	2
172–200	1
200 and over	1/2

It has been our experience that after the first injection patients develop some degree of tolerance Therefore, it is necessary on subsequent injections to give *larger* doses to get the same block effect Lyons and his coworkers have established the fact that the maximum desirable effect is produced with 4 to 5 cc of the drug It is good clinical judgment, after noting the patient's reaction to the first injection, to increase gradually the dosage by a cubic centimeter or more each time until the maximum effect is attained We never give doses larger than 5 cc

Thrombophlebitis

Fifty-two hospital and private patients with acute superficial or deep thrombophlebitis were treated with tetra-ethyl-ammonium chloride. All of these had palpable tender veins, pain, calf tenderness, and a positive Homans sign As one would expect from experience with paravertebral block tetra-ethyl-ammonium ion produced the best results in these patients with acute phlebitis All had some degree of relief from pain in seven to ten minutes Calf tenderness was moderately relieved after deep pressure was attempted ten to thirty minutes after the injection In 26 instances one injection was sufficient to give permanent relief of pain

The elevated sedimentation rates had a tendency to drop three to five days after the first injection

The duration of the effects of relief of pain and warmth to the extremity in different individuals varied from only a few hours to permanent relief All patients showed some degree of relief of pain The edema subsided usually from three to five days after the relief of pain following bed rest and the intravenous sympathetic ganglion block.

In no instance was a pulmonary infarct noted after injection

There were many interesting case reports in

this series, but for brevity we have attempted to select those in each group which demonstrate the salient features of the action of the drug clinically Further reports will deal in detail with statistical evaluation of the clinical results

Case 1 —A twenty-five-year-old primipara in her ninth month of pregnancy was referred to us by an obstetrician after she developed an acute internal saphenous phlebitis with involvement of the superficial internal pudendal vein along the inner aspect of the thigh. After three injections of 4 cc (400 mg) weekly up to one week prior to labor, she underwent twelve hours of labor and had normal puerperium. She delivered a normal child The phlebitis had subsided two weeks prior to labor after the first injection and showed no abnormality after The sedimentation rate which had returned to normal antepartum remained normal postpartum.

Case 2 —A sixty-five-year-old man had an acute phlebitis of the left internal saphenous vein associated with bilateral varicose veins He had normal oscillometric readings His phlebitis was associated with calf tenderness and a palpable, tender vein There was streaking along the course of the vein accompanied by warmth and edema of the foot and ankle After 1 cc of tetra-ethyl-ammonium chloride intravenously, he had prompt relief of his pain. His edema subsided in three days, and he returned to work without any complications on the fourth day, despite the orders of his physician.

Six months later he developed phlebitis in the other leg (associated with four thrombotic varicose vein blowouts) surrounded by an area of cellulitis and edema. At this time he did not respond to seven daily injections of 3 cc (300 mm.) of tetra-ethyl-ammonium-chloride, dicoumarol for three weeks, and penicillin Subsequently, he had a ligation of the right saphenofemoral vein junction with good results after nine months follow-up

This patient serves as an excellent control to prove that, in the same person with the same disease, variations in the involvement of the veins require different approaches to therapy

In chronic thrombophlebitis where the symptoms and signs are present over one month, there is little element of spasm on a functional basis Tetra-ethyl-ammonium chloride in these cases gives but temporary relief of the pain and has no effect on the edema

Sudden Acute Arterial Occlusion

Thirteen hospital patients with sudden acute arterial occlusion were studied within the first twenty-four hours of their onset The sudden closure of a major artery to an extremity is catastrophic in the sense that loss of a limb or life is a possibility No diagnostic methods exist which offer absolute certainty for differentiating between embolism and thrombosis Most of these patients had auricular fibrillation with or without signs of congestive heart failure. All of these patients were in the fifth to the seventh decades of life with sclerosis of the peripheral arteries In most cases the symptoms were characterized by an onset of an abrupt attack of excruciating pain in the lower extremity This was followed by numbness, coldness, tingling, and loss of muscular power The pain had persisted despite morphine up until the time of admission when we saw these patients They were in various grades of shock with pallor and coldness to the lower extremities Mottling was noted in most instances The chief findings were lowered skin temperature, collapsed superficial veins, pallor, diminution of reflexes, and loss of sensation and muscular strength There was absence of pulsation which had been present, according to the referring physician, in some of the arteries of the involved extremity

In this group of 13, one showed rapid improvement following the use of tetra-ethyl-ammonium chloride blocks The pain was relieved, the color of the limb improved, and the skin temperature became elevated. The oscillometric readings remained unchanged The patient was given the intravenous ganglion block ($3^1/_2$ cc tetra-ethyl-ammonium chloride) every twelve hours for seven days

Of the other 12 patients with acute thromboembolic phenomena in the lower extremities, all had the same poor results with paravertebral blocks as with the intravenous sympathetic ganglion blocks When the intravenous sympathetic ganglion blocks were unsuccessful, we noted an increase in pain at the site of closure following the injection. We used this site of pain as a diagnostic aid in localizing the thrombus or embolus for the surgeon in preparation for embollectomy

Chronic Organic Occlusive Arterial Diseases

We have studied the effects of tetra-ethyl-ammonium chloride in 416 hospital and private patients with chronic organic occlusive arterial disease Of this group 12 patients had thromboangiitis obliterans, and 404 had peripheral arteriosclerosis

Thromboangiitis Obliterans —Of the group with thromboangiitis obliterans disease, six had previously been treated conservatively, three had a previous midthigh amputation, and three were untreated All 12 were treated with tetra-ethyl-ammonium chloride, and all other treatment was discontinued Those who smoked previously continued to smoke while under these observations Eight were symptom-free except for a mild amount of intermittent claudication after six months observation

One of these patients whose ulcer and pain in

his second left toe resisted previous therapy showed evidence of healing and relief of pain in three days following one injection His rest pain was controlled after a few subsequent injections, and he was discharged from the hospital with his ulcer completely healed in two weeks

Case 3—A previously untreated, thirty-six-year-old, ambulatory man with thromboangiitis obliterans had absent oscillations in his right foot and leg He had recurrent phlebitis of the left internal saphenous vein Intermittent claudication was present on walking one block Night pain had kept him awake continuously for one month so that he had suicidal tendencies After receiving 200 mg (2 cc) twice weekly for four months, there was a disappearance of his intermittent claudication, and night pain was markedly relieved The phlebitis had subsided, and there was no evidence after one year follow-up His total dose was 5 Gm. He continued to smoke during these observations

Case 4—Of interest is the thirty-four-year-old, hospitalized man who had thromboangiitis obliterans for thirteen years He had an ulcer on the second right toe with severe pain This man had no relief from morphine, Demerol, or papaverine The first three injections of 400 mg (4 cc) given daily produced about 50 per cent relief of pain Following this he submitted to a posterior tibial nerve sectioning with the same amount of relief This case was of significance to show the limitations of this drug, as well as of all other modalities in the treatment of thromboangiitis obliterans It has been our experience that if you do not get a prompt response with therapeutic doses, namely 4 to 5 cc, subsequent injections are of no further avail

Peripheral Arteriosclerosis Obliterans—Four hundred and four hospital and private patients with signs and symptoms of peripheral arteriosclerosis with or without diabetes have been studied As one would anticipate with paravertebral blocks, the least successful results were obtained with this group of patients This was particularly evident when the functional element of vasospasm was small or absent

They were in the age limit that ranged from fifty-eight to ninety-one years All showed x-ray evidence of arteriosclerosis of the extremities There was evidence of diminished circulation of the involved limb which was confirmed by oscillometric readings Many had evidence of gangrene

Those patients without gangrene had greater relief of rest pain with tetra-ethyl-ammonium chloride than with intravenous papaverine, spasmalgin, morphine, or Demerol The duration of relief varied from one to seventy-two hours

We noted that clean arteriosclerotic ulcers of the dorsum and plantar surfaces of the foot healed more readily with daily injections of tetra-ethyl-ammonium chloride only when there was relief of pain



FIG 1 Arteriosclerotic ulcers of thirty years duration in an eighty-two-year-old woman first seen in September, 1946

For example, one eighty-two-year-old woman had had eight arteriosclerotic ulcers on the dorsum of her right foot for thirty years (Fig 1) She had previously been treated with every known modality and had resigned herself to her wheelchair for the last twenty-nine years She received 350 mg of tetra-ethyl-ammonium chloride (3½ cc) twice weekly for four months, a

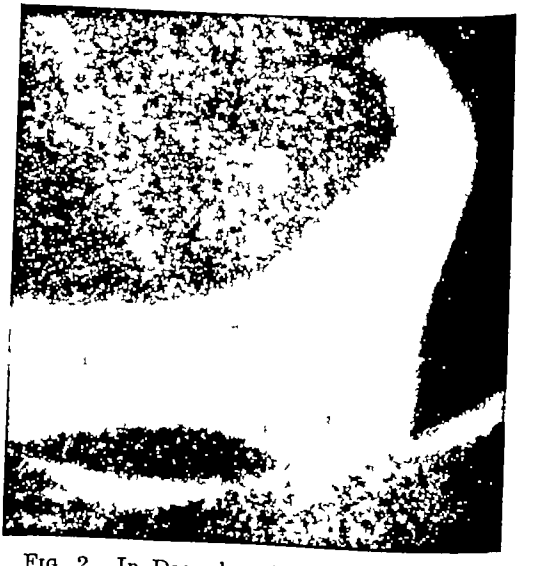


FIG 2 In December, 1946, ulcers completely healed after a four-month course of treatment with tetra-ethyl-ammonium chloride

total of 14 Gm In December, 1946, she started to walk, she wore shoes, bathed, and was free of pain The ulcers were completely healed (Fig 2) None have broken down for the eleven months since the treatment stopped

In all the arteriosclerotic ulcers that healed, we also used penicillin parenterally and tyrothricin, penicillin, or streptomycin locally to maintain wound cleanliness It is, therefore, difficult to evaluate the effect of healing ulcers with tetra-ethyl-ammonium chloride, yet we feel that healing was aided when there was relief of pain and spasm One must not conclude that the relief of pain and healing of ulceration was due to increase in circulation or any vasodilating action of the drug in these cases of arteriosclerosis Rather, the relief of pain appears to be similar in mechanism to the pain relief in causalgic states (*vide infra*)

In the diabetic arteriosclerotic cases where the wound infection could not be controlled, the results were uniformly poor

Diagnostic and Therapeutic Value in Hypertension

In this group, 30 hospitalized patients with hypertension were studied They were evaluated as to renal and vascular components Blood urea, blood creatinine, kidney function tests—namely, routine analysis, concentration tests, and urea clearance tests, were performed Eye ground studies were evaluated on all in this group Sodium amytal tests for determining the maximum drop in blood pressure were done on all patients as a control prior to the use of tetra-ethyl-ammonium chloride In this group of 30, 25 were found to have various degrees of renal involvement

The results with tetra-ethyl-ammonium chloride blocks in cases with chronic glomerulonephritis revealed little or no significant fall in blood pressure, either systolic or diastolic This observation was confirmed by the sodium amytal tests In five patients with uncomplicated essential hypertension studied with tetra-ethyl-ammonium chloride, it was found that a marked drop in blood pressure, both diastolic and systolic, occurred, similar in degree to the depressor response with the sodium amytal test

Of interest are three patients with essential hypertension who developed hypertensive encephalopathy in acute hypertensive crises They were treated with tetra-ethyl-ammonium chloride during the acute phase with dramatic results

Case 5—A M, a known hypertensive, age fifty-five, suddenly developed severe headaches, dizziness nausea, and vomiting He became semicomatose without evidence of cerebral or subdural hemorrhage His blood pressure was 280/180 Within one hour a pint of blood was withdrawn, lowering his blood pressure to 190/160, one half hour later, his blood pressure rose to 260/160 with a persistence of dizziness, headaches, nausea, and vomiting This patient seemed a candidate for an imminent cerebral accident One half cubic centimeter (50 mg) of tetra-ethyl-ammonium chloride was injected intravenously which lowered the blood pressure to a level of 160/-80 Immediately thereafter, the patient's nausea and vomiting ceased, and the headaches and dizziness disappeared The systolic blood pressure persisted below 180 mm. of mercury, which was his previous control blood pressure, as reported by his family physician He was discharged asymptomatic two weeks later but as a potential candidate for sympathectomy

Diagnostic Aid in Sympathectomy

In this group 20 hospital patients with peripheral arterial disease were studied to evaluate the possible therapeutic effect of sympathectomy Of the 20 with peripheral arterial disease who were considered as candidates for sympathectomy, 18 had advanced arteriosclerosis with gangrene The other two had thromboangiitis obliterans

Of the 18 peripheral arteriosclerotics, all were found to have a negative response to the tetra-ethyl-ammonium chloride diagnostic blocks The criteria for a negative response was based on (1) little or no increase in skin temperature, (2) little relief of rest pain or intermittent claudication, and (3) no effect upon wound healing Three of this group, despite negative responses to tetra-ethyl-ammonium chloride, were submitted to sympathectomy None showed any beneficial effects

Of the two patients with thromboangiitis obliterans selected as candidates for sympathectomy, both had a good positive response with the intravenous ganglion block Sympathectomy produced the anticipated good results

Causalgic Conditions and Allied Sympathetic Disorders

Twelve hospital patients with a diagnosis of causalgia, post-traumatic edema, or atrophy and phantom limb have been studied with tetra-ethyl-ammonium chloride Usually the choice of diagnostic terminology in these patients was difficult The injection of tetra-ethyl-ammonium chloride in these patients afforded temporary, and at times sustained, relief of pain. It also aided in establishing the diagnosis of sympathetic involvement, and lastly, it was a very effective therapeutic measure in some of these cases to help restore function In these amputees where the intravenous ganglion block gave little or no relief, usually the so-called phantom symptoms were due to an osteomyelitis at the tip of the bone or a pus pocket in the amputation flap

To those patients in this group whose syndromes followed fractures associated with atrophy or edema, the drug gave relief of pain and allowed for greater motion Likewise, following bone grafts to injured lower extremities, similar improvement was noted

Ménière's Disease

Three patients with Ménière's disease, confirmed by ear, nose, and throat consultations, have been treated with tetra-ethyl-ammonium chloride intravenously Two of these three showed marked improvement in their headaches and dizziness Further studies on a larger series of cases are needed before evaluation of this therapy in Ménière's disease can be made

Multiple Sclerosis

Based on the success in the treatment of acute thrombophlebitis with tetra-ethyl-ammonium chloride and with the recent emphasis on the vascular etiology of multiple sclerosis, we attempted the treatment of acute exacerbations This fundamental pathologic fact must be clear that the only substantial prospect of gain from specific treatment in multiple sclerosis must be in the protection from fresh relapses

Some 56 patients with multiple sclerosis are being studied These patients have had the disease from three to fifteen years and vary in their severity from mild to very severe These patients have been treated for the last twelve months While it is too early to evaluate the results in this disease, which is characterized by remissions and recurrences, some of the preliminary results in the early diagnosed and mildly involved patients are sufficiently encouraging to warrant further investigation over a long period of time on a large scale (This will be a subject of a separate paper)

Toxic Effects and Precautions

In the doses that were used in this study wherein over 1,500 injections were used, no serious toxic effects were noted In one patient with very high blood pressure who was receiving an infusion of heparin, a state of syncope following the intravenous injection was noted This was quite transitory in nature and responded quickly to 1 cc of epinephrine solution 1 1,000 intravenously In two patients, when the injection of tetra-ethyl-ammonium chloride was given during the extremely hot weather, nausea and vomiting were noted The sensation of weakness and fatigue was pronounced in these two but disappeared within thirty minutes No epinephrine had to be used in these patients

The utilization of tetra-ethyl-ammonium chloride to produce autonomic blockade as an outpatient procedure is to be encouraged with caution. During the last eighteen months, we have kept all patients in a supine position for one-half hour to forty-five minutes following the injection If, upon standing, no dizziness or weakness occurs, the postural hypotension is not marked They are allowed to walk around the treatment room for a few minutes They are instructed to lie down if any sense of weakness or dizziness is experienced It is unwise to drive a car after the injection, because of the loss of accommodation and the possibility of postural hypotension. These precautions were adequate for ambulatory treatment

It is to be emphasized that tetra-ethyl-ammonium chloride is a most powerful pharmacologic agent due to its ability to lower the blood pressure acutely It is obviously not advisable to use it in patients in any condition of shock where the blood pressure has already been depressed It is not feasible as a routine treatment for hypertension, although it will relieve the symptoms of the complications of hypertension in many instances

Discussion

Renal and gastric studies, done on the first 25 patients of this study with therapeutic doses, revealed but a slight inhibition of the peristalsis of the gastrointestinal tract In all, these minimal effects wore off in eight hours

No clinical abnormalities were noted to the skin, gastrointestinal tract, or to kidney function on prolonged use of the drug in 36 patients with multiple sclerosis treated for twelve months

Vasospasm is not an unalterable pathologic lesion but a physiologic or functional derangement which can be satisfactorily influenced by appropriate therapy The element of vasospasm is frequently of decisive importance in the treatment of peripheral vascular disease because it is the one controlled factor Ochsner and DeBakey showed that vasospasm is the predominant feature in those cases where there is little or no structural change and stressed the fact that vasospasm exists as a prominent factor in some organic vascular disease [6 7] In this latter group, the vasospasm involves the collaterals To determine the presence, absence, and extent of vasospasm is important Whenever possible, conservative measures are indicated in the treatment of peripheral vascular disease Measures for the elimination of factors which increase vasospasm should be employed, namely, relief of pain, elimination of smoking, and avoidance of extreme changes in environmental temperatures Also measures which attempt to produce vaso-

dilatation should be used, namely, alcohol, typhoid vaccine, reflex heat, oscillation bed, passive vascular exercises, etc These are usually sufficient to produce complete relief of the symptoms In the rapidly progressive case where there is a marked degree of vasospasm, more vigorous attack on the sympathetic nervous system is desirable The relief of vasoconstrictor impulses may be enough to permit return of circulation to normal This forms the rationale for sympathetic ganglion block, either paravertebral or intravenous

The advantages of the intravenous over the paravertebral ganglion block are as follows

1 It is easier to perform than paravertebral blocks With a therapeutic dose one usually gets a block effect

2 There is not the discomfort produced by multiple paravertebral needles

3 In recent postoperative cases and during the third term of pregnancy, where discomfort is produced by lying on the side, this is eliminated with intravenous ganglion block.

4. In the upper extremities, intravenous ganglion block eliminates the possibility of trauma to the pleura entailed in a novocaine stellate ganglion block.

5 The patient need not be turned who is acutely ill, thereby eliminating the fear of breaking of a thrombus in a patient with phlebitis

6 It is easy to repeat frequently

The disadvantages are that the blood pressure drop produces temporary weakness which may last from one-half to two hours Rarely, syncope occurs, which is readily controlled with epinephrine

Conclusions

1 Tetra-ethyl-ammonium chloride administered intravenously in doses varying from 50 mg (½ cc) to 500 mg (5 cc) usually produces the effects of a block of the autonomic ganglia

2 It has both therapeutic and diagnostic value as a generalized sympathetic ganglion block.

3 Five hundred and eighty-two patients have been treated with over 1,500 injections with no serious toxic effects

4. A dosage schedule is suggested which has proved to have no adverse reactions in our hands Generally, the higher the initial blood pressure reading, the smaller is the first dose

5 In none of the 582 patients treated with tetra-ethyl-ammonium chloride was a pulmonary infarct noted after treatment Careful observations were made on this score

6 There is no contraindication to its use in adults in regard to age It is not recommended in any condition of shock where the blood pressure has been suddenly depressed It is not recommended as a routine treatment for uncomplicated hypertension

7 There has been significant relief of pain in cases of acute thrombophlebitis In one half of these patients, one injection was sufficient to give permanent relief of pain

8 In acute arterial occlusive disease, the intravenous ganglion block helps to give one an index of the presence of vasospasm. When this element is present, there has been some relief of pain, and intermittent claudication has been improved When there is no element of vasospasm, the results were poor

10 As a diagnostic aid in selecting patients with essential hypertension for sympathectomy, tetra-ethyl-ammonium chloride blocks produced significant drops in blood pressure, both systolic and diastolic In comparison to the sodium amytal tests, the fall in blood pressure was equal and, in some instances, greater

11 Dramatic relief in acute hypertensive crises and hypertensive encephalopathies has been observed

12 As a diagnostic aid in selecting patients with peripheral vascular disease for sympathectomy, tetra-ethyl-ammonium chloride is of particular value

13 In causalgic conditions and allied sympathetic disorders, the intravenous ganglion block helped to relieve pain and aided in diagnosing sympathetic involvement

14 Patients with multiple sclerosis and Ménière's disease have been treated with tetra-ethyl-ammonium chloride Further studies on a large series of cases over a prolonged period of time are being undertaken before a final evaluation can be made

15 The advantages and disadvantages of the intravenous ganglion block have been discussed in relation to paravertebral blocks

44 WEST 55TH STREET

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PNEUMOCOCCAL MENINGITIS

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PRIOR to the era of chemotherapy and antibiotics, pneumococcal meningitis was an almost uniformally fatal disease Ruegsegger reported a total of 630 cases prior to 1937 with no recoveries [1] Hogg and Bradley reported a 99 per cent mortality rate for all age groups, prior to the sulfadiazine era [2] The introduction of the sulfonamide drugs brought an improvement, and Hodes *et al* treated 60 cases of pneumococcal meningitis with various types of sulfonamide drugs with a mortality rate of 58 per cent [3] Steele and Gottlieb reviewed the literature following the introduction of sulfonamide therapy and found that the mortality rate varied from 31 to 80 per cent [4]

Following the introduction of combined sulfonamide and penicillin therapy, the statistical results improved even more The most thorough review of this therapy was by Hall and others who reported on a total of 162 patients in 1946 with a mortality rate of 54 3 per cent, but in their own series of 17 cases they had a mortality rate of 23 5 per cent [5] That the mortality rate varied from year to year was noted by Levinson *et al* These authors had a mortality rate in 1945 of only 16 5 per cent, while in 1946 it was 62 5 per cent They utilized the same therapy in both years, and the causative organisms did not vary significantly They felt the mortality increase to be due to an alteration in the virulence of the organism [6]

We have reviewed all cases of pneumococcal meningitis treated in the Albany Hospital with a combined penicillin and sulfonamide regime and found an over-all mortality of 28 per cent The cases have been grouped according to their primary foci and are presented in tabulated form below

Comment

Almost all authors are in accord that pneumococcal meningitis, occurring as a complication of pneumonia, carries a serious prognosis Sweet and his coworkers noted the worst prognosis to be in those patients who had pneumonia, bacterial endocarditis, or a head injury as the primary focus or in those cases in which the patient was too critically ill on admission to give a satisfactory history [7] However, Vogel *et al* felt that the prognosis was better in those cases developing secondary to head trauma [8] Hall and others noted the higher mortality in the extremes of life along with Applebaum and Nelson, who also found a higher mortality rate in those patients with a bacteremia [5,9] They did not find any correlation between mortality and the duration of illness prior to the institution of penicillin therapy, as had been pointed out by other authors

In our series it was evident that those cases in which the primary focus was pneumonia carried a graver prognosis (Table 1) The 38 per cent mortality in pneumonia compared unfavorably with the 21 per cent in otitis media. The type of organism did not seem to bear any relation to the mortality

One factor which seemed to influence the outcome of those cases of meningitis associated with pneumonia was the presence of complications All three fatalities showed serious complications one patient apparently manifesting severe sulfonamide toxicity, a second having loculated empyema, lung abscesses, pericarditis, and acute hemorrhagic pneumonia, and the third showed a diffuse pneumonitis, cystitis, generalized arteriosclerosis, and lues (Table 1)

A second factor which appeared to be related to the outcome in our cases was the duration of disease prior to therapy In the three fatal cases which died with otitis media as the primary focus, two were moribund on entry, and one patient had apparently had the condition for a week before the initial diagnostic lumbar puncture was done (Table 2) Of the three patients who died with pneumonia as the primary focus, one was moribund on entry and died six hours later, and the second had been delirious for four days prior to his initial diagnostic lumbar puncture

Of considerable importance also in the prognosis was the dosage schedule The one fatality in the miscellaneous group was treated early in the penicillin era and received grossly inadequate dosages without intrathecal penicillin (Table 3) The necessity of giving vigorous and prolonged penicillin therapy, both intrathecally and intramuscularly, combined with prolonged sulfadiazine therapy is commented on by most authors Sweet stressed the importance of continuing the use of penicillin for a considerable period after the clinical evidences of infection had subsided [7] Waring and Smith maintained combined therapy for at least six days following the last positive spinal fluid culture At this time penicillin was stopped, but sulfonamide was continued for an additional seven to fourteen days [10] Hall and others utilized intrathecal penicillin

TABLE 1.—PNEUMONIA AS THE PRIMARY FOCUS IN EIGHT CASES (THREE DEATHS—38 PER CENT MORTALITY)

	Age	Penicillin: Intramuscular (Days)	Penicillin: Intrathecal (Days)	Types of Pneumococcus: Sulfonamide (Days)	Types of Pneumococcus: Cerebrospinal Fluid	Blood Culture	Remarks
Fatalities	60	6	5	6	4	Not done	Developed severe icterus acute glomerulonephritis uremia and bullous dermatitis ? sulfa toxicity
	68	40	30	40	2	2	Entered with pneumonia was delirious for 4 days prior to initial lumbar puncture Had 2 complete neurologic remissions. Necropsy showed loculated empyema lung abscesses pericarditis, and acute hemorrhagic pneumonia.
	73	1	1	1	6	Contamination	Moribund on entry no history necropsy showed diffuse pneumonitis cystitis, generalized arteriosclerosis 4+ Wassermann. Died 6 hours after entry
Recoveries	57	23	12	23	7	7	Meningitis cleared by 7th day complication of pleurisy and genitourinary infection prolonged stay to 6 weeks.
	2 months	9	2	10	7	7	Rapid and complete recovery home on 26th day
	7 months	13	5	4	14	14	Rapid and complete recovery home on 14th day
	64	12	6	15	14	Negative	Rapid and complete recovery home on the 19th day
	68	13	3	8	8	8	Rapid neurologic recovery gastrointestinal investigation prolonged stay to 35 days

until the spinal fluid was sterile or no longer cloudy or until the sugar values had risen Intramuscular penicillin was continued until the temperature was normal for forty-eight hours and the blood cultures were sterile, sulfonamide therapy was then kept up for at least one week after all signs of the infection had abated Harford and his group commented on the importance of continuing treatment for some time after the signs of meningitis had subsided, reporting relapses in three of their nine cases [11] They felt that penicillin treatment should be continued for at least a week after the manifestations of meningitis had subsided Coleman remarked on the necessity

TABLE 2.—OTITIS MEDIA AS THE PRIMARY FOCUS IN 14 CASES (THREE DEATHS—21 PER CENT MORTALITY)

	Age	Penicillin: Intramuscular (Days)	Penicillin: Intrathecal (Days)	Types of Pneumococcus: Sulfonamide (Days)	Types of Pneumococcus: Cerebrospinal Fluid	Blood Culture	Operation	Remarks
Fatalities	44	1	1	0	1	1	None	Moribund 4-hour hospital stay
	48	1	1	6	3	3	None	Moribund on entry 22 hours in hospital
	18 days	15	1	17	1	Not done	None	No myringotomy Convulsed for one week prior to death. Initial lumbar puncture and diagnosis made 1 day prior to death
Recoveries	49	22	14	8	8	8	Radical mastoidectomy	Slow recovery with neurologic residua, discharge after 6 weeks
	65	16	7	28	4	Negative	Radical mastoidectomy	Rapid recovery of meningitis but complicated by cystitis pneumonia, laryngeal edema and renal shutdown Discharged cured in 2 months
	15 months	22	5	16	22	Negative	Radical mastoidectomy	Slow but complete recovery Discharged on 73rd day
	51	35	2	6	8	8	Radical mastoidectomy	Slow but complete recovery Discharged on 30th day
	9 months	18	5	11	14	14	Radical mastoidectomy	Complete recovery Discharged on 24th day
	11	10	11	8	3	Negative	Radical mastoidectomy	Complete recovery of neurologic manifestations Slow wound healing Discharged after 7 weeks.
	4	9	7	8	4	Negative	None	Gradual recovery home on 31st day
	3	4	12	12	23	Negative	None	Rapid recovery home on 17th day
	57	10	9	6	25	Not done	Radical mastoidectomy	Rapid neurologic recovery Slow wound healing Home on 5th day
	56	13	1	20	14	Negative	Radical mastoidectomy	Rapid recovery home on 20th day
	6 months	13	6	10	17	17	Myringotomy	Rapid recovery home on 22nd day

TABLE 3.—Miscellaneous Primary Foci in Three Cases (One Death—33 Per Cent Mortality)

Fatality—Recoveries	Age	Penicillin: Intramuscular (Days)	Penicillin: Intrathecal (Days)	Sulfonamide (Days)	Types of Pneumococcus: Cerebrospinal Fluid	Types of Pneumococcus: Blood Culture	Causes	Remarks
	77	4	0	4	15	Not done	Multiple sinus operation	Died 6 days after onset of neurologic symptoms. Dosage of penicillin inadequate.
	49	28	10	18	8	8	Unknown	Meningitis cleared 4th day. Neurologic residua on discharge 2 months later, entirely gone 3 years later
	25	20	4	5	7	Not done	Cerebrospinal fluid fistula	Ethmoid fistula closed at operation and complete recovery, home on 21st day

of maintaining high levels of sulfadiazine during the combined therapy and attempted to attain a level between 20 to 25 mg per cent daily [12] Most authors are in accord with him that the daily dosage of intrathecal penicillin need not be more than 10,000 units

The importance of operative intervention on those cases with otitis media and mastoiditis is noted by most authors [5 9 11] Applebaum and Nelson cited seven cases in which a mastoidectomy resulted in striking improvement after failure to respond to penicillin therapy [9] Waring and Smith, however, minimized the importance of operative removals of primary foci [10]

Our experience would indicate the necessity for early operation None of the three cases which died with otitis media as the primary focus was operated on, whereas only two of the 11 cases who survived did not have some form of operation, eight having radical mastectomies and one a myringotomy (Table 2)

Summary

Twenty-five cases of pneumococcal meningitis with an over-all case mortality of 28 per cent are reported All patients received combined intramuscular penicillin and sulfadiazine therapy and, with the exception of one case, intrathecal penicillin The mortality of eight cases with pneumonia as the primary focus was 38 per cent, the mortality of 14 cases with otitis media as the primary focus was 21 per cent, and the mortality for three cases with other foci was 33 per cent

From a review of the literature and from a survey of our own cases, it would seem that adequate therapy for pneumococcal meningitis would include the following daily intrathecal penicillin injections of 10,000 units until the spinal fluid is sterile, intramuscular penicillin for at least three days after the temperature is normal, and sulfonamide therapy for at least a week after all signs of infection had subsided The importance of early operative removal of primary foci is stressed

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POLL OF SMALL BUSINESS, INC

The National Federation of Small Business, Inc has just completed tabulation of a vote for or against compulsory sickness insurance among its 136,000 members

The vote or mandate, as the federation calls it, is as follows

For Socialized Medicine	9%
Against Socialized Medicine	89%
No opinion	2%

The federation mailed a questionnaire to every member The marked ballot was sent to a teller appointed in each congressional district The teller in turn notified the congressman in each respective district of the vote and then each teller sent his total to the federation's headquarters where all the votes were tallied The headquarters office notified all of the congressmen of the vote result —*Secretary's Letter, A.M.A , March 14, 1949*

A SURVEY OF 723 CASES OF CHOLECYSTITIS AND CHOLELITHIASIS

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THIS summary is based on 723 consecutive cases of biliary tract disease which were subjected to operation The purpose in analyzing this group is to determine the incidence of the various types of gallbladder pathology, the procedures which were used in dealing with them, and the results obtained The series is unique in that all cases were private patients operated on by the senior author The cases were arbitrarily divided into groups based upon the pathology in the gallbladder

Acute Cholecystitis

The diagnosis of acute cholecystitis cannot be based either on the clinical picture or on the gross operative findings Frequently, in some patients who are acutely ill and in others in whom exploration discloses an apparently acute inflammatory process, the pathologic report of the excised gallbladder does not confirm the clinical impression It was decided, therefore, that the classification of cases should be determined by the pathologist's report With this criterion, there were 88 cases of acute cholecystitis in this series The age range was from thirty to seventy-nine years, the disease being largely confined to middle life The sex incidence is of some interest, there being 50 men (57 per cent) and 38 women (43 per cent) in this group This is rather surprising since gallbladder disease is generally acknowledged to be about twice as prevalent in women as in men. This preponderance of women is demonstrated by the cases of chronic cholecystitis which will be discussed subsequently, but in this series of acute cases the men predominated The reason for this may be the greater frequency of heavy physical activity among men. Trauma may lead to the impaction of a stone in the ampulla with a resulting hydrops

In analyzing the history of these cases of acute cholecystitis it was found that 22, or exactly one fourth of the group, were experiencing their first attack of gallbladder disease In other words, 25 per cent of these patients were not aware that they had an infection of the biliary tract until they were beset with an acute attack of cholecystitis Since in the great majority of these patients stones were present in the gallbladder at the time of operation and since calculosis must have been present for an indefinite period of time preceding the attack, it follows that in these patients the biliary calculi did not cause any symptoms Silent stones are not innocent stones and cannot be handled with complacence At any time a stone may migrate and become impacted in the neck of the gallbladder, precipitating an acute hydrops with all its serious implications The presence of stones in the gallbladder must be regarded as visible evidence of disease in an organ which should usually be extirpated

Sixty-six cases in this group (75 per cent of the total) had previous symptoms of gallbladder disease before the onset of the acute attack requiring operative interference Obviously, this large group of patients neglected the signs and symptoms of a diseased gallbladder which could have been removed during an interval phase with comparative ease and safety, rather than during an acute attack with its increased hazards

In the management of acute cholecystitis, no hard and fast rules were followed, and each case was treated as an individual problem Patients were hospitalized promptly, but operation was not performed with the same degree of urgency as in acute appendicitis It was considered most important to correct dehydration, electrolyte loss, and azotemia, as well as to replenish liver glycogen. During this time, anywhere from six to twenty-four hours, the patient's clinical course was carefully observed, especially for the occurrence of chills and the presence of diabetes Special attention was given to the white blood cell count, the temperature, and an evaluation of the abdominal findings If the clinical impression seemed to confirm a progression of the disease, if chills and high fever occurred, especially in diabetics, then operation was performed as soon as the patient's physical condition was deemed satisfactory Certainly the removal of an acutely inflamed gallbladder eliminates the incidence of perforation, biliary peritonitis, and portal pylephlebitis However, if the clinical picture showed definite regression, then careful observation was continued, for it was found that many of these cases would subside spontaneously so that cholecystectomy could be deferred for a later interval procedure Chemotherapy is considered to have little place in the treatment of acute cholecystitis and was not used unless there was another coexisting indication

It should be emphasized here that the phrase, "acute cholecystitis," is a generic term which covers inflammatory processes of varying degrees of severity It does not include many gallbladders which were removed during an acute clinical attack or those which appeared to be thickened and mildly inflamed at the time of operation but in which no microscopic evidence of acute inflam-

TABLE 3.—Miscellaneous Primary Foci in Three Cases (One Death—33 Per Cent Mortality)

Fatality	Age	Penicillin: Intramuscular (Days)	Penicillin: Intrathecal (Days)	Sulfonamide (Days)	Types of Pneumococcus: Cerebrospinal Fluid	Types of Pneumococcus: Blood Culture	Causes	Remarks
Recovered	77	4	0	4	15	Not done	Multiple sinus operation	Died 6 days after onset of neurologic symptoms. Dosage of penicillin inadequate
	40	28	10	18	8	8	Unknown	Meningitis cleared 4th day. Neurologic residua on discharge 2 months later, entirely gone 3 years later
	25	20	4	5	7	Not done	Cerebrospinal fluid fistula	Ethmoid fistula closed at operation and complete recovery home on 21st day

of maintaining high levels of sulfadiazine during the combined therapy and attempted to attain a level between 20 to 25 mg. per cent daily.[12] Most authors are in accord with him that the daily dosage of intrathecal penicillin need not be more than 10,000 units.

The importance of operative intervention on those cases with otitis media and mastoiditis is noted by most authors.[5,9,11] Applebaum and Nelson cited seven cases in which a mastoidectomy resulted in striking improvement after failure to respond to penicillin therapy.[9] Waring and Smith, however, minimized the importance of operative removals of primary foci.[10]

Our experience would indicate the necessity for early operation. None of the three cases which died with otitis media as the primary focus was operated on, whereas only two of the 11 cases who survived did not have some form of operation, eight having radical mastectomies and one a myringotomy (Table 2).

Summary

Twenty-five cases of pneumococcal meningitis with an over-all case mortality of 28 per cent are reported. All patients received combined intramuscular penicillin and sulfadiazine therapy and, with the exception of one case, intrathecal penicillin. The mortality of eight cases with pneumonia as the primary focus was 38 per cent, the mortality of 14 cases with otitis media as the primary focus was 21 per cent, and the mortality for three cases with other foci was 33 per cent.

From a review of the literature and from a survey of our own cases, it would seem that adequate therapy for pneumococcal meningitis would include the following: daily intrathecal penicillin injections of 10,000 units until the spinal fluid is sterile, intramuscular penicillin for at least three days after the temperature is normal, and sulfonamide therapy for at least a week after all signs of infection had subsided. The importance of early operative removal of primary foci is stressed.

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POLL OF SMALL BUSINESS, INC

The National Federation of Small Business, Inc. has just completed tabulation of a vote for or against compulsory sickness insurance among its 136,000 members.

The vote or mandate, as the federation calls it, is as follows:

For Socialized Medicine	9%
Against Socialized Medicine	89%
No opinion	2%

The federation mailed a questionnaire to every member. The marked ballot was sent to a teller appointed in each congressional district. The teller in turn notified the congressman in each respective district of the vote and then each teller sent his total to the federation's headquarters where all the votes were tallied. The headquarters office notified all of the congressmen of the vote result.—*Secretary's Letter, A.M.A., March 14, 1949.*

precipitated especially by fatty foods In the absence of colic, one is hesitant to subject a patient to surgery unless stones or a nonvisualizing gallbladder can be demonstrated by x-ray The results of cholecystectomy for noncalculous cholecystitis are notoriously poor, and one should be quite hesitant to advise operation if indigestion is the only symptom and cholecystography reveals a functioning gallbladder All patients, prior to operation, were subjected to cholecystographic studies, and only those who revealed either a nonvisualization of the gallbladder or the presence of stones were explored

The preoperative preparation of patients for biliary tract surgery depends upon their clinical status In the usual elective cases the x-rays and medical evaluation are done before admission. Electrocardiographic tracings are made in elderly patients, and a urea nitrogen determination is usually done If the history or clinical findings suggest a poor nutritional state, the total proteins of the blood are determined, and corrective measures taken if necessary Obese patients are advised to reduce before submitting to surgery, to avoid the high incidence of postoperative complications which are associated with obesity Routine blood counts and urinalyses are performed in the hospital preoperatively

In patients with jaundice certain liver function tests are done These usually consist of the cephalin flocculation, alkaline phosphatase, Van den Bergh, cholesterol esters, and the prothrombin level Stool and urine are examined for the presence of bile derivatives Injections of glucose and amino acids, along with vitamin B complex, vitamin C, and vitamin K are given parenterally for several days The blood grouping and Rh are determined, and transfusions are given as indicated

It is a routine on our service to introduce a Levin tube into the stomach prior to any laparotomy This prevents postoperative nausea, vomiting, and distention and is an important factor favoring a smooth convalescence

All operations on the biliary tract are performed under spinal anesthesia unless there is some contraindication There is nothing which facilitates exploration so much as the marked relaxation and freedom from respiratory movement which spinal affords In apprehensive patients, intravenous sodium pentothal is sometimes used as a supplementary agent unless jaundice is present In those occasional cases in which general anesthesia is used, curare has been found of great aid in providing adequate relaxation

Cholecystectomy with drainage, with or without choledochostomy is the procedure of choice in chronic cholecystitis and was performed in 99 per cent of these patients In only five instances was cholecystostomy performed and all of these patients were over seventy years of age and in poor physical condition Four of these five required choledochostomy as well A surgeon must have an excellent excuse for not removing a diseased gallbladder, and cholecystostomy should be reserved for only a very few poor risk cases

Retrograde cholecystectomy in our hands is a simpler and safer procedure than beginning the dissection of the gallbladder at the ampulla The opponents of this procedure cite as a disadvantage the fact that the field is obscured by oozing from the liver bed during retrograde removal This is not encountered if the dissection is done in the proper cleavage plane Besides, any bleeding from the liver bed is easily controlled by gauze held in place by a retractor It is significant that most surgeons agree that difficult cholecystectomies, such as one encounters with acute infections of the gallbladder, should be done from the fundus downwards If this method is preferred for difficult situations, it would seem that it should be most satisfactory for the routine cases We feel that the common and hepatic ducts can be visualized with greater safety by this method, and it has proved eminently satisfactory in this series of cases Drainage is employed routinely after every cholecystectomy by placing a Penrose drain in Morison's pouch

For a number of years, early ambulation has been practiced Patients are allowed in a chair the day following operation They become ambulatory in rapidly progressive stages and can usually walk to the bathroom in two or three days It is difficult to assess the role of this program in the reduction of postoperative complications such as thrombosis and pneumonia However, there is no doubt that early ambulation greatly shortens the period of convalescence, promotes appetite and muscular tone, and leads to a general feeling of well-being The average patient following cholecystectomy is allowed home on the eighth or ninth day

In many cases additional procedures were done incidental to cholecystectomy Prophylactic appendectomy was performed through the same incision whenever it was possible to deliver the cecum and when the case was uncomplicated. In obese patients, or following a difficult cholecystectomy, no attempt was made to remove the appendix. In three patients in whom a subtotal gastrectomy was performed, cholecystectomy was done as an incidental procedure In one case the gallbladder had to be removed because of firm inflammatory adherence to an active duodenal ulcer In the other two cases, the subtotal

matory changes were reported It is well known that contents of a gallbladder which are often considered purulent are, in reality, "calcium milk" or inspissated bile, mucus, and cholesterol crystals In this group of 88 acute cases confirmed pathologically, there was a high proportion of very severe infections There were 15 cases of frank gangrene of the gallbladder, and in this group one patient presented an acute pancreatitis with fat necrosis, another had a pericholecystic abscess, and a third had a free perforation with bile peritonitis There were four other cases of pericholecystic abscess There were three cases of true empyema and one of marked ulcerative inflammation Thus there was a total of 23 cases in which the infection in the gallbladder could be termed "very severe"

Cholecystectomy was the procedure of choice for acute cholecystitis, being performed in 78 of the 88 cases In the other ten patients, cholecystostomy was done These were poor risk patients, in the older age group and acutely ill Several had associated disease such as diabetes, hypertensive cardiovascular disease, and coronary sclerosis Cholecystostomy was only done as a simple expeditious procedure to provide drainage of acute infection and when it was feared that the life of the patient would be seriously jeopardized by the more radical procedure of cholecystectomy Cholecystostomy is never the procedure of choice for acute cholecystitis It is to be employed as a life-saving measure in selected cases

Stones were found in 79 cases (90 per cent), and in nine cases (10 per cent) there were no calculi It is felt that many of these acute noncalculous inflammations are the result of an activated pancreatic reflux [1]

Six patients in this group of 88 had a history of previous jaundice Five other patients were actually icteric at the time of operation In these 11 cases the choledochus was explored in only one, because, in addition to being jaundiced, a dilated common duct was found at the time of operation However, no stone was found in this duct

In the six patients with a history of jaundice and in the four other patients who were actually jaundiced at operation, the common duct was not explored A history of jaundice is not considered a reliable indication for exploration unless the jaundice can be confirmed by a medical witness Patients are often very vague about the color of their urine or skin, and they are inclined to give false positive answers in response to leading questions We do not feel that exploration of a common duct is an innocuous procedure Choledochotomy may present technical difficulties and is often accompanied by postoperative complications which increase the period of convalescence. In those patients who were actually jaundiced at the time of operation, the icterus was usually mild and transient We believe that it is usually due either to an inflammatory edema around the common duct, to actual cholangitis, or to reflex spasm of the sphincter of Oddi For this reason it is felt that the findings at operation should determine the indication for common duct exploration If the duct is of normal caliber, and no stones can be palpated within it and if the cystic duct is narrow, then there can be little reason for opening the common duct When an acute inflammatory process is present in the gallbladder and the common duct appears normal, then it becomes extremely likely that a low-grade jaundice is due to causes other than intraductal lithiasis Of the ten patients with a history of jaundice or actual jaundice whose common ducts were not explored, only one patient (a woman aged seventy-nine) had subsequent recurrent colic Two years later she had a secondary operation, at which time stones were removed from her common duct The other nine patients have remained well This substantiates the contention that jaundice alone is not a reliable indication for choledochotomy

The postoperative complications encountered were wound infection in two, dihiscence in two, subphrenic abscess in one, pneumonia in one, and phlebitis in one There was one death in this group (a mortality rate of 1 1 per cent) This occurred in a patient who eviscerated on the first postoperative day and succumbed to a pneumonia two days later

Chronic Cholecystitis

There were 568 cases of chronic cholecystitis in this series Women outnumbered men more than two to one The patients were from all decades between the second and eighth, with the largest number being in the age group forty to forty-nine This is in conformity with the generally recognized predominance of biliary disease in middle-aged women

The history of these patients was analyzed for the incidence of pain, dyspepsia, and jaundice Pain was by far the most important complaint, occurring in 508 cases, or 89 per cent of the total However, the type of pain was variable In some it was characterized by definite attacks of acute colic, in others it was a chronic ache of varying intensity and prone to exacerbations after dietary indiscretions Most of these patients who had pain also complained of some degree of indigestion. There were 60 patients (11 per cent) whose primary complaint was indigestion without pain Their symptoms were marked by bloating and belching, with epigastric distress and nausea

Secondary Common Duct Operations

Common duct strictures and reconstructions are not included in this discussion There were 19 common duct explorations in patients who had previous surgery confined solely to the gallbladder Sixteen of these had had a cholecystectomy and three a cholecystostomy performed at other hospitals Exploration revealed choledochal stones in ten cases In one patient there was evidence of chronic pancreatitis In another patient the common duct appeared to be normal

There were seven instances in which the common duct was dilated and stones were not found We feel that this group of cases represents the end result either of a recurrent spasm of the sphincter mechanism or a stenosis of the papilla due to inflammation or hypertrophy of its musculature In six of these patients, as well as in two in whom common duct stones were found, endocholedochal sphincterotomy was performed In the majority of cases the symptoms were relieved [2]

There were six patients who had had previous common duct explorations in addition to cholecystectomy elsewhere The presenting symptoms in four of these patients were colic and jaundice, in another jaundice alone, and in the sixth fever and dyspepsia At operation a stone was found in the common duct in four patients and a gallbladder stump and dilated duct in a fifth One patient had only a dilated duct without stones, and in this case a sphincterotomy was performed It is to be noted that most of the cases of biliary dyskinesia are due to stones It is highly probable that these stones were missed at the initial operation, although calculi may form primarily in the common bile duct One can be sure that if even a minute amount of calcareous material is left in the duct, it can act as a nidus for further precipitation

There were no deaths in these 25 cases of secondary common duct explorations

Carcinoma of the Gallbladder

A number of tumors of the gallbladder were encountered in this series There were eight cases of carcinoma, seven of which had cholelithiasis, three cases of benign papilloma, and one fibroma Carcinoma of the gallbladder is not a rare disease and is almost invariably associated with stones in the gallbladder Since the prognosis in carcinoma of the gallbladder is uniformly bad and since the incidence in this series (1 per cent) is actually higher than the mortality rate, one is justified in removing calculous gallbladders if for no other reason than as a prophylaxis against cancer

One case of carcinoma of the hepatic duct and another carcinoma of the ampulla of Vater were encountered in this series

Summary

1 Seven hundred twenty-three consecutive cases of biliary tract disease are reviewed

2 Eighty-eight cases of acute cholecystitis were managed on an individualized basis Cholecystectomy was performed in a great majority of cases, cholecystostomy being reserved for a few critically ill patients Transient jaundice associated with acute cholecystitis does not usually require common duct exploration

3 Among 568 cases of chronic cholecystitis, 94 per cent had stones Cholecystectomy was performed in 99 per cent of the cases The common duct was explored in 7 per cent, and stones were found in 71 per cent of those explored

4 Preoperative preparation, anesthesia, operative technic, and postoperative complications are discussed

5 Findings in secondary common duct explorations are presented

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PENICILLIN IN VENEREAL DISEASE CONTROL

Cases of early syphilis are being treated at the United States Marine Hospital, Staten Island, with as little as forty-five cents worth of penicillin This was announced recently by Dr R C Arnold, associate director of the Venereal Disease Control Research Laboratory of the U S Public Health Service, at the annual conference of the New York Tuberculosis and Health Association at the Hotel Statler

The small penicillin dosage of 300,000 units, or one cubic centimeter, is given in a single injection into a muscle, Dr Arnold said. He added that even this small amount of the antibiotic drug would cost many more times his 45-cent figure if bought at the corner drug store, the price to the hospital being at U.S. Government wholesale rates

"Even then the small dosage is strictly experimental," Dr Arnold said "We recommend intramuscular injections of from two to three times that amount"

Dr Arnold said that the single injection method used at the Marine Hospital cures syphilis in 72 hours If gonorrhea is present the one injection kills that disease at the same time

The incidence of both syphilis and gonorrhea, Dr Arnold said, has dropped in a spectacular manner since the end of the war In the country as a whole the decrease for syphilis has been about 22 per cent, with a drop of some 40 per cent being recorded in the larger cities This decrease he attributed to a "settling of the population' and to the advance of penicillin therapy

gastrectomy was comparatively simple, and since stones were present in the gallbladder, it was felt that cholecystectomy could be done without additional hazard These complementary procedures did not add to the mortality or increase the morbidity

In this series of 568 cases of chronic gallbladder disease there was a history of jaundice in 48 patients, and jaundice was actually present in 23 patients at the time of operation A comparison was made of the findings and procedures in those cases which had only a history of icterus and in those which actually presented clinical evidence of jaundice at the time of operation

We have already given our indications for exploration of the common duct in the discussion of acute cholecystitis The majority of cases with only a history of jaundice did not present sufficient evidence at the time of operation to warrant exploration of the common duct In only 38 per cent of these patients an exploration of the choledochus was performed because of the presence of palpables tones or a dilatation of the common duct The ducts which were explored contained stones in 55 per cent of the cases

However, a much higher percentage of ducts was explored (65 per cent) in those cases in which jaundice was actually present at the time of operation In these, stones were present in 73 per cent This incidence of stones in the common duct is higher than that reported by most observers, but that is to be expected, since the criteria employed here for exploration were more rigid

In addition to the group of jaundice cases analyzed above, the common duct was explored in eight other patients who were not jaundiced In these cases the choledochus was definitely dilated or contained calculi which were palpable Stones were found in all instances

In summary, the total number of common ducts explored in 568 cases of chronic cholecystitis was 41, or 7 per cent of the total Stones were found in 29 of these common ducts, or 71 per cent of those explored The high incidence of negative findings in the common duct, in spite of careful selection of cases for exploration, leads to some interesting speculation There must have been some obstruction to the outflow of bile to produce clinical jaundice and a dilated duct found at operation There may be several explanations for this One is that small calculi frequently traverse the common duct and become impacted in the ampulla for a varying length of time before being extruded into the duodenum Another explanation for transient jaundice in these cases may be attributed to a spasm of the sphincter mechanism as a reflex response to inflammation elsewhere in the biliary tract This reflex spasm may be sufficiently prolonged to cause an obstruction to the flow of bile, leading to jaundice Then, when the inflammatory process subsides, the spastic sphincter relaxes, and a normal flow of bile ensues In the meantime, the temporary obstruction has caused some dilatation of the common duct Repeated episodes of this type could cause marked enlargement of the biliary tree and transient clinical jaundice without intraductal calculosis A dilated common duct is not an infrequent finding in the presence of a markedly fibrotic, clinically diseased gall bladder

Whenever a common duct is explored, T tube drainage is routinely instituted, the end of the tube being brought out through a right subcostal stab wound Choledochal drainage decompresses the duct, permits an appraisal of the daily secretion of bile, and, if necessary, an analysis of its contents from a chemical standpoint, especially for the presence of pancreatic ferments Before removing the T tube, a cholangiogram is done to insure choledochoduodenal patency and the absence of calculi, and, possibly, to visualize the pancreatic duct

The commonest postoperative complication is prolonged drainage from a subhepatic exudate, which almost invariably clears spontaneously Pulmonary complications such as pneumonia and atelectasis are next in importance, and a greater variety of complications are encountered only occasionally

There were three deaths in this series, of which at least two were unavoidable (cerebral hemorrhage and uremia) The third death was a case of secondary hemorrhage complicated by ileus

The mortality rate for these 568 cases is less than 0 5 per cent

We were especially interested in the ultimate follow-up of patients with a history of jaundice or the presence of jaundice at the time of operation, in whom the common duct was not explored There were 36 patients with a history of jaundice and 12 patients who were actually jaundiced at the time of operation The follow-up revealed that one patient developed recurrent colic necessitating re-exploration two years later, at which time the common duct contained gravel Another patient, in whom the common duct was so extremely narrow at the first operation that it could not be probed, returned two months later with an attack of acute pancreatitis and jaundice which subsided with medical treatment All other patients have remained well Among the 12 patients with actual jaundice at the time of operation, eight could be followed for a period up to eight years, and all have been perfectly well

The patient was seen once yearly in the neurology clinic. At the last visit on July 30, 1946, it was noted that the patient had been off quinine for one month and stated that he felt better when he was on the medication. The electrocardiogram still showed a left bundle branch block identical with the original tracing. There was weakness of the legs on walking. There was atrophy of the facial musculature, more on the lower part of the face. Otherwise the findings were as before.

No change in the cardiac status was found on follow-up in the cardiac clinic. Electrocardiograms taken on October 3, 1944, January 3, 1945, July 30, 1946, and January 29, 1947, were identical and revealed a left bundle branch block. The patient had never complained of precordial pain, dyspnea, or orthopnea, and there were never any signs of congestive failure. Fluoroscopy on January 29, 1947 revealed the heart to be normal in size, shape, and position.

A twenty-four hour collection of urine on February 23, 1947, on an unrestricted diet revealed a creatine content of 20 mg. A 17 ketosteroid done on March 4, 1947, was 16.7 mg. in twenty-four hours (normal —10–30 mg. in twenty-four hours). Ophthalmic examination on March 17, 1947, showed dustlike opacities in the lenses seen through the undilated pupil. The media were clear and the fundi normal. The ocular tension was unaffected by dilatation of the pupil.

Atropine sulfate, 2 mg., was given intravenously on three separate occasions to study the effect of this drug on the P-R interval, the ventricular rate and the tolerance of a patient with myotonia atrophica to atropine, as measured by the effect on salivation and on the pupils.

The effect on the ventricular rate is outlined in Table 1. The average change in rate for the three experiments was 20 beats per minute.

During the first study, some dryness of the mouth began twenty-five minutes after administration of the atropine. Dryness was complete after thirty-three minutes with a return of the ability to salivate after forty-four minutes. There was no effect on salivation in the other two studies. There was no effect on the pupils in any of the three observations.

The first two studies were carried out with commercially available hypodermic tablets of atropine sulfate. For the third study, a solution of atropine sulfate was specially prepared, and a chemical assay revealed that the recorded value of 0.4 mg. of atropine sulfate per 0.5 cc. was equal to 0.4029 mg. per 0.5 cc. in the chemical assay.

A further study of the effect of atropinization on the prolonged P-R interval in this patient was made. During the first study only standard limb leads were taken. After atropinization the P waves became so low as to be inconclusive for accurate measurement. Subsequent observations both by precordial chest leads and by use of the speed film (75 mm. per second) indicated no significant effect of atropinization of the P-R interval.

TABLE 1.—EFFECT OF ATROPINE SULFATE ON VENTRICULAR RATE OF A PATIENT WITH MYOTONIA ATROPHICA

Time of Observation (Minutes)	Ventricular Rate (Per Minute)		
	March 22 1947	April 19 1947	July 30 1947
Control	88	74	80
	(2 mg. atropine sulfate given intravenously)		
0.01	105	94	100
0.02	105	84	100
0.03	100	80	100
0.10	100	84	100
0.25	88*	80	104
0.40	100	**	92**

* Some dryness in mouth beginning at twenty-five minutes after injection of 2 mg. atropine sulfate intravenously; unable to salivate after thirty-three minutes. Salivation resumed after forty four minutes. No effect on the pupils.

** No effect on pupils or salivation after forty minutes of observation.

Discussion

Evans, in 1944, clinically examined the hearts of 13 patients with myotonia atrophica and found the following: pulse is often small and the blood pressure sometimes low. The first heart sound in the mitral area may be split. The electrocardiogram shows prolongation of the P-R interval, low voltage of the P wave, slurring of the QRS, and left axis deviation. The size of the heart may be normal or may appear small, but in the presence of considerable lengthening of the P-R interval, moderate enlargement may take place.[7]

The findings of other authors are listed in Table 2.[2-9] The characteristic cardiovascular findings include hypotension, prolonged P-R interval, bradycardia, and occasionally prolonged QRS interval. Of the 47 cases summarized from the literature, 26 (55 per cent) had a prolonged P-R interval (0.20 second or longer), 16 (34 per cent) showed bradycardia (60 beats per minute or slower), 6 (13 per cent) had hypotension (systolic pressure of 100 mm. Hg or lower), and 3 (8 per cent) had a prolonged QRS interval (0.12 second or longer).

Atropinization.—Ask-Upmark ascribed the bradycardia and prolonged P-R interval to an abundant effect of the "vagus substance," acetylcholine, and felt that quinine acts by inhibiting acetylcholine at the myoneural junction.[9]

TABLE 2.—CARDIOVASCULAR ABNORMALITIES IN MYOTONIA ATROPHICA

	Total Cases	Hypotension (Systolic Less Than 100 mm. Hg)	Bradycardia (60 Beats per Minute or Less)	PR Interval (0.20 Second or More)	QRS Interval (0.12 Second or More)
Ask-Upmark	8		4	3	
Carrillo	3			2	
Evans	13	3	2	13	1
Guillain and Rouques	7	0	2	2	1
Havier and Decourt	1		1		
Maas and Zondek	1		1	1	
Mondon and Pasquet	1		1	1	
Waring, Ravin, and Walker	13	3	5	4	1
Total	47	6	16	26	3

THE HEART IN MYOTONIA ATROPHICA

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MYOTONIA atrophica is a disease of muscle, usually beginning in the third decade of life, which is characterized by coincident wasting and weakness of muscles The muscles usually involved are the facial, the sternocleidomastoids, the forearm and small hand muscles, and the vasti and anterior tibial dorsiflexor muscles of the lower extremity Curschmann pointed out the many extramuscular manifestations of the disease, such as lens opacities, frontal baldness, low basal metabolic rate with elevation of blood cholesterol, and in males, testicular atrophy [1] In recent years both cardiac and gastrointestinal manifestations have been noted [2–9]

Our interest in the heart in myotonia atrophica was stimulated by the discovery in the cardiac clinic of a patient with this skeletal muscle disease and an abnormal electrocardiogram showing a prolonged P-R interval (0 24 second) and left discordant bundle branch block of unknown cause (Fig 1)

Case Report

M L , a forty-two-year-old clerk, was admitted to the hospital on August 7, 1944, because of a first attack of three days duration of pain in the right calf on walking During the five years before admission, the patient began to notice weakness of both legs, atrophy of the calf muscles, and a "heavy stepage" gait. He had difficulty in changing from a lying to sitting position and in straightening up after bending He had noted no particular weakness in the arms, no loss of balancing power, and no sensory disturbances

The physical examination revealed a well-developed and well-nourished white male in no acute distress, although giving an appearance of being chronically ill The skin showed a vitiligo of both feet and ankles There was baldness of the hair of the head The pupils reacted sluggishly to light and accommodation The left lid was lower than the right The eye grounds were normal The tongue deviated to the right, and there was mild atrophy of the papillae of the right side There was no lymphadenopathy The lungs were clear to percussion and auscultation The heart was not enlarged The sounds were distant The second pulmonic sound was split and was greater than the second aortic sound There was a soft systolic blow at the apex. The radial pulse and ventricular rates were equal at 72 beats per minute The blood pressure was 110/80. There was no enlargement of the liver or spleen and no peripheral edema. Muscular and neurologic examination revealed weakness of both orbicularis oculi, both sternocleidomastoid, both anterior tibial, and both quadriceps muscles. There was a thinning of both legs as well as the lower thirds of the thighs. There was a bilateral foot drop Knee jerks were normal, and ankle jerks were absent bilaterally The Babinski sign was negative There was no ataxia or sensory change The hands showed typical myotonic reactions in that the relaxation of the closed hand was unduly prolonged. The testes were atrophic

Laboratory Data —The red blood count was 4,950,000 cells per cu mm with 81 per cent hemoglobin The white blood count was 9,650 cells per cu mm. with 71 per cent polymorphonuclear leukocytes The urine examination was normal The fasting blood sugar was 83 mg per cent with a normal glucose tolerance test The nonprotein nitrogen was 38 mg per cent. The Wassermann was negative The basal metabolic rate was −25 per cent. A spinal tap revealed an initial pressure of 150 mm of water The terminal pressure after removal of 15 cc of fluid was 120 mm of water No cells were found. The glucose was 56 mg per cent, the total protein, 50 mg per cent, the chlorides, 610 mg per cent, and the Pandy plus minus The venous pressure was 9 5 cm water Blood chemistry revealed a sodium level of 373 3 mg per cent, potassium of 15 4 mg per cent, cholesterol 219 mg per cent, phosphatase (alkaline) 5 3 Bodansky units. The electrocardiogram showed a left discordant bundle branch block Oscillometric readings at the ankle were two at a blood pressure of 100 mm. Hg on the right side and 1¾ at the same manometric reading on the left Urine examination for creatine showed an excretion of 384 mg in twenty-four hours (normal—0 to 50 mg in twenty-four hours) [10]

Course —A diagnosis of myotonia atrophica and left bundle branch block of unknown etiology was made The patient was started on quinine, 0 3 Gm three times daily, and Vitamin B complex At physiotherapy, the reaction of both flexor and extensor muscles of the legs to faradic current was slow, and the relaxation was very long and gradual instead of sudden as in the normal muscle Reaction to galvanic current was normal, indicating that there was no nerve involvement The pain in the right calf disappeared within two weeks of admission, and the patient was discharged improved to the neurology and cardiac clinics on September 7, 1944.

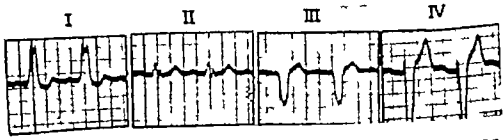


FIG 1 Electrocardiogram taken January 29 1947, showing P-R interval of 0 24 second and left bundle branch block. This record is similar to those taken on October 3, 1944, January 3, 1945 and July 30, 1946

STANDARDS FOR CARE OF CHRONICALLY ILL

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(From the St Barnabas Hospital for Chronic Diseases)

IN A PROGRAM for integrated hospital care the patient with chronic disease deserves special consideration Although the neglected stepchild of organized medical and health efforts in the past, he can no longer be relegated to a minor role, for chronic disease causes three times more disability than acute illness and blights the life of every fifth inhabitant of the United States (Table 1) [1] The problem of chronic disease is almost as challenging to our generation as the atomic bomb Adequate care of the chronic patient is the number one health problem of the nation.

TABLE 1 —Rates of Illness According to Several Measures in the United States*

Type of Information	Rate
Percentage of persons disabled on day of visit	4 4
Percentage of persons disabled for whole 12 months immediately preceding visit	1 2
Percentage of persons reported as having chronic disease or impairment	17 7
Illnesses disabling for 1 week or longer during 12 months immediately preceding visit (frequency per 1 000 persons)	
All illnesses	171 0
Acute	123 0
Chronic	48 0
Diseases	45 0
Impairments	2 9
Excluding persons disabled for whole period	159 0
Number of days of disability per person observed	
All illnesses	9 9
Acute	2 6
Chronic	7 3
Diseases	6 3
Impairments	1 0
Excluding persons disabled for whole period	5 6
Number of days of disability per case	
All illnesses	58 0
Acute	21 0
Chronic	154 0
Excluding persons disabled for whole period	36 0
Percentage of workers (15 to 64 years of age) who were reported to be unemployable by reason of disability	1 1

* Adapted from Reference 1

Half of the 25 million victims of chronic illness (177 per 1,000 population, or 17 7 per cent) are under the age of forty-five, and one in every six is under twenty-five [2] The million and a half complete invalids from chronic disease (10 8 per 1,000 population) cause the loss of a billion days a year from constructive pursuits [3] Medical science has conquered the ravages of acute infectious diseases and increased the life span of man 100 per cent, from twenty-nine years in ancient Grecian times to a level well over sixty years today In extending and saving life, however, medicine has created a new and serious problem, the patient with chronic illness—the cause of two thirds of our deaths today, compared with only one fifteenth seventy years ago Progress in the diagnosis and treatment of diseases of the long-term variety has not decreased the incidence of these illnesses (Table 2)

TABLE 2 —Estimate of Number of Americans Suffering from Chronic Diseases*

Disease	Number of Persons
Rheumatism and arthritis	6 500 000
Heart disease	5 000 000
Arteriosclerosis and high blood pressure	3 700 000
Hay fever and asthma	3 450 000
Persons crippled by infantile paralysis and other orthopedic diseases	2 600 000
Syphilis (rough estimate)	2 000 000
Hemorrhoids	2 000 000
Varicose veins	1 750 000
Chronic bronchitis	1 700 000
Nervous and mental diseases	1 450 000
Nephritis and other kidney diseases	1 550 000
Goiter and other thyroid ailments	1,200 000
Sinusitis	1 150 000
Cancer and other tumors	930 000
Diseases of female organs	720 000
Tuberculosis all forms	680 000
Diabetes mellitus	660 000
Diseases of gallbladder and liver	640 000
Ulcers of stomach and duodenum	330 000

* Based on figures compiled by George St J Perrott U S Public Health Service. The total is 23 000 000 because some Americans are afflicted with two or more chronic diseases (adapted from Reference 3)

An integrated and standardized program for chronic patients is nonexistent, as are order and logic in their care Some chronic patients are in nursing homes and homes for the aged not properly equipped for their care, others who should be in hospitals are at home, still others are in hospitals when they should be at home "The problem is twofold These patients need an increasing amount of professional and institutional care, and ways and means must be developed to provide that care "[4]

The report of the Commission on Hospital Care cites only 315 hospitals with but 51,861 beds for long-term patients in the United States, including convalescent, other than those for mental, tuberculous, and Federal civilian patients [4] When the latter three are included, however, they comprise 61 6 per cent of the total beds and 21 6 per cent of the nation's hospitals *

Read before the Forum on Special Problems at the 26th Annual American Hospital Standardization Conference of the American College of Surgeons New York City September 11 1947

* Total of 5 982 hospitals and 1 278 074 beds Short-term—4,691 hospitals or 78.4 per cent, 491 230 beds or 38.4 per cent long term—1 291 hospitals or 21 6 per cent, 786,844 beds or 61 6 per cent (American Hospital Directory 1946) [4]

Havier and Decourt found that intravenous administration of atropine sulfate (total dose 2 75 mg in doses of 1 mg , 0 75 mg , and 1 0 mg within nineteen minutes) to a patient with a heart rate of 64 beats per minute raised this rate to only 88 beats per minute [4] The P-R interval was 0 18 second before atropinization and was not affected Evans stated that intravenous atropine had no effect on the prolonged P-R interval in two patients in his series [7]

Administration of 2 mg of atropine sulfate intravenously to our patient likewise had no effect on the P-R interval The rationale for the use of this drug was suggested by Bruenn who studied the mechanism of impaired auriculoventricular conduction in acute rheumatic fever [11] Using 1 5 to 3 mg of atropine sulfate intravenously, he was able to reduce significantly a prolonged P-R interval in 20 of 22 patients In one of the two patients unaffected by atropine, impaired auriculoventricular conduction was found even a year after the study, and the patient was regarded as having structural damage to the junctional tissues of the heart as a result of the rheumatic lesion

The average increase in ventricular rate noted by Bruenn after atropinization was 26 4 beats per minute This figure is to be compared with the increase of 24 beats per minute in the case reported by Havier and Decourt and an average increase of 20 beats per minute in our patient

The minimal or absent effects of atropinization (2 mg intravenously) on the pupils and the process of salivation suggest some degree of tolerance to atropine sulfate of patients with myotonia atrophica Further study of this observation is contemplated

Quinine Sulfate—The question of whether quinine sulfate could produce a bundle branch block was raised This was based on the reports of Maynard and Viko, Marvin, and White which indicated that quinidine, another cinchona derivative, depresses intraventricular conduction and under some conditions produces bundle branch block [12 13] However, even after cessation of administration of quinine sulfate for one month, the electrocardiogram still showed a left bundle branch block The excretion of quinine given orally is almost complete within twenty-four hours [14 15]

Cardiac Involvement—It has been suggested that the myocardium might also be involved in the dystrophic process, but others hold that the changes observed clinically resembled those due to coronary sclerosis [2–4 6,16] There is no significant pathologic confirmation for either of these beliefs However, Bevans in a necropsy study of the hearts of four young patients (twenty, fourteen, eighteen, and sixteen years of age) with an allied muscular disorder, namely, progressive muscular dystrophy, found gross myocardial lesions which included increase and opacity of the myocardial fat, streaks of fibrosis throughout the myocardium, particularly in the left ventricle, and slight focal thickening of the endocardium [17] On microscopic examination the myocardial fibers showed changes similar, but not identical, to those in the skeletal muscles

Summary

A patient with myotonia atrophica and electrocardiographic evidence of prolonged P-R interval and left bundle branch block is presented

A tolerance in this chronic muscular disease to atropine sulfate is suggested by the minimal to absent response of the pupils and the process of salivation to intravenous administration of 2 mg of the drug

A review of the literature covering the involvement of the heart in myotonia atrophica is given The possibility that this represents another rare form of heart disease is offered

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VALUE OF HORMONE CREAMS HIGHLY CONTROVERSIAL

The value of hormone creams as "skin rejuvenators" is highly controversial, points out Maxine Block, Hollywood, California, in *Hygeia*, health magazine of the American Medical Association Writing in the March issue of the magazine, Mrs. Block emphasizes that, although the relation of cancer to sex hormones is still a laboratory problem, tests on animals showed that there is some danger that the hormones may cause malignancy—*J A M A , February 25, 1949*

Improvement and standardization of medical and nursing procedures in the care of the long-term patient are greatly needed Chronic institutions usually lack a sufficient and competent staff, professional and nonprofessional Accommodations for patients, and facilities for diagnosis and treatment are inadequate The medical and nursing needs challenge the highest type of skill which these professions are able to render The combination in one patient of confinement to bed because of serious disease, together with incontinence and inability to feed himself, presents an overwhelming problem in prevention of bedsores and general deterioration

The type and quality of medical care required by chronic patients differ little from those needed by patients afflicted with acute illness Every diagnostic and therapeutic facility existing in the general hospital should be available to the chronic patient In addition, special features should be provided, such as bedside radios and diversional activities, together with rehabilitation programs

Rehabilitation methods learned from World War II are beginning to be applied to the civilian population which includes a much larger number of chronically diseased and handicapped persons than were disabled as a result of the war, by a ratio of at least 5 to 1 [8] Technics of physical, mental, and vocational rehabilitation have a wider field of application in the chronic hospital than has been suspected This is a hopeful prospect for chronic patients, particularly those in the younger age group, under forty-five years, who comprise half of the total twenty-five million victims in the nation today

General hospitals usually lack sufficient solaria, balconies for sunshine, adequate gardens and grounds, and other recreational facilities essential to the long-term patient, throughout the country as a whole these desirable features are not, unfortunately, available to chronic patients The special chronic hospital, new in construction and designed with these particular facilities, is needed, especially in large cities Special hospitals thus established should be self-sustaining, embracing all the facilities and services now customarily thought of in connection with general hospitals, or should be affiliated so that there is no lack of complete professional and auxiliary benefits

Various public welfare and health organizations should strive to improve services available to chronic patients being cared for in private and nursing homes Affiliation between general hospitals and nursing homes raises standards of care in the latter Plans have been advanced for physicians and nurses to care for these patients in their own homes It is unfortunate that in many county homes, homes for the aged, and similar institutions, insufficient emphasis is placed on individual care needed by many of these patients These institutions, however, may well serve those patients who require only domiciliary care, yet they too should be affiliated closely with a general hospital [4]

One obstacle in providing adequate hospital service for patients with chronic disease is the almost prohibitive cost involved. Ordinarily, the chronic patient already has been in and out of several general hospitals so that his funds, as well as those of his family and relatives, are exhausted The per diem cost for care of the long-term patient, however, is generally about half to two-thirds of that for the acutely ill This is true whether long-term patients are cared for in a separate unit of a general hospital or in a self-contained chronic hospital Many of our chronic hospitals are supported by taxation, others are sponsored by private philanthropy The community and other governmental agencies should provide for long-term patients unable to pay cost of care in general hospitals or in other specialized institutions

A solution can reasonably be expected for many of the problems of aging and of degenerative diseases when investigation in the basic sciences is encouraged by further hospitalization of patients with long-term illnesses New technics and methods of therapy will be developed more quickly and their use made better known through such efforts The primary difference between the long- and the short-term patient is the amount of special service required and the average length of stay in hospitals Hospitalization of patients affords the best opportunity for study and research to mitigate present undesirable results and reduce the incidence of chronic diseases.

Medical teaching should take cognizance of this changed emphasis in disease incidence, medical students, interns, residents, and practitioners of medicine should receive proper instruction in diagnosis and therapy of chronic degenerative diseases in early and advanced stages Ample material is available for undergraduate and graduate teaching, and affiliations with medical schools should be developed with this goal in mind. Physicians, medical and nursing students, and registered nurses should have opportunity for firsthand study of all aspects of chronic illnesses through adequate hospitalization of long-term patients

Since the problems of chronic disease and the aging process are so diverse and of such far-reaching consequence, it is felt that a national commission on chronic diseases should be established, including wide representation from both professional and consumer groups, with the thought of giving more thorough study to the problem, out of which may come recommenda-

A large number of beds for chronic patients are in nursing homes which are neither members of the American Hospital Association nor registered by the American Medical Association Albeit such institutions provide considerable service, they are, for the most part, of small capacity and provide inadequate general care General hospitals, on the other hand, often allot beds for use of chronic patients, their quality of care usually is good

It should be stressed that not only is there need for regulation of nursing homes and other institutions for the care of the chronically ill to guarantee better quality of care and patient-safety, but there is urgent need for further development of hospital care A considerable number of such new extensions could be attached to already existing general hospitals, thus improving continuity and integration of medical and hospital service by close physical proximity This principle is especially applicable to small communities where general hospitals have not exceeded optimal size for efficient and economic operation, as perhaps is the situation in some of the large urban centers

On the other hand, the special hospital for chronic diseases is adapted particularly to the health and medical needs of urban communities Therefore, construction of special hospitals of the long-term variety seems indicated in large cities in order to meet community needs for the chronic sick where population exceeds 100,000

Two beds per 1,000 population are recommended by public health authorities as the minimum number for adequate hospital care of chronic patients [5] On this basis 280,000 beds for long-term patients, five and one-half times more than now available, would be required for the country as a whole It has been suggested that over 50 per cent of these beds would be required for patients needing active medical care The remaining 50 per cent, or one bed per 1,000, would be for patients needing custodial care but under medical supervision [6] However, in view of recent developments in the technics of rehabilitation and hospital care of patients with chronic disease, I am of the opinion that all of the two beds per 1,000 population will be needed for active hospital care, especially in view of the large number of long-term patients now being cared for in general hospitals

In addition, there is need for two and one-half beds per 1,000 population for the chronically ill in related institutions of high quality, which would comprise beds in nursing homes, homes for the aged, convalescent homes, infirmaries, supervised boarding homes, and other related institutions Accurate statistics have not been secured as to the total number of beds available for chronic patients throughout the United States in related institutions These needs should be determined by adequate surveys

In summary, the estimated minimum need for beds in hospitals and related institutions of high quality for the chronically ill is four and one-half beds per 1,000 population, including two beds per 1,000 for hospital care and two and one-half beds per 1,000 for custodial care in the related type institution [7]

Of the one and a half million persons (10 8 per 1,000 population) in the nation disabled for ove a year from chronic illness, about 42 per cent, o 630,000 would benefit from medical care in hospital or related-type institution (Fig 1) This is based on the need of four and one-hal beds per 1,000 population, or a total of 630,00 beds, for the care of chronic patients in hospital and related-type institutions Forty-four and four-tenths per cent of these, or 280,000 persons, would benefit from active medical attention, the remainder requiring mostly custodial care under medical supervision Therefore, all the 280,000 hospital beds recommended for the nation for patients with chronic disease should be used for active medical treatment, and the other 350,000 beds should be restricted to custodial care of long-term patients under medical supervision in related-type institutions of high quality

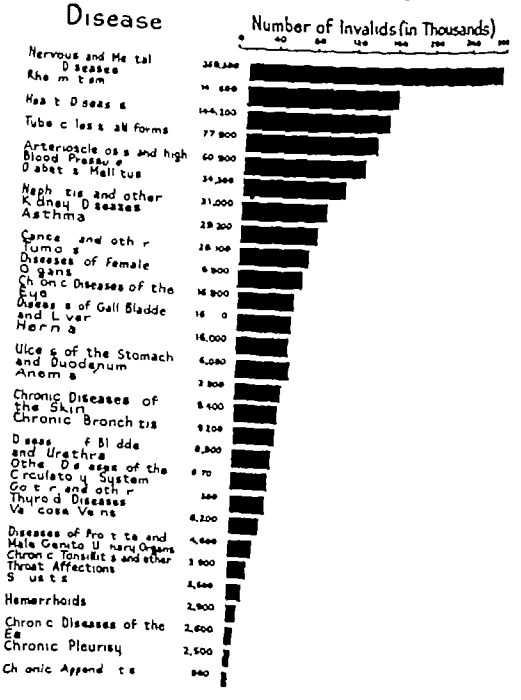


FIG 1 Estimated number of invalids disabled from specified chronic diseases in the United States in 1937 (adapted from Reference 3)

THE USE AND ABUSE OF THE ANTITHYROID DRUGS

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THE frequent reference in the current medical and surgical literature to the utilization of the thiourea group of drugs in hyperthyroidism has produced confusion This confusion has resulted in an erroneous interpretation of the value and usage of the antithyroid drugs In addition to the confusion that reigns, a hidden antagonism exists between the internist and the surgeon Often the internist is of the opinion that thiouracil, thiobarbital, or propyl thiouracil will obviate the need for thyroidectomy The surgeon, on the other hand, opposes the medical treatment of hyperthyroidism without thought to an eventual surgical procedure A clear understanding of the use of the antithyroid drugs will not only eradicate the animosity between surgeon and internist but will also establish a pattern for the rational management of patients with thyroid disease

As a preamble, it must be admitted that the final word in the treatment of thyroid disease has not been written The antithyroid drugs have been a great contribution in the management of the hyperthyroid patient However, in view of the fact that the fundamental cause of hyperthyroidism is not known and since it cannot be determined whether or not the thiourea group of drugs affect this causative factor, these drugs cannot be accepted as specific remedial agents for hyperthyroidism This belief is further substantiated by the known fact that other glands have enlarged when the thiourea drugs have been administered Enlargements of the salivary gland and the pancreas have been reported [1] Therefore, these drugs cannot be classified as specific agents acting solely on the thyroid gland

Notwithstanding our incomplete knowledge, the use of the antithyroid drugs has found a definite place in the management of hyperthyroidism These drugs are thiouracil, thiobarbital, and propyl thiouracil Of the three drugs, propyl thiouracil has the widest range of safety The lowest incidence of toxicity is recorded following its use The maximum therapeutic efficiency of this drug is obtained by administering it in a 200-mg daily dose [1]

This drug, when administered over a sufficient length of time, will cause an elevated basal metabolic rate to return to normal Generally speaking, the drug must be administered for the same number of days that the basal metabolism is elevated Thus, a basal metabolism rate of 50 would indicate that propyl thiouracil would be given for approximately fifty days with a daily dosage of 200 mg

The next question to answer concerns the type of hyperthyroid patient that should receive the drug It is universally agreed that toxic hyperthyroid patients should receive the drug The diversity of opinion commences after the above question has been answered Some internists believe that they should treat the patient medically without operation Surgeons, on the other hand, advocate the use of propyl thiouracil as a preoperative drug to prepare the patient for thyroidectomy

As a surgeon, I would agree to the medical treatment of primary hyperthyroidism with propyl thiouracil in only one type of patient This would be a patient having mild hyperthyroidism with a small thyroid gland In this instance medical treatment would be allowed for one year After that time if there was not sufficient improvement, surgery could be recommended It is common knowledge that the antithyroid drugs have the ability to produce a long period of remission in hyperthyroidism [1] Lugol's iodine without propyl thiouracil may sometimes result in the same type of recrudescence Therefore, propyl thiouracil is not needed in many cases

The surgeon believes that the present low mortality in thyroid surgery warrants thyroidectomy in almost all instances of hyperthyroidism The surgeon's attitude is strengthened when one considers the deleterious effects resulting from the prolonged use of the thiourea drugs These noxious effects may be termed abuses, for, while the drug is expected to do one task, its actions may be more harmful than was suspected at the beginning The abuses may be as follows

1 Myxedema may be produced
2 There is danger of laryngeal edema in the resulting hypothyroid state
3 The underlying pathology is not eradicated by these drugs
4 Enlargement of other glands, as the salivary glands or the pancreas, may occur
5 There is a possibility of instituting malignant degeneration in the thyroid gland
6 The gland does not decrease in size

First, the use of the antithyroid drugs produces such a remarkable lowering of the basal metabolic rate that the prescriber may become too enthusiastic If the drug is given in sufficient doses over a long period of time, the synthesis of thyroxin may be inhibited The basal metabolic rate continues to fall When the available cir-

ther voluntary efforts as well as gov-
upport
ge and an opportunity face the general as well as the chronic hospitals of today in application of modern scientific and medical discoveries to the field of long-term illness The success which these objectives may attain will depend largely upon the vision and foresight manifested by progressive hospital administrators, boards of trustees, and the medical and nursing professions in mobilizing community resources in support of these deserving endeavors on behalf of long-suffering patients with chronic sickness

Freedom from disease must be included among our immediate goals, aided through an adequate plan of integrated hospital service for the chronically ill Our aim should not only be to add years to life but life to the years

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URGES AWAKENING TO THREAT OF SOCIALISM

Business and professional people must abandon their comfortable belief that socialization of medicine and other professions and industry "can't happen here," Dr Ernest E Irons, Chicago, president-elect of the American Medical Association, told members of the Woman's Auxiliary of the Chicago Medical Society on Tuesday, March 8

"I urge you to take this present threat to America and our free institutions seriously This is a fight to prevent the importation of a ruinous socialism, which developed and has repeatedly failed in Europe, into our up-to-now free America," Dr Irons said

"Among Federal Security Administrator Oscar Ewing's allegations in justification of taking over the medical care of the American people is the charge that the physicians as represented by the American Medical Association have no program, or, if they have, it has worked so badly that we as a nation are about to fall to pieces. The fact is that we enjoy the best health and the best medical care of any nation on earth," he said

"In support of his demand for political medicine, Mr Ewing quotes draft statistics which have been cunningly misstated by those who consistently have been attempting to undermine our government. Selective service statistics are mishandled by assuming that the percentage of total rejections represented a cross section of the entire male population subject to draft The fact is that before the draft there were removed from the group 2,700,000 acceptable men who enlisted voluntarily

"Another 35 5 per cent were deferred for essential occupation or dependency Ten million of the remainder were examined from December 7, 1941, to December 31, 1943, 3,600,000 were rejected. Of these rejections, 21 7 per cent were rejected for illiteracy, mental deficiency, and venereal disease, 43 26 per cent for mental disease, defective heart ailments, amputations—a total of almost two thirds of all rejections

"By most liberal estimates only about 20 per cent of the rejections were for preventable disease. Political medicine will not cure flat feet or illiteracy

"Glowing promises are made by Mr Ewing of complete over-all medical care No mention is made of the certainty of the deterioration of quality of care which inevitably will follow a system administered by governmental regimentation, and which has always followed in nations where compulsory sickness insurance has been tried

"A payroll tax of 1½ per cent is suggested in present discussion, but even proponents of the plan admit that this tax will quickly rise to 4 per cent and eventually to 9 per cent and more For sales purposes to the people, the cost of administering compulsory medicine is now estimated between three and four billion dollars per year, the real fact is that the cost will rise from six billion to 18 billion per year

"On the basis of German experience, there will be added to the government employes 1,500,000 more payrollers The worker already parts with 20 to 30 per cent of his wages through hidden and payroll taxes, and compulsory medicine will take still more from him for a service of dubious quality

"In this fight for preservation of our freedom in medicine and the preservation of American democracy, there can be no compromise We are either for or against socialization of medicine and the socialization of America, either black or white There can be no gray"

THE PRESERVATION OF THROMBOPLASTIN SUSPENSIONS IN THE FROZEN STATE

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THE general extension of dicumarol therapy in thrombotic and thromboembolic conditions to institutions smaller than general hospitals has been hampered by trepidation over the results of prothrombin time determination tests While bedside tests have been devised, the lack of unanimity as to the normal prothrombin "time" and the possibly justifiable insistence on a report in prothrombin "percentage" has discouraged many physicians from employing dicumarol [1]

The main difficulty in prothrombin testing has centered around the supposed variability of thromboplastin preparations As Quick has pointed out, there are many procedures more tedious than rabbit brain thromboplastin preparation at which the laboratorian does not balk, and he advocates that each laboratory make its own thromboplastin [2] Two excellent preparations of dried rabbit brain (Difco and Maltine) are universally available and have been used by the writers These should have solved the problem, but even in large and active institutions the quality of the prothrombin reports continues to aggravate both clinical and laboratory staffs In the small hospital or commercial laboratory it is not uncommon to find a single test done daily, necessitating daily thromboplastin suspension preparation and inactivation. This is a procedure taking far more time than the simple execution of the test proper, and afterwards the bulk of the thromboplastin must be discarded

Actually, the hazards encountered in prothrombin testing are seldom the fault of the thromboplastin preparation Every described method of prothrombin determination evinces a progressive series of technical fallacies which start off at the time of blood collection and end with the recording of the result There are uncontrollable variables in every procedure whose limits far exceed what is purported to be the unreliability of commercial thromboplastin Attempts to reduce some of these errors were incorporated in a method recently described which embodied (*a*) Vacutainer collection through a paraffined needle, (*b*) use of Russell viper venom thromboplastin, and (*c*) recording as end points the time of appearance of both filar and gelatinous fibrin components of the clot [3]

In spite of the criticisms directed against its use the writers feel that viper venom (Stypven, Burroughs Wellcome & Co) is an excellent thromboplastin for use in prothrombin determinations both in small and large laboratories [4,5] Unfortunately, it has been available only sporadically for the past two years While we were attempting to prepare a comparable transparent thromboplastin from rabbit brain by alternately freezing and thawing the suspensions to "crack" them, a preparation, inadvertently left in the freezing compartment for several weeks, was found to have thromboplastic activity comparable to the freshly prepared material Repeated freezing and thawing of rabbit brain thromboplastin suspensions does not affect its activity Thawing of such suspensions is rapid at room temperature Since the material remaining after the conduct of a single test may again be frozen and preserved, it fills the needs of the occasional user Its preparation and use is described *

Preparation of Suspension

Three hundred milligrams of acetone-dried rabbit or human brain are placed in a dry, 15-cc conical tipped centrifuge tube, 2 5 cc of 0 9 per cent sodium chloride solution added, and the contents inactivated at 45 C for about ten minutes, the particulate material being macerated in the fluid during this time with a glass rod [3] The tube is immediately transferred to the freezing compartment of a refrigerator until frozen solid, and then allowed to thaw at room temperature Alternate freezings and thawings are repeated three times The particulate matter should now have completely settled, leaving a slightly opalescent supernatant liquid which is ready for use Laboratories conducting large numbers of tests will find it convenient to prepare multiple tubes at the same time, it is not convenient to prepare larger samples in a single tube because of the time required for thawing

Conduct of the Test

Blood is obtained either in a citrate solution moistened 10-cc Luer syringe or in the Vacutainer tube with special citrate anticoagulant, which has the advantage of being used for other blood studies [9,10] The erythrocytes should be allowed to settle but not the platelets as they yield an

* Warner and Smith and their coworkers advocate the storage of brain extract in small vials contents are kept frozen from the time of preparation until use and the excess is then discarded.[4,7] They also find that thromboplastin suspensions retain their potency even in the unfrozen state *if* kept at ice box temperature. Our findings which contradict the reputed lability of thromboplastin suspensions conform to theirs

culating thyroxin has been exhausted, myxedema may result This myxedematous state will persist as long as the thiourea drug is administered

Second, if operation is contemplated when the patient is in a state of myxedema, the possibility of postoperative laryngeal edema must be considered This edema, plus myxedematous infiltration of the larynx and vocal cords, may cause respiratory distress Under this circumstance a tracheotomy may be necessary [2]

Third, it must be remembered that the antithyroid drugs do not eradicate the underlying pathology Histologically, the glandular hyperplasia which institutes hyperthyroidism remains This hyperplasia persists even though the basal metabolic rate may be normal [1]

Fourth, excessive administration of these drugs is known to have caused salivary glandular enlargement and pancreatic hyperplasia [1] Other organs may be similarly affected, but up to the present time such findings have not been detected The evil effects of this type of enlargement may or may not institute malignant changes as it does to the thyroid gland itself

Fifth, evidence has been offered that malignant changes can occur in the thyroid gland if the drug is administered too long This is especially true in patients with adenomatous goiters One case has been reported from Norfolk, Virginia, in which the surgeon definitely believes that carcinoma has been produced in a thyroid adenoma because of thiouracil [3]

Finally, the thyroid gland remains hyperplastic following administration of these drugs The gland does not decrease in size and may even increase in size Failure of the gland to diminish in size, plus the histologic evidence of hyperplasia, argues against the belief that these agents will permanently cure hyperthyroidism

Conclusions

1 An evaluation is made concerning the uses of and the abuses resulting from the excessive use of the antithyroid drugs

2 With the experience of others, as revealed in the literature, it may be proper to assume that the thiourea group of drugs cannot be considered as offering a permanent cure for severe hyperthyroidism

3 The dangers resulting from a prolonged administration of these drugs have been mentioned

4 The low mortality of thyroidectomy argues for surgical intervention in severe primary hyperthyroidism, adenomatous goiter with secondary hyperthyroidism, and thyroid adenoma

5 The use of the antithyroid drugs in the preoperative preparation of the thyroid patient may be considered as one of the most beneficial therapeutic contributions to the modern advancement of the study of thyroid disease

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A M.A PROVIDES $25,000 TO SET UP CHRONIC ILLNESS COMMISSION

Carrying out another of the objectives of the American Medical Association's 12-point program for the advancement of medicine and public health, the Board of Trustees of the A M A has made available $25,000 to set up the Commission on Chronic Illness The sum, drawn from the A M A 's national education campaign fund, was allotted to the Interim Commission on Chronic Illness, which will set up the permanent commission

A conservative estimate suggests that more than one sixth of the population is afflicted with some chronic disease. Approximately 2,000,000 persons in the United States are chronic invalids at the present time, and the number is steadily increasing

The commission is a joint project of the A.M A , the American Hospital Association, the American Public Health Association, and the American Public Welfare Association, and was recommended by the Section on Chronic Disease of the National Health Assembly Dr James R Miller, Hartford, Connecticut, member of the Board of Trustees of the A M A , is chairman of the Interim Commission and will be a member of the permanent commission Other members of the Interim Commission, all of whom will be among the members of the permanent commission of approximately 30, are Dr Thomas A McGoldrick, Brooklyn, New York, representing the A M A , Dr Albert Snoke, New Haven, Connecticut, and J Douglas Colman, executive director, Maryland Hospital Service, Baltimore, representing the A H A , Dr Dean W Roberts, chief, Bureau of Medical Service, Maryland State Health Department, Baltimore, and Dr Edward S Rogers, of the Public Health School, University of California, Berkeley, representing the A P H A

This coordinated effort in the field of chronic illness is an excellent example of constructive cooperation between public and private agencies in answering one of the greatest and most acute of all social needs.—*J A M.A , February 25, 1949*

THE SYMPTOMATIC TREATMENT OF ALLERGIC DISEASES WITH NEOANTERGAN*

EMANUEL SCHWARTZ, M D , F A C P , LOUIS LEVIN, M D , and I MAXWELL KURTZ, M D , Brooklyn, New York

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THE concept of allergy originated when the similarity between anaphylaxis and the symptoms of hay fever and asthma was recognized It would be repetitious to go into too much detail as to what constitutes the allergotoxin which is liberated during an antigen-antibody reaction in an allergic individual That this allergotoxin is histamine, at least in part, has been fairly well established A brief review of the literature would perhaps be in order Dale argued that histamine was probably the cause of anaphylaxis, since the symptoms produced in the experimental animal by histamine and anaphylaxis were similar [1] The work of Best, Dale, Dudley, and Thorpe showed that normal living cells contained histamine [2] Thus an explanation for the source of histamine in the phenomenon of anaphylaxis was offered The studies of Lewis and Grant in the blood vessels of the human skin led them to believe that, as a result of irritation, a histamine-like substance was released from living cells [3] Dragstedt demonstrated that histamine is liberated during anaphylaxis [4 5]

Any drug that would tend to neutralize the effects of this liberated histamine in an allergic reaction would be of value The original antihistaminic drugs did just this, but their great drawback was that they were too toxic Among these early antihistaminic compounds were those prepared by Fourneau and Bovet in 1933, Staub and Bovet in 1937, and Staub in 1939 [6–8] All of these had excellent antihistaminic properties, but they were all too toxic for clinical use Thus, a search has been going on for better antihistaminic drugs that would have even greater histamine antagonistic properties and less toxic reactions.

By now it has been well established that there are a whole series of new drugs which have antihistaminic properties The recent literature contains many articles on animal experimentation with these histamine antagonists They all protect experimental animals against histamine shock and to a great degree against anaphylactic shock. Many of these compounds have been tried clinically and found useful in alleviating the various allergic symptoms in humans

In spite of the splendid antihistaminic and antianaphylactic properties of these drugs in experimental animals, the ultimate criterion is their clinical effectiveness in man, especially with regard to their symptom-relieving effect and to their degree of undesirable side reactions With this in mind an attempt is made to evaluate the clinical potency of one of these newer histamine antagonists, Neoantergan (N-*p*-Methoxybenzyl-N',N'-dimethyl-N-*a*-pyridylethylenediamine maleate)

In 1942, Halpern described his results with a new series of substances, the most active of which were called 2325RP and 2339RP [9 10] The latter was named, "Antergan," and found to be much more specific against histamine than any previously discovered compound More recently, a new ethylenediamine derivative was described by Bovet and his associates [11] This substance, called Neoantergan by the manufacturers, is claimed to be even more effective and much less toxic than Antergan Bronchospasm induced in guinea pigs and depression of blood pressure elicited in dogs by the injection of histamine or histamine liberated in anaphylaxis are readily prevented or diminished by Neoantergan. Sherrod and his coworkers found that the potency of Neoantergan in counteracting histamine bronchoconstriction exceeded Benadryl and Pyribenzamine twenty and four times, respectively [12] Winter showed that Neoantergan had the highest order of antihistaminic potency against intravenous histamine, histamine aerosol, and on intestinal strips against histamine in vitro [13] Side reactions were less noticeable after Neoantergan Feinberg and his associates found that Neoantergan (1) has potent antihistaminic and antianaphylactic activity in guinea pigs, (2) was of benefit to 39 of 60 patients (65 per cent) in hay fever, (3) benefited eight of ten patients in perennial vasomotor rhinitis, and (4) gave symptomatic relief to one of five patients with asthma [14] Arbesman described results with Neoantergan as follows In extrinsic allergic rhinitis the drug was of benefit to 63 per cent of 208 cases, in extrinsic bronchial asthma to 43 per cent of 69 cases The incidence of side-effects was 33 per cent of 247 cases [15]

Personal Observations

In our study Neoantergan was given to a series of 141 patients suffering from various

* Furnished through the courtesy of Merck & Co Inc.

increment of thromboplastin to the reaction mixture One-tenth cubic centimeter of plasma is transferred to a conical-tipped centrifuge tube (these are more easily handled than the Kahn tubes ordinarily used) whose bottom is immersed in a beaker of water at 35 to 38 C , 0 1 cc of thromboplastin is added, and before thirty seconds have elapsed, 0 1 cc of 0 025 molar calcium chloride solution is added On the latter addition, which is blown in from a 0 1-cc pipet, the timer is started The tube is kept immersed and in gentle motion within the glass beaker water bath which permits visualization of the end point The latter should be taken as the time of sudden opacification which may precede the appearance of a reticulum (filar fibrin) by a second The last stage of the clotting process is gelatinization In normal plasmas the entire process of coagulation, from opacification to gelatinization, occupies about two seconds Where a longer interval obtains (as during dicumarol therapy or induced or autochthonous hyperheparinemia), the fact should be noted on the report of the test

Prothrombin times on normal, human, citrated plasma by this procedure and with this thromboplastin preparation vary from ten and a half to thirteen and a half seconds With oxalated plasmas the prothrombin times averaged about one second longer The thromboplastin suspension described is applicable to Quick's procedure with oxalated plasma, but we have abandoned oxalate collection because the two successive crops of calcium oxalate crystals formed (one on blood sample collection and one on recalcification) absorb appreciable, if variable, amounts of prothrombin [11 12] The opacity of the recalcified oxalated plasma also vitiates the use of opacification as an end point and does not permit scrutiny of the amount of filar fibrin in the reaction mixture It is a distinct impression, although not as yet proved, that this reticulum is increased in amount in thrombotic and hypercoagulability states This information may be of value to the clinician

It is also advocated as part of the prothrombin determination that the tubes in which the tests have been performed be capped and placed in the incubator overnight It has been found in some instances that the clots formed by the test will undergo spontaneous liquefaction (fibrinolysis) and that such liquefaction appears to be accelerated in subjects receiving dicumarol [3] Whereas the rate of fibrinolysis appears to be related inversely to the thrombin concentration of the plasma, there is a direct relationship between the clinical progress of the patient and the rate of fibrinolysis It appears that many such subjects will continue to show increased fibrinolysis rates even though the prothrombin concentration is rising because of discontinuance of dicumarol therapy [12] It is believed the reporting of the presence or absence of fibrinolysis may be of value to the clinician

The collection of blood samples in dry oxalate for prothrombin testing is not advocated Contact with the powdered material imitates the prothrombin-thrombin conversion before coagulation is arrested by solution of the oxalate and before the conversion is intended in the test proper This premature conversion may explain many of the encountered instances of abnormally short "normal" prothrombin times which have served as an additional mental or psychologic hazard in anti-coagulant therapy

Summary

The preparation of a clarified thromboplastin suspension, conservable in the frozen stage, is described along with notes on its application to the prothrombin time determination of blood plasma

A portion of the experimental work upon which this report is based was executed on the laboratory services of the Halloran General Hospital Staten Island and the Veterans Administration Hospital Batavia.

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ARE YOU PLANNING TO ATTEND THE ANNUAL CONVENTION OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, MAY 2 TO 6, 1949, HOTEL STATLER, BUFFALO?

SINOAURICULAR BIGEMINY

MILTON SCHLACHMAN, M D , Corona, New York

(From the Department of Medicine, New York Medical College, Metropolitan Hospital Service)

UP TO the present the medical literature contains but few references to extrasystoles originating in the sinoauricular node, and none of the more popular and standard textbooks on electrocardiography discuss or illustrate this arrhythmia.[1-6] This would seem to indicate that premature systoles of sinoauricular origin are extremely rare or that the arrhythmia has been overlooked because it simulates other arrhythmias so closely as to be wrongly diagnosed That this disturbance is not too common may be explained by the fact that the farther away the extrasystolic center is from the chief centers in the heart, the more common are the extrasystoles Thus, ventricular extrasystoles originating in the deeper specific tissue are most common, and those coming above the bifurcation of the common bundle are rarer, as are those originating in the auricular-ventricular node

This arrhythmia must be differentiated from a sinus arrhythmia, a 3 2 heart block, premature auricular systoles originating near the sinoauricular node, and a sinoauricular block. An important diagnostic point which was originally expressed by Lewis and Wenckebach and emphasized in subsequent reports is that the returning cycle following the extrasystole should be no longer and may be shorter than the normal cycle.[1,6]

The resemblance of this condition to a respiratory arrhythmia is so great that one may suspect that many cases of sinoauricular extrasystoles have been misinterpreted as a respiratory arrhythmia. As the premature beat originates in the sinoauricular node, the configuration of the P waves is exactly that of the normal sinus beat However, Scherf has pointed out that deformation of a normal sinus P wave may occur as a result of a change in the intra-auricular conduction, and Langendorf and Mintz report a case of sinoauricular premature beats in which the P waves are slightly different from the normal sinus P waves.[4,5]

The following case is being reported because of the rarity of the condition and because a probable causative factor is indicated.

Case Report

The patient was a fifty-six-year-old Puerto Rican cook who had been in this country for twenty-four years. He was admitted to the hospital on March 1, 1947, with the chief complaints of loss of the sense of smell for the past year, dyspnea on stair climbing in the past six months, difficulty in swallowing of three months duration, weakness in the legs of three weeks duration, and a loss of 10 pounds in the past three weeks

History

The present illness dated back three years when, every morning on awakening, he experienced sharp epigastric pain which was relieved by eating The bowel habits had been regular until three weeks previously when a diarrhea of three to four stools daily occurred This diarrhea was not characteristic and contained no evidence of upper or lower gastrointestinal bleeding One year ago there was a sudden anosmia For the past three months, food had seemed to stick in his throat and move down slowly However, there was no dysphagia, nausea, or vomiting A poor appetite had been present for the past month and was associated with a great weakness and loss of 10 pounds Shortness of breath on climbing two flights of stairs had been noted in the past six months There was no history of paresthesia or anesthesia The past history revealed syphilis in 1922 for which he was treated in Puerto Rico

Physical Examination

Examination revealed a poorly nourished male who appeared chronically ill The pupils reacted sluggishly to light and accommodation, the conjunctivae were pale and the sclera slightly jaundiced

The tongue was smooth and reddened No lymphadenopathy was noted The lungs were normal The heart was normal except for an arrhythmia which gave the impression of a bigeminy The blood pressure was 115/65 The abdomen revealed no palpable organs or masses The reflexes were normal and vibratory sense was intact

Laboratory Examination

The following data were revealed The red blood cells numbered 1,630,000 on admission with a hemoglobin of 6 5 Gm. The white blood cells were 6,600, and the differential count showed polymorphonuclears 50 per cent and small lymphocytes 50 per cent There was marked anisocytosis and poikilocytosis. The color index was 1 5 Bone marrow smear revealed a marked hyperchromic macrocytic anemia. The urine showed a pH of 4.5, specific gravity of 1 018, albumin 1 plus. The blood urea nitrogen was 15 mg. per 100 cc., creatinine 1.3, and blood sugar 115 The sedimentation rate was 1 in fifteen minutes and 25 in one hour The Wassermann test was negative. The stools were negative for ova and parasites. The icteric index was 7 and the Van den Bergh reaction negative Cephalin flocculation test was negative, phosphorus 2.9, phosphatase 1.9 Armstrong-King units. Total

TABLE 1.—Results of Treatment of Patients with Neoantergan

Allergic Condition	Number of Cases	Relief	No Relief	Percentage Relieved
Hay fever	96	67	29	69 8
Vasomotor rhinitis	22	13	9	59 1
Bronchial asthma	15	2	13	13 3
Acute urticaria	1	1	0	100 0
Chronic urticaria	2	1	1	50 0
Allergic eczema	1	0	1	0 0
Pruritus	1	1	0	100 0
Angioneurotic edema	1	1	0	100 0
Vernal catarrh	1	0	1	0 0
Contact dermatitis	1	1	0	100 0
Totals	141	87	54	61 7

TABLE 2.—Side Reactions in 35 Cases (24.8 Per Cent) Treated with Neoantergan

Side Reaction	Number of Cases
Drowsiness	13
Nausea	11
Diarrhea	11
Abdominal cramps	8
Headache	4
Dizziness	3
Tachycardia	3
Weakness	2
Sweating	2
Pruritus	2
Tiredness	1
Dryness of mouth	1
Vomiting	1
Palpitations	1
Nervousness	1

allergic diseases The dose was 50 mg, administered three times a day When relief was obtained, the patients were instructed to take the drug only when necessary to ameliorate any recurrence of symptoms

The symptomatic results and the toxic reactions were tabulated The types of side reactions were also noted Each of the patients reported as having side reactions had one or more Those that were classified as obtaining relief had to show a satisfactory amount to be so considered In some patients Neoantergan had to be discontinued owing to the severity of undesirable reactions Where toxic reactions were not too severe, the patient was able to continue the drug at a reduced dosage and frequency In many cases the toxic reactions would disappear with continued use of the medication The relief obtained was only temporary and seldom complete One third of the patients experienced alleviation intermittently, that is, they would be relieved at one period of time and not at another Some individuals were benefited when they began to use the drug, but later on it failed to take effect The other two thirds showed improvement quite consistently The results are shown in Tables 1 and 2

Summary and Conclusions

Neoantergan was given to a series of 141 patients having various allergic disorders There was over-all relief in 61 7 per cent of the cases The best results were obtained in hay fever and vasomotor rhinitis Bronchial asthma gave the poorest results Toxic reactions occurred in 35 of the 141 cases, a percentage of 24 8 The drug was palliative in all cases The antihistaminic drugs are supposed to act by competing with the liberated histamine in their attachment to the receptor cells in the same way that the sulfonamides are supposed to compete with para aminobenzoic acid Therefore, only symptomatic relief, which lasts but a few hours, is obtained from each dose of the drug The determination of the offending allergen and its elimination or desensitization is still indicated The antihistaminic drugs can only be considered as a valuable adjuvant

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PROGRESS NOTE

The midwinter meeting of the Council of the Massachusetts Medical Society, held on February 2, would have been of particular significance because of one fact alone That was the unanimous approval of the action of the Executive Committee in authorizing the Secretary to proceed, as an agent of the American Medical Association, in collecting the assessment that the Association has levied on its members

Of further significance was the Secretary's report that within two weeks of the mailing of the notice more than 1,500 checks have been received from over a quarter of the society's fellowship, some of the contributions being for sums in excess of that called for Remarkably few direct refusals to contribute have been received, some of the fellows of the society have expressed their desire to withold their contributions until assurance can be given that the American Medical Association will use the fund wisely and constructively

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FIG 1 Electrocardiogram (lead II) taken on March 3 showing bigeminal rhythm

cholesterol was 196, cholesterol esters 94, total serum proteins 6 7, albumin 4.5, globulin 2 2, and the albumin-globulin ratio 2 The blood sodium was 329 mg per cent, potassium 16, and chlorides 598 The gastrointestinal series was negative An otolaryngologic consultation revealed an atrophic rhinitis The final diagnosis was pernicious anemia

Electrocardiography

Figure 1 shows a bigeminal rhythm which at first glance would seem to be a respiratory arrhythmia However, with a cardiac rate of 80 per minute, the patient would have to have a rhythmic respiratory rate of 40 per minute—actually his rate was 18 per minute—in order to produce such a regular respiratory arrhythmia. The P-R interval of the normal sinus beat is 0 12 and that of the premature sinus beat is exactly the same The P-P interval between the preceding normal P wave and the premature P wave is 0 68 second, while the P-P interval between the premature P wave and the following normal P wave is 0 96 second

As the returning cycle after the extrasystole is longer than the preceding cycle, this would seem to cast doubt on the impression that these premature beats are of sinus origin However, as there are no two succeeding normal beats, the returning cycle is not necessarily longer than a normal cycle would be As each normal beat is followed by a premature one, alternating length cycles are bound to occur A premature auricular beat originating near the sinus node would conceivably give a similar picture, but here one would expect the P waves not to simulate the sinus P wave exactly

A sinoauricular block can be dismissed by the fact that the P-P interval between the premature P wave and the subsequent P wave should be twice the length (1 36 seconds) of the P-P interval which immediately precedes the premature beat Where a sinoauricular block is less than twice the length of two normal beats, it will not be as short as 0 96 second Usually, in a sinoauricular block the P-R interval after the blocked beat is shorter than the normal conduction, and no varying P-R interval is present here

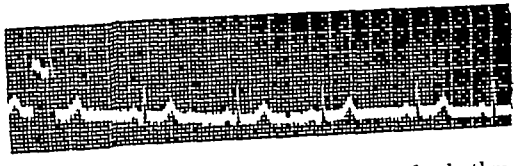


FIG 2 Deep inspiration—bigeminal rhythm has been replaced by a sinus arrhythmia of the nonphasic type



FIG 3 Deep expiration—re-establishme bigeminal rhythm.

A 2 1 block is not present as every I followed by a QRS complex

Figures 2 and 3 represent lead II taker breath held in deep inspiration and deep e respectively In Fig 2 the P-P intervals 0 96, 0 92, 0 84, 0 92, and 0 76 second geminal rhythm has been eliminated and re a sinus arrhythmia of the nonphasic type known that deep respiration will cause a vagal tone which may give rise to an a stimulus formation within the sinoauricu Evidently, the vagal stimulation was stro to eliminate the sinoauricular extrasystol

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FIG 4 Recorded during the application c sinus pressure

Figure 4 was recorded during the appli carotid sinus pressure The P-P interval the preceding normal P wave and the pren wave remains constant at 0 68 of a second ever, the P-P interval between the pren wave and the subsequent normal P wave slight variation between 0 92 and 1 0 second 5 taken after carotid sinus pressure had ceas cycles of 0 96 second alternating regularly intervals of 0 68 second

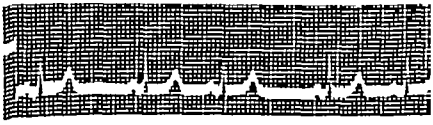


FIG 5 Record taken after carotid sinus had ceased

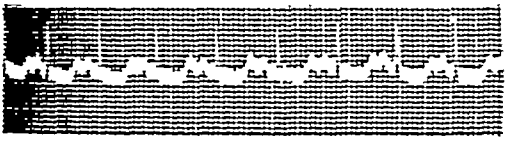


FIG. 6 Electrocardiogram taken during the inhalation of amyl nitrite showing disappearance of arrhythmia and replacement by tachycardia

The carotid sinus pressure exerted enough influence on the regular sinus impulse formation to cause a slight nonphasic sinus arrhythmia but did not influence the formation of the premature beats which always came at a regular interval after the normal beat A fixed coupling exists between the normal and the premature beat

Figure 6 was taken during the inhalation of amyl nitrite The arrhythmia has disappeared and is replaced by a tachycardia of 130 beats per minute The P-R interval is 0 12 second, which is the same as that before the inhalation of amyl nitrite, and there is a regular P-P interval of 0 42 second.

As often happens with amyl nitrite, extrasystoles are dissipated This is probably due to a shortening of diastole so that extrasystoles cannot appear However, an increased sympathetic tone as a result of the fall in blood pressure or a better nourishment of the sinoauricular node because of coronary artery dilatation may also play a role

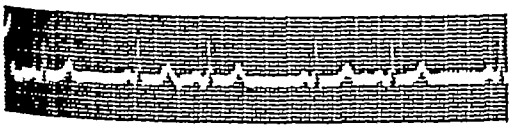


FIG 7 Electrocardiogram taken on March 21, 1947, showing persistence of bigeminy

Figure 7 was taken on March 21, 1947, at which time the red blood count was 1,580,000 and the hemoglobin 7 5 Gm The bigeminy still persisted three weeks after recording the first tracing The P-P intervals alternated regularly between 0 68 and 0.98 second.

Figure 8 was taken on April 25, 1947 at which time the red cells were 3,820,000 and the hemoglobin 13 Gm. The bigeminal rhythm had disappeared and had been replaced by a sinus arrhythmia which is proved by the irregular P-P intervals of 0 76, 0 76, 0 76, and 0 68 second. Thus, with an improvement



FIG 8 Electrocardiogram taken on April 25, 1947 Bigeminal rhythm has disappeared and been replaced by a sinus arrhythmia

of the blood picture, the bigeminal rhythm has disappeared

Discussion

It is realized that the criticism may be offered that the postextrasystolic period is longer than the pre-extrasystolic period, and, therefore, in reality a compensatory period exists after the premature beat which makes it of doubtful sinoauricular origin, for the returning cycle should be only as long as that of a normal beat

Unfortunately, no recording of two successive normal beats were obtainable in the tracings so that it is difficult to state just how long a normal cycle may be The identical contour of the P waves in the tracings in both the normal sinus beats and the premature sinus beats makes the diagnosis of premature auricular systoles arising near the sinoauricular unlikely One would expect some deformation of the P waves and a variation in the transmission of the impulse if the latter were so Langendorf and Mintz in their second case state that the diagnosis between sinoauricular extrasystoles and premature auricular contractions may be difficult but also base their diagnosis on the similarity of the premature P waves and the normal sinus P waves [3] In addition, they are not able to compare the postextrasystolic period with the normal sinus P-P intervals, for, as in the case described here, their tracing does not show successive normal sinus beats

The case reported by Geiger and Goener shows tracings which are similar to our own [2] Fortunately, in their report there are two normal sinus beats in succession which show that the normal P-P intervals are similar to the intervals between the premature P waves and the following P waves A comparison of their tracings and those reported here show an identical picture

Langendorf and Mintz in their first case of sinoauricular extrasystolic bigeminy also show tracings similar to those pictured here [3] Lead I in their report shows a normal sinus rhythm, and they are able, therefore, to measure the normal P-P intervals and compare them to the premature P wave and subsequent P wave intervals Nevertheless, the cycle following the premature beat is longer than the preceding cycle which is not unlike the tracings in this case report

A sinoauricular block occurring in a patient who had not received digitalis is indeed a great rarity Moreover, one would not expect a sinoauricular block to remain stable for a period of three to four weeks A sinoauricular block, with a constant blocking of every third impulse to give rise to a 3 2 block, of this duration has never been reported to my knowledge

It seems probable that the sinoauricular extra-



FIG 1 Electrocardiogram (lead II) taken on March 3 showing bigeminal rhythm

cholesterol was 196, cholesterol esters 94, total serum proteins 6 7, albumin 4.5, globulin 2 2, and the albumin-globulin ratio 2 The blood sodium was 329 mg per cent, potassium 16, and chlorides 598 The gastrointestinal series was negative An otolaryngologic consultation revealed an atrophic rhinitis The final diagnosis was pernicious anemia

Electrocardiography

Figure 1 shows a bigeminal rhythm which at first glance would seem to be a respiratory arrhythmia However, with a cardiac rate of 80 per minute, the patient would have to have a rhythmic respiratory rate of 40 per minute—actually his rate was 18 per minute—in order to produce such a regular respiratory arrhythmia. The P-R interval of the normal sinus beat is 0 12 and that of the premature sinus beat is exactly the same The P-P interval between the preceding normal P wave and the premature P wave is 0 68 second, while the P-P interval between the premature P wave and the following normal P wave is 0 96 second

As the returning cycle after the extrasystole is longer than the preceding cycle, this would seem to cast doubt on the impression that these premature beats are of sinus origin. However, as there are no two succeeding normal beats, the returning cycle is not necessarily longer than a normal cycle would be As each normal beat is followed by a premature one, alternating length cycles are bound to occur A premature auricular beat originating near the sinus node would conceivably give a similar picture, but here one would expect the P waves not to simulate the sinus P wave exactly

A sinoauricular block can be dismissed by the fact that the P-P interval between the premature P wave and the subsequent P wave should be twice the length (1 36 seconds) of the P-P interval which immediately precedes the premature beat Where a sinoauricular block is less than twice the length of two normal beats, it will not be as short as 0 96 second. Usually, in a sinoauricular block the P-R interval after the blocked beat is shorter than the normal conduction, and no varying P-R interval is present here

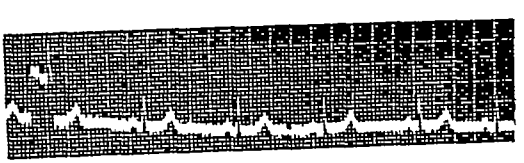


FIG 2 Deep inspiration—bigeminal rhythm has been replaced by a sinus arrhythmia of the nonphasic type



FIG 3 Deep expiration—re-establishment of the bigeminal rhythm.

A 2 1 block is not present as every P wave is followed by a QRS complex

Figures 2 and 3 represent lead II taken with the breath held in deep inspiration and deep expiration, respectively In Fig 2 the P-P intervals are 0 64, 0 96, 0 92, 0 84, 0 92, and 0 76 second The bigeminal rhythm has been eliminated and replaced by a sinus arrhythmia of the nonphasic type It is well known that deep respiration will cause a change in vagal tone which may give rise to an arrhythmic stimulus formation within the sinoauricular node Evidently, the vagal stimulation was strong enough to eliminate the sinoauricular extrasystoles

Figure 3 which was taken in deep expiration shows a re-establishment of the bigeminal rhythm. The P-P intervals alternate regularly and constantly between 0 72 and 0 96 second, which re-establishes the bigeminal rhythm at a rate slightly different from that seen in Fig 1 Nevertheless, a similar arrhythmia is present

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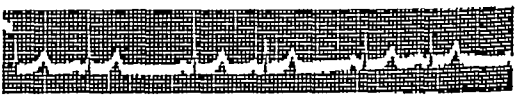


FIG 4 Recorded during the application of carotid sinus pressure

Figure 4 was recorded during the application of carotid sinus pressure The P-P interval between the preceding normal P wave and the premature P wave remains constant at 0 68 of a second However, the P-P interval between the premature P wave and the subsequent normal P wave shows a slight variation between 0 92 and 1 0 second Figure 5 taken after carotid sinus pressure had ceased shows cycles of 0 96 second alternating regularly with P-P intervals of 0 68 second

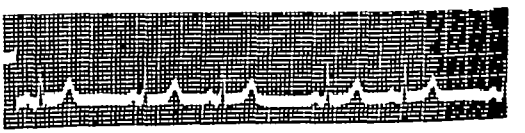


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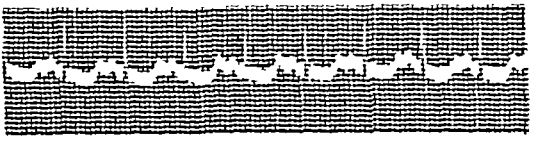


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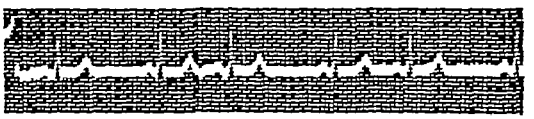


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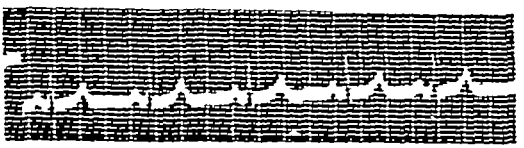


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systolic bigeminy in this case was caused by the anemia Until the blood picture rose to approach that of normal, the sinoauricular extrasystoles persisted We realize that the critical experiment would have been to permit the treatment of the pernicious anemia to lapse and see whether re-establishment of the extrasystoles occurred with a relapse of the blood picture However, we did not feel that such a drastic procedure was justifiable

Summary

1 A case of sinoauricular bigeminy is presented and the reasons for arriving at this diagnosis given

2 A probable causative factor, i e , anemia, is proposed

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CONGENITAL CONTRACTURE OF THE FIFTH FINGER

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(From the Arthritis Clinic, Fourth Medical Division (New York University), Bellevue Hospital)

CONGENITAL contracture of the digits, notably of the fifth finger, so often, in the experience at our clinic, leads to the diagnosis of rheumatoid arthritis, other arthropathy, or Dupuytren's contracture, that we are presenting the four cases in this report to emphasize the importance of recognizing these anomalies A more serious diagnosis is especially likely to be made when myalgias or arthralgias are associated in other joints or if changes in the articular or soft tissues are present in the affected digits

A wide variety of digital anomalies has been reported These are discussed extensively by Gates who makes the statement, "Probably more abnormalities are known of the hands than of any other part of the body except the eye "[1] Those which have been sufficiently common or distinct to be described as specific entities are included in Table 1 [1-4]

Congenital contracture of the little finger is one of the most frequent of the inherited digital anomalies It was termed streblomicrodactyly (Gr *strables,* bent, *micro,* small, *dactylos,* finger) by Hefner [5] Although camptodactyly (Gr *kamptos,* bent, *dactylos,* finger) has sometimes been used synonymously, it really refers to flexion of any of the fingers The appropriate suggestion has been made that camptodactyly shall be used in this general fashion to denote hereditary bending of any finger, while streblomicrodactyly is reserved to designate only flexion in the little finger, a special form of camptodactyly [6]

This congenital anomaly has a definite familial incidence The mode of inheritance appears to be that of a simple Mendelian dominant trait [7 8] The condition is bilateral and symmetric It is characterized by a flexed position of the proximal interphalangeal joints of the fifth fingers and often of the fourth fingers [9] The defect is present at birth According to Magnusson, it tends to remain static until about the tenth year The flexion at that period usually progresses for a time and is then arrested, recommencing again for a year or two at the age of sixteen or eighteen After twenty years there is virtually no advancement of the deformity, and the flexion rarely exceeds 90 degrees The affected finger cannot be extended or abducted to any degree Hyper-

TABLE 1 —CONGENITAL ANOMALIES OF THE DIGITS

Polydactylism—supernumerary digits.
Macrodactylism—congenital hypertrophy of one or more digits.
Ectrodactyly—suppression of digits Fingers may be deficient in number length or both
Brachydactyly—abnormal shortness of the digits usually there are only two phalanges in such fingers
Apical dystrophy— a form of shortened fingers to a lesser extent in toes manifested by absence of the terminal portion of fingers 2 to 5 with nearly or quite complete absence of nails [1]
Split hand or foot— lobster claw
Symphalangism—fusion of the proximal and middle phalanges into one in the ring and little fingers
Congenital ankylosis of the index finger at any of the interphalangeal joints
Clinodactyly—fingers bent in the radial direction. Deviation may also be ulnar
Camptodactyly—congenital flexion of fingers
Streblomicrodactyly—congenital flexion of the fifth finger

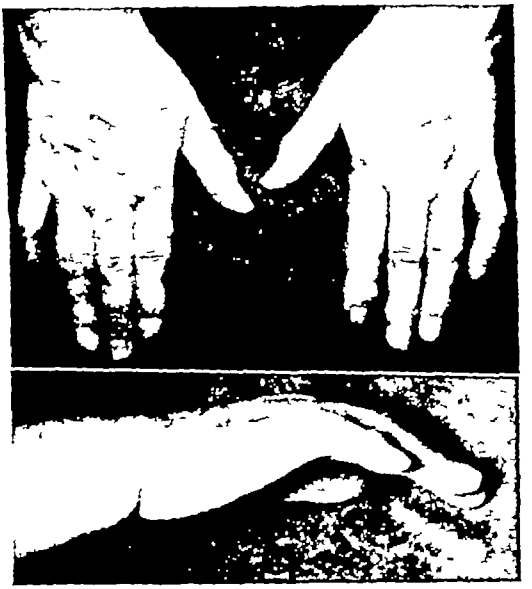


FIG 1 Congenital contracture of all fingers, more severe at each fifth digit, in a patient with Heberden's nodes Side view shows the natural flexion position of the fingers

extension at the metacarpophalangeal joint is associated The distal interphalangeal joint may also be affected There are no local cutaneous, articular, or periarticular changes apart from the flexion, unless some complication arises

The pathogenesis of the anomaly is not clear Hefner has attributed it to shortening of the flexor digitorum sublimis tendon of the little finger [8] Magnusson implicates faulty development of the articular surface of the proximal interphalangeal joint [9] The incidence of this condition is difficult to ascertain, but is high enough to be borne in mind Occasionally, it may be part of a generalized congenital flexion of the digits simulating a widespread polyarthropathy (Fig 1)

This anomaly may be confused with rheumatoid or other arthritis or with Dupuytren's contracture The history of digital flexion since childhood, the absence of progressive arthropathy or of destructive articular changes, and the lack of systemic signs of rheumatoid arthritis should exclude the latter disease In rare cases the rheumatoid process may develop in a patient with streblomicrodactyly Dupuytren's contracture is distinguished from this congenital contracture by its common unilateral distribution, especially in the early stage, frequent alterations of the palmar skin, its onset at an advanced age, and its progressive changes with flexion, usually most marked at the metacarpophalangeal articulations In our experience rheumatoid arthritis, and commonly osteoarthritis, is the disease with which streblomicrodactyly is most apt to be confused, especially when myalgia, arthralgia, peritendinitis, other tendon changes, or even coincidental degenerative changes in the digital joints, are present

The following patients gave a history of congenital anomaly, but a familial incidence could not be traced They are cited to illustrate the clinical simulation of arthropathy, especially rheumatoid

Case Reports

Case 1 —Mrs J H., a twenty-six year-old married nurse, complained of pain and stiffness of the fingers of one year's duration. There had been no swelling (Fig 2) Vasomotor disturbances were present at the digits During this time she had suffered from "nervous stomach" and many emotional tensions The patient had been treated with analgesics and physiotherapy She was referred for confirmation of the desirability of chrysotherapy for her unresponsive "rheumatoid arthritis" Physical examination was negative, excepting the congenital flexion of each fifth finger

Sedimentation rate was 2 mm per hour, blood uric acid 2 2 mg per cent, complete blood count normal, urinalysis negative, and blood Wassermann negative The congenital nature of the marked flexion of the fifth fingers and the slight flexion position of all of the digits was brought out finally by a detailed history-taking The harmless nature of the finger flexion was explained Its independence of the local aches and vasomotor symptoms were reassuring to the patient She was soon greatly relieved of the superimposed symptoms by moving to her own apartment instead of residing with her critical inlaws who were evidently the source of great emotional conflict.

Case 2 —A B , a female physician in the fifth decade, came to our attention because she feared she was developing rheumatoid arthritis She had felt pains in her hands and at various joints for five to six months At the beginning of this period she thought she had noticed increased flexion deformity of the fifth fingers associated with the multiple myalgias She worried about this and, after efforts at self-treatment, decided to get another opinion Examination and tests revealed no basis for the com-

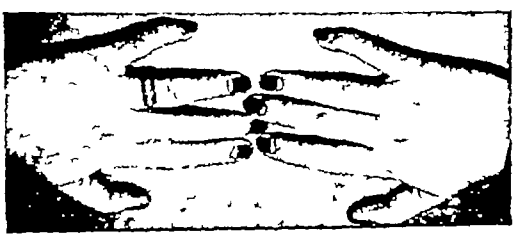


FIG 2 Congenital contracture of the fifth fingers.

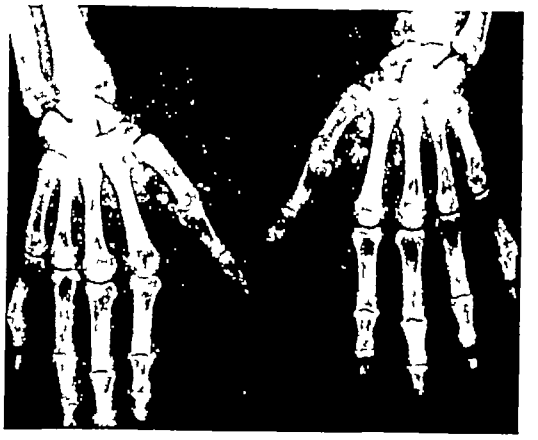


FIG 3 Roentgenographic appearance of congenitally contracted fifth fingers

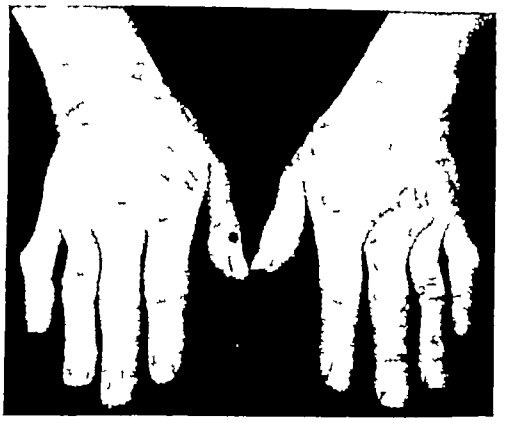


FIG 4 Congenital contracture of the fifth fingers with overlying cystic tendinitis at the proximal interphalangeal joints

plaints other than simple contracture of each fifth finger (Fig 3) On close questioning she recalled that contractures of her fifth fingers were present as far back as she could remember in childhood with slight if any actual increase in later years After reassurance that the changes in her fifth fingers were evidently congenital, she agreed that the history made this interpretation most logical Her other symptoms quickly subsided with this reassurance

Case 3 —Mrs P , a fifty-five-year-old housewife, was under treatment in our clinic for complaints associated with osteoarthritis involving also the digital joints As an incidental finding, streblomicrodactyly was noted, with overlying cystic tendinitis on the left (Fig 4) Here again the original flexion peculiarity was forgotten, and the seriousness of the arthropathy was exaggerated by concern over the flexion and its distorted appearance given by the tendon changes

Case 4 —Mrs N S , a fifty-eight-year-old housewife, suffered from pains in the hands associated with osteoarthritic changes of the joints with Heberden's nodes at the finger tips The clinical picture of arthritis was distorted by the congenital flexion contractures of all fingers, more severe at the fifth fingers (camptodactyly and streblomicrodactyly) The patient knew of the congenital nature of the defects and requested the examining physician not to be influenced by these changes in evaluating her condition and planning treatment, as had occurred in the past

The treatment of congenital contracture of the fifth finger has not been standardized When seen early, extension exercises, massage, and traction have been recommended For the later decades, various surgical procedures have been suggested In the experiences of one of us (O S) based on other cases not included here, it may be stated that this congenital deformity is usually an innocuous, asymptomatic anomaly, requiring no treatment Radical intervention is indicated on the rare occasions when the flexion contractures interfere with the patient's occupation. The condition is important chiefly for its recognition and differentiation from the more serious disorders it may suggest

Summary

1 The salient features of streblomicrodactyly as a hereditary congenital anomaly of the fifth finger have been presented

2 The tendency to confuse this entity with rheumatoid arthritis, other arthropathy, or with Dupuytren's contracture has been noted

3 The condition is important chiefly for its recognition as a benign, relatively nonprogressive, anatomic peculiarity

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THERE IS STILL TIME TO PLAN TO ATTEND THE 143RD ANNUAL CONVENTION, MAY 2 TO 6, HOTEL STATLER, BUFFALO

THE EFFECT OF ANTIRETICULAR CYTOTOXIC SERUM ON PATIENTS WITH OSTEOARTHRITIS

Louis W Granirer, M D , Broad Channel, New York

(From the Arthritis Clinic, Department of Medicine, New York Post-Graduate Medical School and Hospital)

SERUMS commonly used in medicine to help cure infectious diseases are made from the blood of animals injected with increasing doses of the bacteria or toxins responsible for these diseases The resulting serums contain specific antibodies Similarly, antireticular cytotoxic serum is made from the blood of animals injected with increasing doses of suspensions of human tissue belonging to the reticuloendothelial system, such as the spleen and bone marrow The antibodies present are directed against the human reticuloendothelial tissue cells It was maintained by Bogomolets and his school that this specific cytotoxic serum, when administered in very small doses, does only negligible harm and stimulates the reticuloendothelial system to greater activity [1] When injected into man in large doses, this serum is capable of paralyzing the reticuloendothelial system. This is only another application of the Arndt-Schulz law which provides that weak stimuli increase physiologic activity and very strong stimuli inhibit or abolish activity [2]

It is well known that the reticuloendothelial system includes the macrophages of the loose connective tissue, the reticular cells of the lymphatic and bone marrow tissue, the star-shaped Kupffer cells of the liver, the flat "littoral" (adventitious) cells about the blood vessels, the "dust" cells of the lungs, and both the white and red pulp of the spleen.[3] Macrophage cells of the nerve tissue are called "microglia" cells [4] Wherever located, the macrophages in these widely scattered parts of the body may be set free to wander under the influence of appropriate stimuli. Thus, they take their part in inflammation and destruction of blood cells, and in the bone marrow and lymphatics they are concerned with the production of new red and white blood cells Bogomolets ascribed additional important functions to the reticuloendothelial system

1 A growth function including the regulation of cellular nutrition and metabolism and involving the processes of oxidation, repair, alteration of capillary permeability, and storage. This trophic function is important in its effect on normal or premature aging of the tissues.

2 A plastic function effecting the healing of wounds, ulcers, and fractures and the regeneration of tissues

3 A protective function—the well-known scavenging action of the macrocytes—not only against disease organisms but also against abnormal growths

4 An autoregulative function connected with the hormones Apparently, good health depends on the proper functioning of the reticuloendothelial system.

Method

The following study was planned to observe the effect of antireticular cytotoxic serum on patients with osteoarthritis picked at random in our clinic

The antireticular cytotoxic serum is prepared in the following manner Reticuloendothelial cells from man (spleen and bone marrow) are injected into rabbits until a titer of 1 100 has developed in the rabbits' blood The serum is withdrawn and separated by centrifugation and after standardization is dried from the frozen state and dispensed in vials.* It requires only dilution to ten times the original volume with physiologic saline solution to yield the serum ready for injection in humans The first injection, subcutaneously, is 0 5 cc. of the diluted serum, the second 1 0 cc , and the third injection 1 5 cc , each given at intervals of two or three days A series consists of a course of three injections Six weeks rest period was allowed between courses

Within the past year sixteen patients with osteoarthritis were treated with this serum Sensitivity to rabbit serum was ruled out by skin testing each patient Except for four patients, each case received one or two additional series of treatments, and all were observed for one year

Results

In the absence of any specific statistics, almost any form of treatment in chronic arthritis seems to produce about 20 per cent arrest, 30 per cent improvement, and 50 per cent of failure [5] In the follow-up study here, it was noted that the arthritis in over 80 per cent of the patients became as severe as it had been in the pretreatment period The toxic manifestations, urticaria, and fever in 50 per cent of the cases were quite marked. The final results here were not impressive, and the beneficial effects, if any, were short-lived The use of this serum in these cases with osteoarthritis was no more effective than the accepted treatment of rest, physical therapy,

* Generously supplied by Wyeth Inc. as Wyeth ACS.

orthopedic treatment, improved nutrition, psychosomatic medicine, climate, correcting metabolic disturbances, and rehabilitation

Summary

Sixteen patients with osteoarthritis, ages forty-nine to seventy-two with symptoms of from six months to twenty years duration, were treated with antireticular cytotoxic serum according to the schedule described Only two patients showed marked improvement at the end of the year Four patients had slight improvement, and the remaining ten had no benefit from the treatment Fifty per cent of the patients showed marked local reactions to the serum, followed by generalized urticaria, chills, and fever

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SUGGESTION FOR A SIMPLIFIED OPHTHALMOSCOPE, OTOSCOPE, FLASHLIGHT DIAGNOSTIC INSTRUMENT

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WHAT we have here to suggest is no new instrument but rather a simplification of one of the most frequently used electrically illuminated diagnostic instruments This simplification has developed as a result of the impracticability found by the author in the use of the ophthalmoscope and otoscope in the past few years, first while in an evacuation hospital in the Army and more recently while a house officer in a busy general hospital This simplified instrument has proved both convenient and efficacious *

The ophthalmoscope-otoscope instruments available and in use at present are all unnecessarily complex and cumbersome They cannot easily or gracefully be carried in the pocket The alternative is to leave the instrument in its case in some central location to be fetched when needed This practice results in two unfortunate occurrences We are apt to neglect certain parts of an examination, perhaps an important part, rather than take the time to get the ophthalmoscope or otoscope Second, when these instruments are left unattended they have a habit of disappearing in whole or in part

The May head and the ear speculum with a beam of light are the essential features of the ophthalmoscope and otoscope and are very effective tools for examining the inside of the eye and the ear However, the so-called operating

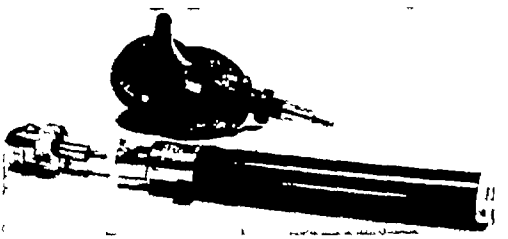


FIG 1 Entire instrument combination including battery handle, flashlight head, and ophthalmoscope head

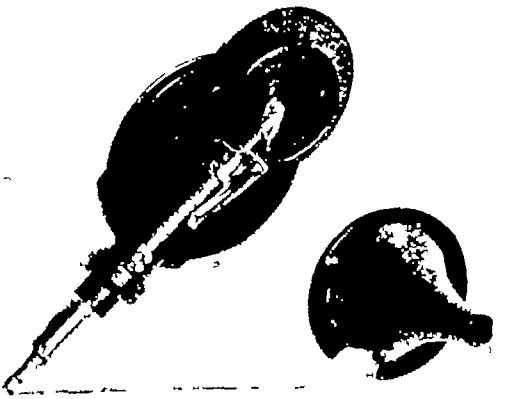


FIG 2 May ophthalmoscope head with otic speculum detached

* The instrument was manufactured for the author by Bausch and Lomb Optical Company Rochester New York

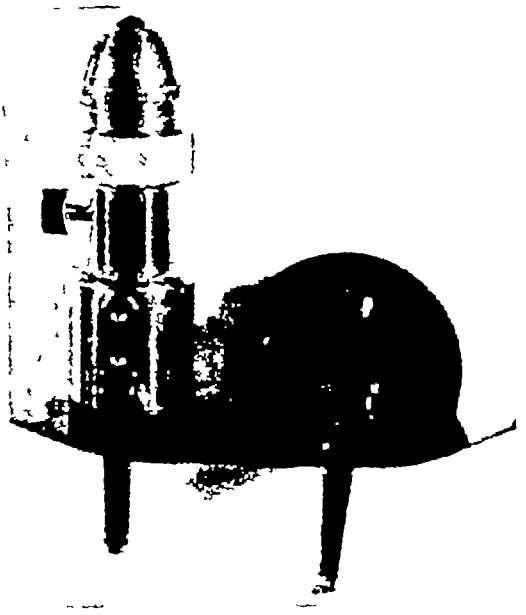


FIG 3 Method of carrying instrument in pocket, the battery handle and flashlight head as one unit and the ophthalmoscope-otoscope head as a separate unit

otoscope head is, in most cases, superfluous With the present extent of specialization most manipulation inside the ear is done by an otologist The great majority of physicians, and especially those in hospital training need an otoscope purely for diagnostic purposes We use these instruments more to be sure that there is no pathology present than to see whether there is If any pathology is found, the problem is, in most instances, referred to the proper specialist

With these facts in mind we have attached the otic speculum directly to the May ophthalmoscope head using the same optical system as a light source for illuminating the ear With this arrangement the ear canal and drum can be well visualized by looking through the +10, +12, +15, or +20 diopter lens One size speculum suffices for the great majority of examinations, the size depending on whether one deals with adults or children. Consequently, one detachable speculum fastened to the ophthalmoscope head, which is fitted with a metal clip, gives a compact instrument that can easily be carried in the pocket

Any size battery handle can be used with this ophthalmoscope-otoscope combination We have found most efficient to be the use of the pencil-size handle with a flashlight head attachment This flashlight also readily fits into the pocket For examination of the eye and ear the flashlight head is removed, and the ophthalmoscope-otoscope head is attached Together these instruments provide a readily available flashlight, otoscope, and ophthalmoscope The details are shown in the accompanying photographs (Figs 1,3)

NEW SYNTHETIC DRUG USED AGAINST PARKINSON'S DISEASE

Parpanit, a relatively new synthetic drug, is aiding victims of Parkinson's disease, also called the shaking palsy, according to Robert S Schwab, M D , and Denis Leigh, M.D , from the Department of Neurology and Psychiatry, Massachusetts General Hospital and Harvard Medical School, and the Brain Wave Laboratory, Massachusetts General Hospital, Boston, and based on a study of 50 patients Parpanit is one of the most efficient and least toxic of a number of related compounds developed in Switzerland The drug has desirable relaxing effects similar to derivatives of belladonna

Thirty-one of the group experienced more improvement from parpanit than they did from previous treatment with scopolamine, stramonium, or belladonna, other drugs used against the disease

The degree of improvement during parpanit therapy was usually about 25 per cent. Approximately half the 50 had a decrease in rigidity with increased freedom or speed of movement and greater ease in eating and talking, and about half noticed a decrease in tremor In 40 per cent of the group, symptoms had been present from one to five years, in 32 per cent from five to ten years, and in 28 per cent over ten years There was a fairly close connection between the duration of symptoms and severity of the disease

None of the 50 patients was bedridden Four additional bedridden patients with Parkinson's disease treated with parpanit were not significantly benefited. The disease developed following encephalitis in 38 cases and was associated with hardening of the arteries in seven cases.

No change from parpanit therapy was noticed in 11 patients, the effect of the drug being similar to that of previous treatment with scopolamine or stramonium. Eight were considered worse after parpanit therapy —*J.A.M.A , March 5, 1949*

BRONCHIECTASIS

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(From the Thoracic Surgical Service of Bellevue Hospital)

LESS than twenty years ago one of our standard medical texts disposed of the treatment of bronchiectasis in two lines by stating that it should be hygienic, dietetic, and symptomatic in character Since that time a voluminous literature dealing with all aspects of the subject abounds with proof that this forlorn outlook may be safely abandoned Surgeons interested in the problem believe that ample evidence also has been recorded to justify surgical approach as the procedure of choice in the attempt to cure these patients It is the intent of the writer to present some facts to support that contention

Several anatomic and clinical features of the disease bear significantly on this preference for surgery Bronchiectasis usually involves segmental adjoining bronchi in one or more lobes of the lung leaving other areas entirely normal It is not a uniformly progressive disease but may remain localized for years Extension has been regularly observed as the aftermath of the commonly repeated attacks of suppurative pneumonitis Bronchiectasis is almost always associated with parenchymal changes described as atelectasis or organizing pneumonitis which, in the long run, terminate as fibrosis and emphysema Moreover this disease quite often originates in youth with onset, estimated by some, at 40 per cent in the first decade and up to 70 per cent during the second decade

Although various theories have been advanced to explain all the features of this disease, many aspects still remain controversial Some permit repetition The role of true congenital defects is clearly illustrated by the association of situs inversus and bronchiectasis Perhaps this factor has been overstressed with insufficient attention being directed to the possibility of very early onset of acquired bronchiectasis in infancy and childhood Auspack and others have noted in infancy and childhood the presence of basal triangular shadows containing dilated bronchi which they have attributed to atelectasis [1] Some of these changes have reversed after bronchoscopy or other forms of bronchial drainage and have been labeled pseudobronchiectasis by Singer and Graham [2] Bronchial obstruction in some cases is a contributory factor It has not been constantly observed in many cases of proved bronchiectasis and, as in asthma, is not regularly accompanied by bronchiectasis However, such obstruction, accompanied by infection leading to atelectasis and parenchymal suppuration, favors its development or extension This point is of great importance and indicates the necessity of control of these factors by all necessary methods if the incidence of the disease is to be decreased by attack at the origin in early life The frequent occurrence of localized bronchiectasis after suppurative pneumonitis and lung abscess in later life lends support to the theory of parenchymal suppuration as the common origin of the disease The evidence linking definite organisms with this disease has not been conclusive

In summary, the pathologic material from autopsy and operative specimens indicates that bronchiectasis is a disease which often has its onset in early life and predominantly before the age of twenty It is a disease in which parenchymal and bronchial damage are regularly observed and have a reciprocal relation to each other both as cause and effect Pulmonary fibrosis and emphysema are the terminal results of repeated infection and progression and with the coexisting suppuration constitute the threat to health and life That this is a threat is illustrated by the fact that symptomatic bronchiectasis, unassociated with other disease, was demonstrated as the primary cause of death in 400 (2 2 per cent) of 18,100 consecutive autopsies for all causes of death in a recent survey at Bellevue Hospital Death occurred in 24 per cent of these cases before the age of fifty, all without benefit of definitive surgery These pathologic observations find parallels in the well-known clinical characteristics, some of which may have been regarded too lightly

The analysis of 146 cases of clinical bronchiectasis, admitted to the thoracic service of Bellevue Hospital over a three-year period yields material for thought While only 10 per cent of these cases were less than twenty years of age, 62 per cent were less than fifty Those in whom duration could be accurately determined had had symptoms for an average of at least eleven years They had been treated for these symptoms for from three to fifteen years During this time, as much as four years with repeated admissions had been spent as inpatients of various institutions Thirty patients had consumed one hundred five years of hospitalization Almost constant cough with copious, foul sputum had physically wrecked many of these unfortunates who often become social outcasts Recurrent

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pneumonia, hemoptysis, abscess formation, and empyema had cost much, not only in human suffering but also in monetary loss

Of the 146 patients only 44 were operated, in spite of the fact that the chief complaint and reason for admission was serious hemoptysis in 60 patients, recurrent pneumonia in 30 patients, unremitting, copious, foul sputum in 51, and empyema, lung abscess, and asthma in five Fifty patients over fifty and 22 between forty and fifty were denied surgery Since these ages do not constitute a general valid contraindication to surgery, the cited reasons for such a course gains significance The decided prominence of inadequate functional reserve, too extensive lesions, and poor general condition suggest that lack of early curative therapy had contributed to progressive deterioration in health It is likely that they represent the inroads of longstanding and inadequately treated disease This is the natural course and clearly reflected by both pathologic and clinical knowledge These few figures agree with and complement the opinion of innumerable other observers They warrant the statement that bronchiectasis is a chronic progressive disease which requires active treatment to prevent progression to chronic invalidism and fatality and that this treatment should be prompt once the diagnosis is established To the pediatrician may be delegated the preventive side of this effort in recommending the use of all measures to reduce pulmonary infection All other cases of established bronchiectasis should immediately fall to the care of the surgeon for decision as to the time and extent of operation unless contraindicated by acceptable criteria Such a program will prevent the steady march of the disease and obviate the necessity of heroic surgery in the terminal phase

It appears then that once a patient has come for treatment for the usually serious symptoms of established bronchiectasis the situation calls for therapy planned to culminate in surgical excision of the diseased area Early treatment must be so directed, since, in this disease especially, the success of subsequent surgery is very directly related to the efficiency of such preparation It generally requires the meticulous and persistent use of all measures to correct the ravages of long chronic illness Bed rest, adequate diet reinforced with proteins, vitamins, and minerals, and the free use of blood are indicated for the almost constant weight loss, protein and specific deficiencies, and anemia Concurrent sinusitis and oral sepsis as contributing factors merit prompt remedy Regular chemotherapy has yielded excellent aid, and the agents used may be advantageously based on a close study of the bacterial flora present

The local pulmonary condition needs attention in minute detail Bronchial drainage by postural, aspirational, or bronchoscopic measures must be rigidly practiced within the patient's tolerance The use of oxygen and mucosal shrinking agents in conjunction with properly prepared chemotherapeutic aerosols increases and accelerates the effectiveness of bronchial toilet A favorable response may be expected from the persevering use of these methods, and its degree may be readily estimated by the general clinical improvement in the acute and chronic expressions of disease and a decrease in the amount and change in character of the sputum It is well known that bronchiectasis typically exhibits remissions and exacerbations The physician responsible for this early care should not be lulled into inactivity and procrastination by the apparent improvement which may follow this treatment The remission should not be lost by the cessation of therapy Therapy should be maintained to provide an opportunity for further and better evaluation of the status of operability and the period during which the patient can face surgery in optimum condition with minimal risk

Bronchoscopy should be routine, for it may lend both diagnostic and therapeutic aid The origin of secretions and hemorrhage may be localized When the latter has been severe, this information is indispensable and perhaps life-saving Transient bronchial obstruction due to tenacious or dried exudate, ulcerative and granulating lesions, and foreign bodies, sometimes unsuspected, may be relieved with great benefit The observation of true stenosis or tumors may alter the entire plan of operation

Accurate outlining of the diseased area should be based on the previous clinical findings At Bellevue, Amberson has for years emphasized the persistence of rales as a guide to the area to be bronchogrammed With careful previous examination of the chest it often is not necessary to visualize the entire tree The association of lingular and middle lobe disease with lower lobe disease is so frequent that, in the presence of the latter, the former areas should be regularly visualized Where doubt exists, it is better to visualize any questionable area The importance of care in this work cannot be overstressed, since it controls the aim of surgery The surgeon must have correct information if he hopes to accomplish his twofold purpose of total ablation of the diseased area and the maximal preservation of functionally competent respiratory tissue Since the retention of contrast medium for four to six weeks in the lung is not unusual and may lead to postoperative atelectasis, pneumonitis, and other complications, delay

for perhaps four to six weeks after instillation is desirable An added safety factor is to operate during the warmer months of the year when acute upper respiratory infections are at a minimum During this interim it is advisable to keep the patient under close observation to maintain the remission, and one may also cultivate the use of thoracic exercises which proved so helpful during the war

Since operability is directly governed by the status of cardiorespiratory functional reserve, it must be evaluated closely The younger age groups usually have sufficient reserve to permit the very extensive resections reported by Blades and Graham [3] In the borderline type of the older age groups, technical measure of the reserve may be the only feasible basis for planning operation because of the extensive and profound pulmonary changes The brilliant work of Cournand and his associates has been of inestimable value in correlating the selection of cases and the extent of operation [4] This contribution well merits the praise it has received When lack of facilities precludes such tests, clinical evaluation must be extremely careful Although fairly reliable, its accuracy does not approach that of the more exact methods

Surgical intervention should follow promptly the decision that a case is operable The reasons are many and clear Less pulmonary tissue is sacrificed with minimal extent of the disease Operation is simplified if recurrent episodes have not obliterated or frozen the pleural space and fissures The remaining undamaged lung expands more readily to fill the thorax which decreases the incidence of fistula and empyema The most favorable time for operation coincides with the reduction or disappearance of sputum which can be expected to minimize postoperative atelectasis, pneumonia, and lung abscess A persistently high sputum output should arouse suspicion of unrecognized bronchial obstruction or underlying abscess In some of these, preliminary drainage and secondary excision has offered greater safety than primary excision Operation is often demanded by severe hemorrhage Certain excision of the offending area in extensive disease can be based upon bronchoscopic localization, but in less extensive disease thorough extirpation suffices

In recommending this method of treatment, one can support it with the record which should be reviewed with the same attitude that the armed forces had toward its wounded The combat groups called upon the medical department not only to save life but to return a maximum number to fighting duty Short dual purpose, nothing was accomplished combat forces Surgeons believe the shows that the judicious use of surgery similar prospect to more bronchiectatic p than any other method and that the road cures is marked by an earlier and more utilization of it A bright outlook has f the perfection of intrahilar dissection the progress in anesthesia, the free use of the correct selection and preparation of and newer concepts and knowledge of respiratory function and chemotherapy

Patients may be assured of the safety o tomy and/or segmental resection Th tality rates have gradually fallen to les 2 per cent in several recent series of cases lobectomy has carried a small complicatio particularly empyema and bronchopleu tulas, which is somewhat less than that mental resection They have not been enough to curb the use of these proc Pneumonectomy can be reserved for very sive unilateral disease and should often b bined with methods to prevent mediastin and compensatory emphysema of the rem lung The mortality rate, which has gr fallen, may be expected to be less than 5 p in well-selected series

When the procedure is correctly gau remove the diseased and poorly functionin without unnecessary sacrifice of lung, a ce of symptoms and recurrences and an im ment in respiratory efficiency has follow can be regularly forecast The extent gevity in some very extensive cases remain proved

A cursory reading of the literature forces to agree with Riggins who in 1941 stated morbidity and mortality of untreated medically treated bronchiectasis is such th physician who routinely advises young with operable bronchiectasis against surg assuming a large responsibility and in all ability renders his patient a great disser It is the surgeon's contention that this applies also to a large section of patients older age group

11 East 68th S

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Case Reports

AN UNUSUAL CASE OF ACQUIRED DEXTROCARDIA

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(From the Medical Division and Division of Pulmonary Diseases, Montefiore Hospital for Chronic Diseases)

FOLLOWING thoracoplasties, changes in the position of the heart and rotation of its axis may occur, the heart may be pulled into or pushed away from the collapsed side, cor pulmonale may occur, and electrocardiographic changes may or may not occur [1-3]

We wish to present a patient who, following thoracoplasty, developed unusual roentengologic and electrocardiographic findings

Case Report

The patient, J P , was a forty-year-old woman The onset of her disease was in 1931 with loss of weight, fatigue, and cough Pulmonary tuberculosis was diagnosed in 1932 with the sputum containing tubercle bacilli Right pneumothorax was induced in 1936, a pneumonolysis was done in 1937, which was followed by sputum conversion Because of obliterative pleurisy the pneumothorax was discontinued in 1938 The sputum turned positive again In 1939, bronchography and bronchoscopy showed occlusion of the right upper lobe bronchus Between March and June, 1943, a three-stage, nine-rib thoracoplasty and revision operation were performed on the right side The sputum was negative for some time but turned positive again Following the operations, cardiac pulsations were visible in the third, fourth, and fifth intercostal spaces, just to the right of the sternum No thrills or murmurs were noted

Roentgenologic examination showed a complete thoracoplasty on the right (Figs 1 and 2) No aerated lung could be seen on the right Heart and mediastinum were shifted to the right and seemed to be adjacent to the right lateral chest wall Because of this unusual radiologic appearance electrocardiographic studies were done

Five electrocardiograms were taken on the patient over a period of three years All the tracings were similar to those shown in Fig 3, which was taken several months before she died In Fig 3, the downward T waves in the three standard leads and precordial lead CF_4 are abnormal In other tracings T was also downward in precordial lead CF_2 In a previous paper, one of us (E G) pointed out that the downward T waves in the standard leads of this patient could be explained by the unusual position of the heart [4] However, changes in the position of the heart cannot explain the downward T waves in the precordial leads

The standard leads also show tall, thin P waves in leads II and III This pattern has been reported in cases of chronic cor pulmonale.[5] At autopsy the auricles were found to be normal, however

The patient developed a spread to the left lung and died in December, 1945, with the signs of respiratory insufficiency

The essential findings on autopsy were as follows The right pleural cavity is completely obliterated by fibrous scar tissue, no right lung is seen The heart is dislocated to the right and reaches the right thoracic wall to which it is attached by thin, easily torn adhesions The right lung is completely collapsed and located behind the heart in the apex of the thoracic cage to which it is firmly bound The left lung is markedly emphysematous and fills the entire left thoracic cage, it even extends somewhat over the midline to the right side

The right lung is markedly shrunken and fibrotic, about one third of the normal size The pleura is markedly thickened and covered with large sheets of parietal pleura and many fibrous tags The fissures are obliterated The lung is noncrepitant throughout The cut surface reveals dark, grayish, completely atelectatic parenchyma The posterior



FIG 1 Posteroanterior roentgenogram of the chest taken on July 14, 1945



FIG 2 Bucky film of chest taken on July 14, 1945

portion of the left lower lobe is the site of an extensive tuberculous pneumonia, and a similar smaller focus of tuberculous pneumonia is present in the anterior midportion of the lower lobe

The heart weighs 230 Gm The left ventricular wall measures 10 to 13 mm , the right ventricular wall 3 mm There is neither dilatation nor hypertrophy of the chambers The coronary arteries are normal in origin There is, however, a considerable preponderance of the right coronary artery which is a much wider vessel than the left and supplies most of the posterior wall of the heart In addition it shows a moderate number of small, circumscribed atheromatous patches, whereas the left circumflex is a fairly small, thin-walled vessel with a smooth intima

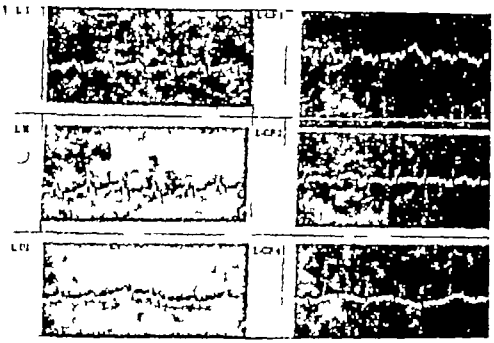


FIG 3 Electrocardiogram taken several months before the patient died

Summary

We have described the case report of a patient who had a complete thoracoplasty on the right side The roentgenologic examination showed a shift of the heart to the right to unusual degree resulting in an acquired dextrocardia Unusual electrocardiographic findings also appeared, consisting of unusual T waves At autopsy the heart was found perfectly normal and without right ventricular hypertrophy in spite of the chronic pulmonary disease and the distortion of the heart that had been caused by the thoracoplasty

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TUBERCULOSIS IN NEW YORK CITY DURING 1948

Three thousand one hundred and five deaths from tuberculosis were recorded in New York City during the year 1948, according to the Department of Health of the City of New York, which was 23 fewer than the 3,128 reported in 1947 The death rate of 38 4 per 100,000 in 1948 was 2 per cent lower than the rate in 1947 which was 39 3, as reported by Godias S Drolet, statistician and assistant director, New York Tuberculosis and Health Association

While for the city as a whole there was a decline in tuberculosis mortality, on the other hand, in the Borough of Manhattan the deaths in 1948 which numbered 1,469 were 68 more than the year before The death rate, already extremely high in that borough, which in 1947 was 73, rose to 76 or by 4 per cent. The number of tuberculosis deaths in Brooklyn, 799, were the same as the year before In the Bronx, the 389 deaths in 1948 were 53 fewer than those in the previous year and last year's rate of 25 4 was 13 per cent lower than that in 1947 when it was 29 3 In Queens, the 367 deaths were 45 fewer than the year before and that borough enjoyed again having the lowest tuberculosis death rate in New York City, 24 as compared with 27 6 in 1947, a decline of 13 per cent

However, while tuberculosis mortality in New York City has fallen in 1948, it cannot be said that the incidence of the disease is any less. This probably reflects increasing success in the treatment of the disease what with extensive hospitalization, the wide application of surgical procedure in pulmonary tuberculosis, and now the valuable adjunct of the antibiotics, penicillin and streptomycin particularly

TORSION OF THE LESSER OMENTUM

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TORSION of the greater omentum is a rather common condition, but torsion of the lesser omentum is rare and has been reported on only a very few occasions Hartwell reported one case of torsion of the lesser omentum which simulated subacute perforation of a gastric ulcer [1] Green mentioned the possibility of torsion in a discussion of traumatic rupture of the lesser omentum.[2] He cited this as a cause of intra-abdominal hemorrhage which occasionally required emergency surgery Bierman and Jones described an accessory or third omentum and its probable development [3] This is a triangular fold of omentum that hangs down from the lesser curvature of the stomach They mentioned that, at times, symptoms of a gastric ulcer were produced by its presence. Others have considered this accessory omentum as a potential source of torsion

A recent case of torsion of the lesser omentum which required emergency surgical treatment was thought to be of sufficient interest to report.

Case Report

A fifteen-year-old girl was referred to us on March 18, 1948, for surgical treatment of what was thought to be an advanced acute retrocecal appendicitis She stated that she had been well until approximately eight hours before admission to the hospital, when upon arising she felt a sudden, sharp, severe right epigastric pain This pain persisted throughout the day and was associated with nausea and vomiting There was no radiation of the pain and no other abdominal symptoms Some two years prior to this episode, the patient states that she was struck in the upper abdomen by a volley ball and that immediately severe pain developed in the epigastrium. She was confined to bed for several days, and her doctor at that time told her that she had an intra-abdominal hemorrhage

Examination at the time of admission to the hospital revealed a well-developed, well-nourished, white female who appeared acutely ill. Her blood pressure was 120/70 and the pulse rate 100 Her temperature was 100 F The leukocytes numbered 17,500, with 88 per cent neutrophils Urine examination was negative. There was definite tenderness in the lower right quadrant of the abdomen Rectal examination revealed nothing significant in the pelvis, but there was some right-sided abdominal tenderness It was felt that the patient presented a definite picture of an acute abdominal condition, and the most possible situation seemed to be that of an acute retrocecal appendicitis There was considerable doubt as to whether appendicitis existed or not, but surgical exploration was performed as an emergency procedure

The abdomen was opened through a low, midright pararectus incision A small amount of free serous fluid was present The appendix was found in a completely retrocecal position with the tip lying several centimeters above the cecum in the region of the hepatic flexure of the colon There was a fecalith in the midportion of the appendix, but there was not sufficient inflammation to account for this patient's symptoms For this reason the incision was enlarged, and a more extensive abdominal exploration was carried out The gallbladder was thin walled and contained no stones Just to the left of the gallbladder a hard inflammatory mass could be felt When this mass was visualized, it proved to be a gangrenous tab of omentum which was twisted on itself in a counterclockwise fashion some three times It was attached to the lesser curvature of the stomach in the prepyloric region just below the angle of the stomach This appeared to be a portion of the gastrohepatic omentum The stomach in this region showed considerable edema with serous inflammation which we felt was secondary to the inflammatory changes in the omentum This portion of omentum was resected and an appendectomy carried out Pathologic report showed that the resected tissue was fat which contained thrombosed vessels. The patient made an uneventful convalescence and was out of bed on her third postoperative day and discharged from the hospital on her tenth postoperative day

Comment

It is not normal for a portion of the lesser omentum to be free within the abdominal cavity so that a torsion could develop Therefore, one must speculate as to the method by which a portion of this omentum can become free In this particular case it was a portion of the gastrohepatic omentum, and we believe it is reasonable to assume that the trauma which the patient received two years previously produced a rupture of the lesser omentum, and, secondarily, a free tab of omentum was present which subsequently became twisted As we have mentioned, some authors state that this is really an accessory omentum or a third omentum, and they have described the embryologic development of such a situation. It is our feeling that in most of the instances reported in the literature the torsion was a traumatic condition, that is to say, that primarily a traumatic rupture of the lesser omentum had occurred It is obviously a rare condition but it is certainly one that must be thought of when exploration is carried out for an acute condition of the abdomen It is important when doing surgery within the abdomen that sufficient pathologic findings be demonstrated to explain the clinical picture as presented by the patient This frequently requires a very complete search of the abdomen as was carried out in this case. The preoperative diagnosis was that of an acute retrocecal appendix and at the time of surgery a retrocecal appendix was found, but, since there were not sufficient pathologic changes to explain the symptoms, a more complete exploration was carried out and the torsion discovered

Summary

A brief discussion of the problem presented by torsion of the lesser omentum has been made A case in which this condition occurred requiring emergency abdominal operation, has been presented

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MULTIPLE SCLEROSIS APPEARING AFTER SPINAL ANESTHESIA

ARTHUR N FLEISS, M D , Syracuse, New York

(From the Departments of Medicine and Psychiatry, Syracuse University College of Medicine, and the University Hospital)

THAT neurologic complications of great variety may infrequently follow the use of spinal anesthesia has long been known They may be in the nature of isolated or multiple cranial nerve palsies, peripheral mononeuritis or polyneuritis, transverse myelitis, encephalomyelitis, or myeloradiculitis Thus, any portion of the central nervous system may be involved It has also been recognized that several clearly defined neurologic syndromes have been aggravated by or even precipitated by spinal anesthesia Hammes recorded a case of multiple sclerosis and one of posterolateral sclerosis associated with pernicious anemia in which spinal anesthesia induced rapid clinical progression of the neurologic defects [1] Critchley described a case of multiple sclerosis and another of progressive muscular atrophy in which the first neurologic abnormalities appeared immediately after spinal anesthesia [2]

Spinal anesthesia is not knowingly used in the presence of any central nervous system abnormalities In those instances where recognized neurologic syndromes were apparently precipitated by the anesthesia, it is likely that subclinical defects had existed which could not be elicited by our present methods of neurologic testing Without the added stimulus of the anesthesia, the disease would probably have appeared more gradually at a later period

The following case illustrates the appearance of multiple sclerosis immediately after spinal anesthesia

Case Report

A veteran, age thirty-six, had had difficulty with his feet for many years, which was attributable to the presence of a bunion and a hammer toe on the left foot as well as bilateral flat feet In March, 1947, the bunion and hammer toe were surgically corrected Spinal anesthesia with pontocaine was used Preoperative neurologic examination was normal

Immediately after the operation the patient first noted difficulty with his right, the unoperated, leg in the form of unsteadiness in his gait and an inability to raise the leg high enough to permit him to take a normal step Occasional nonradiating pain in the right hip and in the back was also described along with fatigue in both legs, more marked on the right The patient also experienced clonic movements in the right ankle when he stepped up

There was some minor complaint of constipation but of no other sphincter disturbances His sexual potency was unchanged He had not been aware of any eye or speech disorder, and other complaints referable to the nervous system were absent

The patient's past history included the notation that he had been subjected to routine medical examinations during his army service in the last war, and no neurologic defects had been found

When the patient was first seen by the writer, six and one-half months after his operation, neurologic examination revealed the following

1 Pupils were equal and round but reacted sluggishly to light and convergence

2 Horizontal nystagmus on lateral gaze, more toward the left, and vertical nystagmus on vertical gaze were present

3 Visual fields revealed bilateral peripheral constriction, more marked in the left eye, scotomata were found in both central fields

4 Right optic disk showed temporal pallor

5 Increased tonus in the lower extremities, weakness of the right thigh and leg, weakness of trunk flexion, and flaccid, pendulous abdomen

6 Reflexes

	Right	Left
Biceps	2	2
Triceps	3	3
Hoffman	0	0
Patellar	3	3
Achilles (clonus)	4	4
Plantar—pathologic no flexion	0	0
Upper Abdomen	2	2
Lower abdomen	1	1
Cremasteric	3	2

7 Normal appreciation of pain, touch, vibration, and position

8 Gait was ataxic, Romberg negative, heel to knee test bilaterally defective, and finger to nose test very slightly defective on the right

9 The remainder of the physical examination was not contributory Severe pes planus was evident bilaterally

Laboratory data were as follows Spinal fluid was clear and colorless Manometric readings were normal Spinal Wassermann test was negative There were 4 mononuclear cells Colloidal gold test (new scale 0 to 20) showed the following 8 5, 9 5, 13, 15, 16, 18, 15, 11, 8 These findings constitute a D type of curve, formerly designated as paretic or first zone Total protein was 46 mg (normal—15 to 25 mg) Blood Wassermann test was negative Complete blood count was normal Urinalysis was unremarkable

Comment

The presence of pyramidal tract and cerebellar tract abnormalities with nystagmus, optic neuritis and the spinal fluid changes constituted a characteristic picture of multiple sclerosis which first became evident after the operative procedure The medical as well as the legal implications of this problem emphasize the importance and value of a thorough neurologic review before a patient is subjected to spinal anesthesia

References

1 Hammes, E M Minnesota Med. 26 339 (1943)
2 Critchley M Proc. Roy Soc Med 30 63 (1937)

Special Article

THE NEEDS OF THE ARMY MEDICAL SERVICE, I

COLONEL C F ST JOHN, First Army Surgeon,
New York City

GERMS recognize no pacts of peace—and, because of that, the Army Medical Department today faces a tremendous challenge

That challenge can best be summed up in the definition of the Army Medical Department's mission—to keep the soldier well and to care for him when he is sick This mission continues both in war and in peace Because it must constantly combat disease and be alert, the Medical Department is in a constant state of preparedness

As every doctor knows, he is the fulcrum around which adequate medical care revolves Without a sufficient number of doctors, no medical program—no matter how well conceived and how highly dedicated—can ever succeed

As of October 1 of this year, the Army will be 1,300 doctors, or 30 per cent, below the necessary strength. This shortage will result from the loss of the doctors who have received their professional education under the Army Specialized Training Program and will have completed two years of duty by this time While the Medical Department is under no compulsion to release these men, nevertheless it feels that is the fairest thing to do

The gravity of the situation, however, should not be underestimated The Undersecretary of the Army, William H. Draper, Jr , said recently, "There is now serious doubt that there are sufficient doctors to provide the necessary medical care of personnel on active duty"

Three alternatives face the doctors and the people of the United States at this time

1 The Secretary of Defense can ask for a draft of physicians

2 Physicians who already served in World War II and who have reserve commissions can be asked to come back.

3 Volunteers have been asked for from among 8,000 doctors educated under the Army Specialized Training Program, who have not served, and 7,000 doctors who were deferred to complete their own education, and who have not served

The Army feels that these 15,000 doctors who saw no service will recognize and realize that their professional colleagues recognize their moral responsibility in this emergency

The Army Medical Department has much to offer Some of the most far-reaching developments are the Intern and Resident Training Programs which have been established Under the Intern Program, a qualified medical school graduate may enter the Reserve—as a first lieutenant and receive full military pay and allowances for the length of his internship He may take internship at either an Army general hospital or at a civilian hospital of his own choice If he serves in an Army general hospital he incurs no further obligations If he interns in a civilian hospital under this program, he is obligated to serve two years on active duty and apply for a Regular Army Commission Under the Resident Program, a qualified medical school graduate who has completed internship, either as a Reserve officer or as a civilian, may accept a commission as a first lieutenant or a captain in the Regular Army The grade depends upon his experience He will receive full military pay and allowances for the duration of his residency, either at an Army general hospital or at a civilian hospital of his own choice

The Army Intern Program is a fine opportunity for young doctors Financially, with his military pay, the young intern is much better off than he would be in civilian life He benefits, and the Army benefits by his services The Residency Program is an excellent way for a young physician or surgeon to come into the Regular Army and make Army medicine his career It affords him the opportunity to complete his specialist training to meet the qualifications of the Specialty Boards He is given every encouragement in this, because the Army wants to increase the number of medical officers who have met Specialty Board requirements

But, Reserve interns and the Regular Army residents are not enough to meet the immediate needs of the Medical Department Today's need for a large peacetime Army and Air Force has made it necessary for Congress to increase the number of those on full-time duty far beyond the limit set for the Regular Establishment Actually, then, the crucial need is for doctors who will accept Reserve commissions and go on tours of active duty for one, two, and three years Ideally, the Army needs a procession of these, so that as one group completes its tour another group begins its tour

What, then, does the Army offer the doctor who takes a Reserve commission and enters on a tour of duty? It offers him a commission in a grade up through colonel His experience determines his grade All doctors and surgeons are commissioned at least as first lieutenants, in recognition of their advanced education The doctor will work in his specialty He will improve his proficiency He will have the benefit of association with other doctors. He will be able to share their experiences, enlarge his knowledge of medicine He will become eligible for retirement benefits which accrue to Reserve Officers. Combinations of active duty and time spent in the Reserves add up to retirement privileges in the future Never before have so many inducements existed for Reserve Officers

39 WHITEHALL STREET
NEW YORK CITY

(NOTE The second article on this subject will appear in the May 15 issue.)

CORRESPONDENCE

IMPOTENTIA

To the Editor

I wish to comment on the article, "Impotentia," by Jesse G Keshin and Bernard D Pinck in the February 1, 1949, issue of the NEW YORK STATE JOURNAL OF MEDICINE The criticism I have to offer is based more on emphasis than on actual inaccuracies The authors, in stressing the etiologic factors in disturbances of potency, describe the various somatic causes with only brief mention of psychic factors In discussing treatment the authors finally state, "Logically, the study of cases of impotence falls to the care of the urologist because of his training in diseases of the genitourinary tract and his consequent ability to rule out any organic lesions which may be causing impotence" This is somewhat analogous to saying that, inasmuch as all psychiatric cases, be they neuroses or psychoses, have a disturbance or potency of one type or another, they should be treated by the urologist Most workers in the field have accepted the fact that impotence is generally a psychiatric problem, except for the unusual case showing an endocrinologic, neurologic or other somatic disturbance It's a well-accepted dictum that neurotics rarely reach full sexual maturity or potency and that many individuals who superficially give no evidence of neurosis are nevertheless suffering from various conflicts with the resultant disturbances in their sexual lives

The psychiatric literature on this subject is vast, and I would particularly refer the authors to the writings of Bergler, Hitschmann, Stekel, Menninger, and others

I would also recommend to the authors that not only "the cases which are purely psychic" but all cases having potency complaints be examined by a psychiatrist trained along dynamic lines They will be astounded at the increased importance psychogenic factors assume in this condition

HYMAN S BARAHAL, M D
West Brentwood, New York
February 5, 1949

Reply by Dr Keshin

To the Editor

In answer to Dr Hyman S Barahal's letter, I would like to make the following comment

Dr Barahal takes issue with our article on the basis of its emphasis on the physical aspects of impotence While we are well aware of the importance of psychiatric factors in the etiology as well as the reaction to the symptoms itself, we would still emphasize that organic disease may play a role in these cases and should be definitely ruled out before therapy of any type is attempted Just as the psychiatrist would not begin psychotherapy without an examination to rule out organic disease, we feel that impotence, being a somatic disorder of the genitourinary tract, deserves a systematic urologic examination to rule out organic disease

Since the physiology of impotence is not yet clearly understood, we do not attempt to overemphasize the importance of any one approach to the exclusion of another It is our responsibility, however, to rule out any organic condition which may be related to the symptom. Much research remains to be done before we can be sure of the relative importance of the organic or psychic pathology in impotence

We are in full agreement with Dr Barahal regarding the psychoneurosis of many of these patients and their need for psychotherapy If, after thorough physical examination, organic factors are eliminated, when psychotherapy is instituted it proceeds more effectively, since the initial urologic examination reassures the patient that all possible aspects of his disorder are being investigated The fact that all details, no matter how minor they may seem, are being specially handled helps to establish the patient's faith in all physicians who will be concerned in the future handling of his problem

As we have pointed out in our article, there is a great need for teamwork by men in related fields for the successful care of the impotent patient There is a danger in our zeal as specialists to become entirely immersed in our own field with the exclusion of contributions from allied branches of medicine In not doing a thorough physical and urologic examination, we may be neglecting an important aspect of the condition We take the broader view of first evaluating the nature of organic factors and then calling upon qualified men in related specialties to help us in the solution of the complex problem of impotence

J G KESHIN, M.D

610 West 110th Street
New York 25, New York
February 25, 1949

DR FROTHINGHAM REPLIES

To the Editor

My attention has been called to an editorial in the NEW YORK STATE JOURNAL OF MEDICINE under the date of February 1, 1949, in which you mention my name in such a way that I gather you would like to receive a letter from me to be published in your JOURNAL

Referring to the sixth paragraph of your editorial, one naturally cannot expect a decision to be published before it is made, but I think one can expect that a body which describes itself to be representative of the opinion of the practicing physicians should make some effort to find out what the prac-

ticing physicians think about a certain subject before reaching a decision in regard to it

In the seventh paragraph you ask for a frank disclosure of the source of the funds which finance the Committee for the Nation's Health. I presume that there is no intimation on your part that there is any secrecy on our part as to whence our funds come, for along with the American Medical Association and other professional or lay organizations which are interested in lobbying activities we make quarterly reports to the Congress of the United States These reports are public documents All gifts of $500 and over are made public by name This Committee for 1948 was given $44,250 by nine persons who contributed $500 or more Smaller gifts from over three hundred persons amount to $3,670

In the third paragraph of your editorial I think one is justified in assuming that you imply that certain people are not officers of the Committee for the Nation's Health by the use of the word "claim" The list of the officers and board of directors of the Committee for the Nation's Health is on this letterhead They *are* our officers and many of them have worked and are working hard in behalf of the purpose for which this Committee was established, namely, the enactment of a National Health Program, the central feature of which is National Health Insurance designed to make adequate medical care available to all the people

I am delighted that you have taken the attitude in your editorial that in order to settle the question of compulsory sickness insurance versus voluntary health insurance plans you ask for "cold, hard facts" I challenge you to find any statement that has been put out by our Committee which is not a matter of fact, and if so I think that proper apology for the mistake will be made In the same spirit of fairness may I ask that you adhere to facts in your publications and urge those interested in your philosophy to do so likewise, and if any one on your side presents statements which are inaccurate I trust that you will be as willing to correct them as our group is

May I call your attention to a letter published in the *New England Journal of Medicine* under the date of February 17, 1949, calling attention to an appreciable number of misstatements of fact and misleading innuendos which appeared in Dr William B Rawls's inaugural address on assuming the presidency of the Medical Society of the County of New York If you want "cold, hard facts" as you asked for in your editorial of February 1, you certainly ought to see that this letter is reproduced in your JOURNAL.

Another set of "cold, hard facts" which have not been relayed to the profession and the public through the medical press is the statement in the Report of the Hearings before the Committee on Education and Labor, Part 5, Page 2679, June, 1946, in which statements on the part of the National Physicians Committee were shown to be inaccurate by quotations from the *Journal of the American Medical Association* If you are really interested in seeing that the medical profession is properly informed on this subject of Compulsory Health Insurance, you should call attention to the misstatements that have been put out over the years by the National Physicians Committee

Furthermore, in the same spirit I think you should endeavor to correct the misstatements printed in the *Journal of the American Medical Association* about the program in England for the delivery of medical care

I trust that you are sincere in your desire for publicity of the truth and only the truth by both sides of this controversial subject, and, if you are, I hope that you will publish this letter in your JOURNAL as an answer to the points brought out in your editorial of February 1

CHANNING FROTHINGHAM, M D
Committee for the Nation's Health, Inc
February 28, 1949

In the February 1, 1949, issue we published the editorial, "Competition in Publicity," referred to by Dr Frothingham. This JOURNAL is indebted to him for his detailed reply We had no intention to intimate any secrecy on the part of the Committee for the Nation's Health as to the source of their funds, only to inquire how much and whence Anyone who had 309 generous disinterested friends in 1948 or any other year should be congratulated in this era of socialism, strikes, and surtaxes

We used the word "claim" in the editorial third paragraph since we took our information from a press release, not always entirely accurate as a news source

As to the rest of the letter, may we suggest that Dr Frothingham address the National Physicians' Committee directly —*The Editors*

AMERICAN BOARD OF PREVENTIVE MEDICINE

To the Editor

The American Board of Preventive Medicine and Public Health, Incorporated, was approved by the Advisory Board for Medical Specialties and by the Council on Medical Education and Hospitals of the American Medical Association at their meeting on February 6 The American Board of Preventive Medicine and Public Health, Incorporated, therefore, is prepared to accept applications for examination for certification in this specialty

The requirements for certification include general qualifications, such as moral and ethical standing in the profession, adequate training in medicine and internship in an approved hospital, and licensure to practice medicine in the United States. Eligibility for examination also requires that the applicant have special training and experience in preventive medicine and public health of at least six years following internship This must include special academic training, or its equivalent, and field training or residency, meeting the standards set up by the Board.

Applications may also be received for the Founders Group who may be excused from examination. The Bylaws authorize a Founders Group made up of practitioners of preventive medicine and public health who have attained unquestioned eminence in the field The Founders Group presumably will include persons having attained eminence as indi-

cated by academic appointments at the level of professor or associate professor of preventive medicine and public health, or who have held positions of eminence and responsibility for a period of not less than ten years in this field

ERNEST L STEBBINS, M.D
Secretary-treasurer
561 North Wolfe Street
Baltimore 5, Maryland
February 21, 1949

"THE DOCTORS ACT"

To the Editor

Your editorial, "The Doctors Act," in the March 15, 1949, issue of the JOURNAL, has stimulated the writer of this letter to some action of his own

It cannot be denied that the health status of the American people has reached a high level, and that the American Medical Association has played a very important role in many of the major achievements in the health field

Your editorial properly lists "high quality sanitation" first on the list of accomplishments which benefit the public You do not state, however, that sanitation is generally developed through the activities of public health departments, and, consequently, has always been under governmental sponsorship and control You also omit mention of the fact that even up to the present time public health departments encounter serious opposition on the part of components of the American Medical Association to some of their activities

The present alleged espousal of the cause of voluntary health insurance by the American Medical Association is not convincing in view of the recent rejection of General Hawley's plan to establish a national enrollment agency which would permit the Blue Shield plans to compete successfully with commercial insurance companies The passive and active resistance to voluntary insurance plans other than those under medical society sponsorship has surely not encouraged "further development and wider coverage by voluntary hospital and medical care plans" One cannot forget that not so very long ago the American Medical Association assured us that even voluntary health insurance was but a short step removed from communism.

The avowed interest of the American Medical Association in "greater emphasis on the program of industrial medicine" is difficult to reconcile with the recent announcement of the A M A that it has suspended publication of its journal *Occupational Medicine* This appears to be emphasis in a negative direction

There is another matter which would seem to be sufficiently important to call for mention in the JOURNAL I refer to the rejection by the medical societies of Kings and New York Counties, representing nearly one half of the physicians in New York State, of the American Medical Association's proposed $25 assessment Indeed, as you say, "The Doctors Act"

LEONARD J GOLDWATER, M.D
600 West 168th Street
New York City
March 15, 1949

Comment

Dr Goldwater scolds us for omitting to state that "high quality sanitation" is developed by public health departments So it is We assumed that most physicians knew that "Program of the A M A for the Advancement of Medicine and Public Health, 1949," paragraph 6, calls for "Establishment of local public health units and services and incorporation in health centers and local public health units of such services as communicable disease control, vital statistics, environmental sanitation, control of venereal diseases, maternal and child hygiene, and public health laboratory services Remuneration of health officials commensurate with their responsibility" If this is opposition, we should buy a dictionary

As to voluntary health insurance, we can only refer Dr Goldwater to the above quoted program of the A M A, 1949, paragraph 3, which calls for "Further development and wider coverage by voluntary hospital and medical care plans to meet the costs of illness, with extension as rapidly as possible into rural area Aid through the states to the indigent and medically indigent by the utilization of voluntary hospital and medical care plans with local administration and local determination of needs" As to the A M A 's alleged assurance that voluntary health insurance was "but a short step removed from communism," we ask Dr Goldwater what, in his view, would be the longevity of any voluntary health insurance under communism?

Dr Goldwater asks us about suspension of *Occupational Medicine*, a publication of the A M.A. We do not know why it was suspended, except possibly because of exorbitant costs of paper and manufacture, these have nothing to do in our view with the interest of the A.M A in actively promoting "Greater emphasis on the program of industrial medicine, with increased safeguards against industrial hazards and prevention of accidents occurring on the highway, home and on the farm"

The action on the $25 assessment of the A M.A taken by the medical societies of New York and Kings Counties is important. It shows that we still have a working democracy in this country The right of the individual to think and believe as he chooses and, within the law, to act as he pleases is not yet abridged Since the payment of the A M A. $25 assessment is a voluntary matter, the physicians in the societies named must determine for themselves what they will or will not do

We had assumed this to be so much a matter of course that *until Dr Goldwater raised the question* of its sufficient importance we had not thought it necessary to give it editorial comment —*Editor*

THE DIRECTORY

To the Publication Committee

I have just received my copy of the 1949 *Directory of the Medical Society of the State of New York*, and wish to compliment you and the other members of the Editorial Board for the excellence of this issue

The arrangement of material, accuracy of detail, and wealth of information contained in this volume makes it invaluable to everyone practicing in this vicinity, and I think that it is probably the best medical directory in the world

Probably everyone does not realize the necessary attention to detail and the tremendous task involved in its compilation, but I hope that those concerned in the undertaking will receive other letters of commendation in addition to mine, so that they will feel that all their hard work has been worth while

WALTER T DANNREUTHER, M D

New York City
March 10, 1949

NOTE Comments, suggestions, and criticism would be appreciated and will be given careful consideration by the Publication Committee

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COMPARES COSTS OF MEDICAL CARE WITH COST OF LIVING INDEX

Costs of medical care have not risen as fast as the cost of living, a comparison of the 1948 Consumers' Price Index with a preliminary index of medical care prices of the United States Bureau of Labor Statistics shows Writing in the February 26 issue of the *Journal of the American Medical Association*, Frank G Dickinson, Ph D , Chicago, director of the Bureau of Medical Economic Research of the American Medical Association, says the bureau estimates from United States Bureau of Labor Statistics figures that the index of medical care items will stand at 141 for 1948

Preliminary figures of the Bureau of Labor Statistics for costs of medical care in 1948 are General practitioners' services, 136, surgeons' and specialists' services, 136, dental care, 146, eyeglasses, 124, hospital rates, 212, and prescriptions and drugs, 122

Figures of the Bureau of Labor Statistics for these items in 1947 were 130 3, 129 4, 137 4, 118.6, 179 6, and 115 4, respectively The entire cost of living index for 1947 was 159 2 "The most significant change is in hospital rates, which soared from 179 6 in 1947 to 212 in 1948 "

EXTRAVAGANT TAXES

Dr R B Robins, a member of the A.M A. House of Delegates, charged that "The Federal government, by extravagant tax demands which constitute a dangerous drain on family income, is forcing lower living standards on millions of the American people and is taking away earnings which they badly need for adequate diet, clothing, and shelter "

"That's the most serious health and economic problem which confronts this country," said Dr Robins, "and it's about time we got it out in the open and talked about it The compulsory health insurance program is a pitiful political attempt to treat symptoms, instead of getting at causes "

Dr Robins, who is from Camden, Arkansas, and who is the Democratic National Committeeman from that state, declared "The real problem in most American homes is the tax bill, not the medical bill In most income classes, according to the findings of the Brookings Institution, the cost of medical care represents about 4 or 4.5 per cent of family income But the tax bill is draining away from 20 to 30 per cent of earnings, even in the low and middle income groups

"It's a little hypocritical, under the circumstances, for Federal Security Administrator Oscar Ewing to be beating the drums for compulsory health insurance as a cure for the people's ills If he wants to make a real contribution toward improving the public health in America, he should do something about cutting costs in his own towering bureaucracy and in the other departments in Washington which are literally taking food out of the mouths of the people In lower income groups, malnutrition is at the bottom of much of the disease in America and Oscar Ewing should know it."

"The real reason for the high-pressure drive for compulsory health insurance," said Dr Robins, "is that the supporters of political medicine see the opportunity for establishing a medical bureaucracy slipping through their hands More than 52 million people in this country already have provided themselves with voluntary health insurance to cushion the economic shock of illness That's a splendid start toward meeting the problem and our campaign will be designed to make all the people of the country health insurance conscious—and let them know that the finest kind of medical care can be bought on a prepaid basis, without government interference or political meddling

"The voluntary health insurance systems, during the past ten years, have had a phenomenal growth—and the real demand is for voluntary health insurance, not compulsory Mr Ewing undoubtedly knows that, and within the next two or three years, if government stays out of the business, the problem will have been largely resolved That may explain the great haste in Washington to jam through a compulsory health insurance program at this session of Congress The socializers see their opportunity rapidly disappearing "

DEPARTMENT OF MEDICAL CARE INSURANCE

CONDUCTED BY GEORGE P FARRELL, DIRECTOR

THE greatest yearly membership gain experienced by the six nonprofit voluntary medical care insurance plans in New York State, approved by the Medical Society of the State of New York, was realized in 1948 Membership increased by 515,644 to a total of 1,539,259 as of December 31, 1948, which represents the highest enrollment of any state in Blue Shield plans

Gain in each plan and membership total at December 31, 1948, was as follows

United Medical Service, New York, gain 398,674 total 1,128,967

Western New York Medical Plan, Buffalo, gain 40,163, total 159,871

Medical and Surgical Care, Utica, gain 20,594 total 109,963

Genesee Valley Medical Care, Inc , Rochester, gain 22,508, total 68,653

Northeastern New York Medical Service, Albany, gain 28,921, total 51,699

Central New York Medical Plan, Syracuse, gain 4,784, total 20,106

Incurred benefits to members were $6,369,388, an increase of $2,687,833 over 1947, or 73 per cent

For medical care of subscribers and dependents, $6,017,004 was paid to doctors during 1948 as compared with $3,529,697 in 1947, an increase of 70 per cent This amount paid for a total of 155,435 claims as compared with 111,592 in 1947

The total number of participating physicians in the six plans is 20,883, an increase of approximately 3,800 during 1948

The Medical Society of the County of Chautauqua has voted to establish a plan for the population of the county, to be operated by the local Blue Cross plan in Jamestown, and is to be known as the Chautauqua Region Medical Plan This project is in the formative state, and a detailed statement will be made in these pages at a later date.

Present increase in enrollment points to added interest by the public in the medium of insurance as protection against the costs of medical care, and there is definitely a stronger interest on the part of the medical profession to participate in and further the publicizing of the plans The present legislative trend in Washington has awakened both the public and the doctors to the importance of maintaining the free practice of medicine unencumbered by any government intervention This can be accomplished only through the voluntary insurance principle of providing for medical care costs on a prepaid basis.

A joint meeting of the Subcommittee on Medical Expense Insurance and plan presidents was recently held to consider a uniform State-wide contract. It was unanimously agreed by the Committee that a contract combining both service and indemnity features should be considered, the point of distinction being income levels.

The contract will provide surgical, in-hospital medical care, with surgery in the home, hospital, or doctor's office, and will include maternity and fractures

The actions of the Subcommittee were submitted to the Council of the State Society at the March 10 meeting and were accepted in principle

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DOCTORS!

Bring your questions to the Panel Discussion at the Annual Meeting, Tuesday morning, May 3, 1949, on Medical Care Insurance Plans

DR A H. AARON, *Moderator*
DR CHAS GORDON HEYD, DR. CARLTON E WERTZ, and
DR. CHARLES S LAKEMAN, *Discussants*

HOSPITAL NEWS

Intern Shortage in City Hospitals Seen

HOSPITALS in New York City will have a shortage of interns starting July 1, it was announced in the March *Bulletin* of the Hospital Council of Greater New York.

For the nation as a whole, the council said that the number of internships available exceeded the number of medical graduates by almost 4,000 It predicted that this discrepancy would be large enough to produce serious dislocations in the operation of many hospitals.

The council contended that "complete coordination among the hospitals, medical schools and the approved bodies of internships is essential if the internship is to serve the best interest of the interns and the patients"

In the sixty hospitals in New York City that are approved for internships, the council said "only 17 per cent have appointed all the interns they require eight of the hospitals have made no appointments at all, and thirty-five have appointed some interns" "The sixty hospitals have appointed 744 interns for the year 1949–1950," the bulletin reported "No additional interns will be available, since all the medical graduates have accepted positions"

The hospitals report a need for 284 additional interns

Teaching hospitals have fared better than nonteaching ones in New York City as well as for the country as a whole The report pointed out that since internships were designed primarily for training of young physicians, the medical graduates were expected to seek the internships in teaching hospitals.

Of the total number of internships offered in the country in 1947, 46 8 per cent were in teaching hospitals and 53 2 per cent in nonteaching hospitals. Teaching hospitals reported 8 6 per cent of their positions unfilled, while 34.2 per cent of the positions in the nonteaching hospitals were vacant.

Presbyterian Hospital President Reports

AT THE annual meeting of the Board of Trustees of Presbyterian Hospital, New York City, held on March 28, Mr Charles P Cooper, president, gave his annual report and summarized the past year's work.

In his analytical report, Mr Cooper credits free enterprise in medicine as the single factor responsible for actually increasing the life expectancy of Americans in the last fifty years, from 46 to 67 years, an extension of life greater than had been achieved in the previous 2,000 years Mr Cooper reported that in 1948 the Hospital suffered a net loss of $264,206 in serving a total of 84,227 clinic and bed patients at a cost of $10,796,707

Ascribing American leadership in medicine "to our unconquerable spirit of free enterprise," he credited the same spirit for "providing the means and desire to underwrite in a volunteer fashion the costs of medical advancement"

Noting that approximately 27 per cent of the total of bed patient days represented Blue Cross subscribers, the president stated "The spread of voluntary prepaid medical insurance over larger numbers of people should be encouraged. By means of insurance, patients have the moral satisfaction of paying their own way" Concerning the government's proposed health legislation, Mr Cooper said "Every hospital should welcome free discussion in the press and in our legislatures regarding hospital problems and the quality of medical care Citizens should have the facts put before them so that they may form intelligent opinions as to how far the State should go in altering medical procedures which have proved successful"

Appoint New Directors for State Hospitals

NEW directors have been appointed for four State hospitals, according to an announcement by Dr Frederick MacCurdy, State Commissioner of Mental Hygiene

Dr Francis J O'Neill, former assistant director of the Central Islip State Hospital, assumed the post of director of the Utica State Hospital, effective April 1

Formerly senior director at the Harlem Valley State Hospital, Wingdale, Dr Alfred M. Stanley was transferred on April 16 to the Rockland State Hospital, where he will be senior director

Dr Leo P O'Donnell, now director of the Newark State School, will be promoted to the position of senior director at the Harlem Valley State Hospital, effective May 1.

Taking up new duties as director of the Rochester State Hospital will be Dr O A. Kilpatrick, who effective April 16, has been promoted from his post as acting director at Rockland.

NEWS NOTES

Dr Melvin H Knisely, chairman of the department of anatomy of the Medical College of the State of South Carolina, gave the fourth of the series of Dr Henry Joachim Lectures on the application of fundamental sciences in medicine on April 27, at the Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn Dr Knisely's topic was, "Sludged Blood and Its Clinical Implications"

Dr Harry Klapper was re-elected president of the staff of St Agnes Hospital, White Plains, at the annual meeting of the medical staff and board of governors held March 31 Other officers are Dr Grosvenor White, head of the pediatric division vice-president, and Dr Daniel MacDonald, attending physician, secretary

At the meeting it was reported that there have been no maternal deaths in the hospital in the past eighteen months, during which period 1,800 babies have been born

Dr Arthur Pense, acting director of Utica State Hospital, until December 1, 1948, and Dr Harold A Pooler, former assistant director who succeeded Dr Pense as acting director, were honored at a farewell party March 17, given by the hospital employes Dr Pooler has been appointed superintendent of the 1,300-bed Bangor State Hospital, at Bangor, Maine

The Edward Gamaliel Janeway Lecture at Mount Sinai Hospital, New York City, was delivered on April 11 by Dr Emanuel B Schoenbach, associate professor of preventive medicine and assistant professor in medicine, Johns Hopkins University School of Medicine, Baltimore His topic was "The Newer Antibiotics Polymyxin, Chloromycetin, and Aureomycin"

The Hospital for Special Surgery, New York City, oldest orthopedic hospital in the United States, has affiliated with the New York Hospital, it was announced on March 24 The Hospital for Special Surgery will move to a new 170-bed hospital for orthopedics and arthritis, to be erected on East River Drive next to the New York Hospital-Cornell Center It was emphasized that the action is not a merger, since both institutions will continue as separate corporations, but that each will avail itself of the experience and facilities of the other

The second nutrition clinic of the New York City Department of Health was officially opened in the Red Hook Gowanus District Health Center, Brooklyn, on April 6 The Brooklyn clinic will offer a consultation, diagnostic, and follow-up service to children and others over six in low income groups, who are suspected of having nutritional abnormalities

A citation, signed by King Haakon of Norway was presented to the White Plains Hospital on March 19 by Consul-General Erling S Bent of the Royal Norwegian Consulate The hospital had maintained a wing from 1941 to 1947 for the treatment of Norwegian seamen

The Greater New York Hospital Association will hold its annual dinner on National Hospital Day, May 12, at the Hotel Roosevelt, New York City, at 7 00 P M Speakers will be Dr Eli Ginzberg, director of the New York State Joint Hospital Survey and Planning Commission, and Mr George Sokolsky, newspaper columnist and radio commentator

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WORLD MEDICAL ASSOCIATION

The World Medical Association formed in Paris in September, 1947, is hopeful of bringing about a uniform high standard of medical education throughout the world, according to Dr Louis H Bauer, of Hempstead, New York, secretary-general of the Association, who spoke on February 7 at the 45th annual Congress on Medical Education and Licensure, sponsored by the American Medical Association and meeting at the Palmer House The World Medical Association is made up of national groups in 39 countries.

Dr Bauer detailed a survey made of medical schools of 26 countries The information included scholastic requirements, length of education, and courses "This study," he said, "affords all countries an opportunity to compare standards and methods with each other"

"In many instances the national medical associations criticize the standards and methods in their countries and make suggestions as to how they can be improved," he reported "It is believed that the World Medical Association, by publishing such a report and through its member associations can be of great assistance in bringing about a uniform high standard of medical education throughout the world"—*J.A.M.A., February 7, 1949*

NECROLOGY

Milton Bodenheimer, M.D, sixty-nine, died at his New York home on March 25 Dr Bodenheimer received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1903 and interned at Mount Sinai Hospital He later became attending surgeon on the staff of the Hospital for Joint Diseases and at the time of his death was consultant surgeon to that hospital. He was also president of the medical board at one time

Dr Bodenheimer served in World War I as a major with a hospital unit of the American Expeditionary Forces in France A founder-fellow of the International College of Surgeons, fellow of the American College of Surgeons, and a member of the founders' group of the American Board of Surgery, of which he was also a diplomate, Dr Bodenheimer belonged to the American Medical Association, the New York Academy of Medicine, and the New York State and County Medical Societies

Jonas Borak, M D, New York City, Viennese radiologist and one-time assistant to Dr Sigmund Freud, died of a heart ailment on April 4. He was sixty-four years old Dr Borak, a graduate of the University of Vienna in the year 1921, came to New York as a refugee in 1939 after serving four terms in Austrian prisons A cabled query from the American Medical Association as to his reported suicide resulted in his release from the last imprisonment where he was sent for writing an article denying the Nazi race theory He left for the United States shortly after this incident with a German passport given him by a Nazi official whose mother he had treated

Dr Borak served as assistant physician in the department of dermatology at City Hospital. He was a diplomate of the American Board of Radiology and a member of the New York Rheumatism Association, the New York State and County Medical Societies, and the American Medical Association

Hans Chase, M D, a forty-eight-year-old physician of Pulaski, died on January 31 Dr Chase was graduated from Goettingen in 1925 and at the time of his death was a member of the New York State and Oswego County Medical Societies and the American Medical Association

Joe Ramey Clemmons, M.D, of New York, died April 2 at the age of fifty-two Dr Clemmons, medical director and executive vice-president of Roosevelt Hospital until his retirement in January, received his medical degree from the University of Tennessee in 1924. After serving his internship at Macon Hospital, Macon, Georgia he became superintendent of that institution in 1926 Four years later he was named assistant director of Strong Memorial Hospital Rochester which post he held until his appointment to Roosevelt Hospital in 1937 During his directorship such innovations as ambulance service for the central west side area of the city a central supply department at the Hospital, and the construction of a new private patient's building, containing the most modern equipment, were instituted At Roosevelt, Dr Clemmons formed the first "catastrophe unit" in New York City The unit, consisting of two teams of doctors and three of nurses, designed to aid in the event of a war emergency, was organized in March, 1941, and functioned throughout the war under Dr Clemmons' direction

Shortly after World War II, he was cited by President Truman for his war service as chairman of the New York State Procurement and Assignment Service for Physicians of the War Manpower Commission, which recruited physicians for the armed forces In World War I he served in France with the 36th Division

Since 1939 he had been director of the Associated Hospital Service of New York. A past president of the Greater New York Hospital Association and a fellow of the American College of Hospital Administrators and the American Medical Association he was also a member of the American Hospital Association, the American Public Health Association, the New York Academy of Medicine, and the New York State and County Medical Societies

Stanton Curry, M D, seventy-nine, died on March 26 A practicing physician in Peekskill for more than forty years, Dr Curry received his medical degree from New York University Medical School in 1898 He was for many years examining physician for the New York Central System in Peekskill and since 1939 had been president of the Peekskill National Bank and Trust Company He was an honorary member of the staff of Peekskill Hospital and a member of the New York State and Westchester County Medical Societies and the American Medical Association

Carlton George Lee, M D, fifty-seven-year-old Highland Falls physician, died on March 25 Dr Lee served as a pilot in the first World War and in the United States Army Medical Corps in World War II At the time of his death he was a staff physician at the Veterans Administration Hospital Castle Point He was a member of the New York State and Orange County Medical Societies and the American Medical Association and was a licentiate of the Medical Council of Canada. Dr Lee was graduated from the University of Alberta in 1925

William Edgar Hurley, M D, died April 4 Dr Hurley aged fifty-two, was a plastic surgeon with offices in New York City and New Brighton, Staten Island He was a graduate of the class of 1920 of the Long Island College of Medicine After the first World War he had served with the Hoover Relief Mission in Kharnov, Russia and in 1928 was with the medical division of the American Relief Association

Martin Kerpel, M D, fifty-three, collapsed and died of a heart attack on March 15 Dr Kerpel was born in Germany, received his medical degree from the University of Berlin in 1922, and came to this country twenty-four years ago He was a member of the staff of Lutheran Hospital and belonged to the New York State and Kings County Medical Societies and the American Medical Association

Anthony J Manzella, M D, aged forty-eight died on February 24. Dr Manzella, a graduate of

the University of Buffalo, School of Medicine, in 1927, was a director of the Division of Communicable Diseases of the Erie County Health Department He was appointed to this post in 1948, having served the two years previous as deputy city health commissioner of Buffalo

After serving his internship at Buffalo City and Meyer Memorial Hospitals, Dr Manzella joined the staff of Black Rock Industrial Clinic until 1929 when he began private practice in Brooklyn While in Brooklyn, he attended New York Post-Graduate for study in cardiography and served as assistant attending physician at Cumberland Hospital and as clinical assistant at Long Island College Hospital In 1933 he started practice in Newburgh and in 1938 became city health officer He obtained the degree of master of public health from the Harvard School of Public Health in 1940 and resumed his private practice in 1942, remaining until 1946 when he was appointed to the city post in Buffalo

Dr Manzella had been a member of the New York State and Erie County Medical Societies, the New York State Health Officers Association, and the American Medical Association

Edward White Perkins, M.D, New York City physician for more than fifty years, died on March 26 He was eighty-three years old For many years associated with Sloane and Presbyterian Hospitals, Dr Perkins was a graduate of the College of Physicians and Surgeons, Columbia University, in the year 1889 He was a member of the alumni associations of Presbyterian and Sloane Hospitals, the New York State and County Medical Societies, and the American Medical Association

Emanuel Salwen, M.D, fifty-five-year-old Brooklyn urologist, died on April 4. Dr Salwen, an alumnus of the College of Physicians and Surgeons, Columbia University, class of 1917, served his internship at Mount Sinai Hospital At the time of his death he was associate urologist at Maimonides Hospital and urologist at Coney Island Hospital. A diplomate of the American Board of Urology and a fellow of the American College of Surgeons, Dr Salwen had memberships in the following organizations American Urological Association, American Medical Association, the New York and Brooklyn Urological Societies, and the New York State and Kings County Medical Societies

Henry Tucker Spelman, M.D, of Brooklyn, died recently at the age of sixty-four after a year's illness Dr Spelman was graduated from the College of Physicians and Surgeons, Columbia University, in 1907 Previous to his illness he had been an associate physician on the staff of Norwegian Hospital, Brooklyn, and medical inspector of the Bureau of Tuberculosis, Department of Health He was also a member of the New York State and Kings County Medical Societies and the American Medical Association

Howard Canning Taylor, M D, eighty-two, died at his New York home on March 27 Dr Taylor received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1891 and served his internship at Roosevelt Hospital. In 1913 he was named professor of clinical gynecology at the College of Physicians and Surgeons and had held that post ever since From 1910 to 1939 he was chief of the gynecologic division of Roosevelt Hospital and in recent years had been a consultant at that hospital He was also consultant gynecologist at Tarrytown Hospital and the Greenwich, Stamford, and Sharon Hospitals in Connecticut, the Horton Memorial Hospital in Middletown In addition he was associate visiting obstetrician and gynecologist on the staff of Bellevue Hospital

A diplomate of the American Board of Obstetrics and Gynecology and a fellow of the American College of Surgeons, he served as head of the National Research Council's Committee on Human Reproduction He was a past president of the American Society for the Control of Cancer, the American Gynecological Society, the New York Obstetrical Society, and the New York County Medical Society At the time of his death Dr Taylor held memberships in the American Medical Association, the American Public Health Association, the New York Academy of Medicine, and the New York State and County Medical Societies

Emil Rudolph Zak, M.D, a specialist in internal medicine and cardiology, died on March 22 at the age of seventy-two Born in Bruenn, Austria-Hungary, Dr Zak received his medical degree from the University of Vienna in 1901 where he did various types of research, eventually becoming professor of internal medicine He was at one time chief of the Heart Station, a hospital in Vienna, and had also been physician-in-chief of the Workmen's Sickness Benefit Fund in Vienna. After the coming of the Nazis to Austria, Dr Zak went to England and in 1940 came to the United States At the time of his death he was an adjunct physician and an assistant adjunct cardiologist on the staff of Beth David Hospital, New York. He was a member of the American Heart Association, the American Medical Association, and the New York State and County Medical Societies

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RHEUMATIC FEVER AND THE SCHOOL CHILD

Recommendations.—To aid school health authorities to develop a more rational approach in the control of disease, the Committees on School Health and Rheumatic Fever of the American Academy of Pediatrics recommend (1) that the school medical examination be improved to aid in more accurate recognition and supervision of rheumatic children, (2) that more emphasis be placed on referral by teachers and nurses of pupils believed to be below par for medical review, (3) that less emphasis be placed on restricting the physical activity of rheumatic children and more attention given to daily observation of pupils for signs or conditions suggestive of rheumatic disease, (4) that there be available, to school health services and the practitioners, diagnostic and consultation services to establish diagnosis, and (5) that these services be developed in cooperation with, and by utilization of, existing medical and public health resources in the community

—*Committee on Rheumatic Fever, American Academy of Pediatrics, 1948*

MEDICAL NEWS

Maternal Mortality in the United States in 1947

MATERNAL mortality decreased to a new low in the United States during 1947, according to figures released by the National Office of Vital Statistics of the Public Health Service, Federal Security Agency The maternal mortality rate was 1 3 per 1,000 live births in 1947 as compared with 1 6 in 1946 The number of maternal deaths (associated with diseases of pregnancy, childbirth, and the puerperium) also decreased from 5,153 deaths in 1946 to 4,978 in 1947, despite the tremendous increase in the number of births.

In 1947, the maternal mortality rate for white women was 1 1 per 1,000 live births, while that for nonwhite women was 3.3, or 3 times as great

The risk of dying associated with childbearing has been declining steadily since 1933, the first year in which data are available for the entire continental United States From 6 2 in 1933, the maternal mortality rate decreased 79 per cent to 1 3 in 1947 Maternal mortality decreased more rapidly among white than nonwhite women The maternal mortality rate for the white race decreased 80 per cent, from 5 6 in 1933 to 1 1 in 1947, and the rate for the nonwhite races decreased 66 per cent in this period, from 9 7 to 3 3

For the State of New York the number of maternal deaths in 1947 was 325, in 1946, 343, and in 1940, 576 The rate of maternal deaths per 1,000 live births for the years 1947, 1946, and 1940, respectively, were 1 0, 1 02, and 2 9

NOTE This marked improvement accomplished without any system of compulsory health insurance —*Editor*

American Academy of Pediatrics Publishes Report on Health Survey

RESULTS of a three-year study of child health services in the nation were announced recently by Dr Warren R Sisson, president of the American Academy of Pediatrics The report was compiled by the Academy with the cooperation of the U S Children's Bureau and the U S Public Health Service under the general direction of Dr John P Hubbard, Philadelphia child health specialist The survey covered every one of the nation's 3,076 counties and was begun in 1946

Deficiencies and inequalities in child care were pointed out in the report It was found that children in or near cities, almost one half of the nation's citizens under sixteen years of age, received 50 per cent more care than those in isolated or rural areas The report emphasized the need for more physicians who are well trained in the care of children and indicated that the present training of doctors in medical schools and hospitals is inadequate

The amount of medical care given the children of New York State is 60 per cent above the national average according to the report. However, it points out that the children in the nine counties comprising the greater metropolitan New York area receive 70 per cent more medical care than the children in the 53 upstate counties The Academy's findings in New York State were based on questionnaires sent out by Dr George M Wheatley, director of the New York State Study Committee of the American Academy of Pediatrics, and supplemented by data supplied by the New York State Medical and Dental Societies, the State Survey and Planning Commission for Hospitals, the Hospital Council of Greater New York, the State departments of health and education, local health departments and agencies

The report stressed the importance of improved medical training in child care for all physicians by having undergraduate and postgraduate education attend more to the preventive aspects of pediatrics and further emphasized that improved hospital facilities for child care in upstate areas would draw more well-trained physicians

Awards by Life Insurance Medical Research Fund

LIFE insurance companies of the United States and Canada will contribute $680,000 during the coming year for the support of heart disease research, it was announced last month by Mr Albert Linton, chairman of the *Life Insurance Medical Research Fund*. The awards raise to more than $2,500,000 the amount contributed by the companies since the Fund was started late in 1945

A total of $585,300 of the funds awarded will be used as grants-in-aid by a group of 35 universities and research centers in the United States and Canada for the support of some 53 different research projects being carried on by individuals or by groups of investigators All of this research is designed to provide basic information about the nature and causes of various forms of heart disease, some represents the continuation of work begun under the Fund's support in previous years

In addition to the money awarded as grants-in-aid, the Fund has also announced the allocation of $94,700 for the support of 18 graduate and nine undergraduate research fellows who will work in the field of heart disease under the supervision of experienced investigators in medical centers in this country, in Canada, and, in the case of one award, in Zurich, Switzerland.

Organized late in 1945, the Life Insurance Medical Research Fund is now supported by 147 life insurance companies in the United States and Canada and to date has distributed $2 575 000 for grants-in-aid and fellowships Because heart disease is at once the most common of all causes of death and has traditionally received less financial support for fundamental research, the Fund has so far restricted its activities to this field and particularly to research into such conditions as high blood pressure, hardening of the arteries, coronary disease, and rheumatic fever

The Fund is one of the pioneer organizations in its field and by the end of 1948 over 260 articles had been published in professional journals on the basis of work it had supported in full or in part

Among those receiving grants were the following

College of Physicians and Surgeons, Columbia University—Dr Erwin Chargaff, for research on the chemistry and physiology of thromboplastic liquids and their role in intravascular clotting, $12,600, Dr Robert F Loeb, for research on then eo-epinephrine and epinephrine content of adrenal medulla, ympathetic chains, and urines of normal and hypersensive subjects, $4,200, Dr Beatrice Carrier Segal, for research on biologic activities of streptococcus in relation to development of rheumatic fever and acute nephritis, $3,885

Mount Sinai Hospital—Dr Paul Klemperer, for research on the development and nature of connective tissue, $9,870

New York University-Bellevue Medical Center—Dr David P Earle, Jr , for research on the relation between renal function and the volume and composition of body fluids, $21,000, and Dr Colin M MacLeod, for research on streptococcal products and relation to development of rheumatic fever, $26,250

Syracuse University College of Medicine—Dr Jane Sands Robb, for research on the structure and functioning of the conducting system of the heart, $25,200, and Dr W W Westerfield and Dr J M McKibbin, for research on the effect of lipotropic substances on phospholipid and cholesterol distribution, $6,405

University of Rochester, School of Medicine and Dentistry—Dr Victor M Emmel, for research on the transition from the benign to the malignant phase of experimental hypertension, $8,925

MEDICALLY SPEAKING—

Radioisotope Unit Established at Northwestern University—The newest radioisotope unit in the middle West, and one which is uniquely constituted for the triple activities of instruction, research, and therapy, has just been established in the Medical School of Northwestern University

Equipment for the unit's laboratories is being financed with a grant in excess of $27,000 from the U S Atomic Energy Commission through the Office of Naval Research

In addition to providing instruments and other facilities for research involving the use of radioisotopes, the Medical School unit will introduce several new courses into its undergraduate curriculum and already has formulated a proposed program of postgraduate medical instruction in the utilization of radioactive elements

Book Plates—Physicians who have book plates should send copies to the Huntington Library, San Merino, California, where a collection of them is being made

National Cancer Foundation—The National Cancer Foundation, an organization devoted solely to services to advanced cancer patients, would like to make its program more widely known to members of the medical profession The work is with patients in the middle and low income groups who have had unusual expenses incidental to this long illness It does not include the indigent, as ample provision is made for them by city departments of welfare It is not possible to pay all the expenses in any case, but, rather, supplementary financial aid is given to help provide comfort and care for the patient Since every problem is different, treatment of each case varies according to its individual needs Cases are recommended to the social service department of this organization from many sources, but it is preferred that they be referred by physicians, visiting nurse associations, county medical societies, and social workers in hospitals or other community agencies However, applications from a responsible member of the patient's family are also considered Application forms may be obtained from the National Cancer Foundation, 101 Fifth Avenue, New York 3

American Academy of Neurology Established—The establishment of the American Academy of Neurology, whose purpose it is to further and encourage the practice of clinical neurology and to stimulate teaching and research in neurology and allied sciences, has been announced

Active membership in the Academy is open to every physician who has been certified in neurology or in both neurology and psychiatry Junior membership is available to physicians presently engaged in postgraduate studies in neurology or who are awaiting certification in neurology In addition, there is an associate membership for those who are not certified in neurology but whose interests are in fields related to neurology

The first scientific meeting will be held at the French Lick Springs Hotel, French Lick Springs, Indiana, on June 1, 2, and 3, 1949

Communications to the Academy should be addressed to Dr Joe R Brown, 19 Millard Hall, University of Minnesota, Minneapolis 14, Minnesota.

National Cancer Institute Grants—National Cancer Institute grants of $671,200 to finance laboratory and clinical research in cancer were announced recently by Oscar R. Ewing, Federal Security Administrator The grants were approved by Surgeon General Leonard A Scheele of the Public Health Service following recommendation by the National Advisory Cancer Council.

Among those receiving grants from the National Cancer Institute were the following

Dr William H Buschke, Manhattan Eye, Ear and Throat Hospital, study of intercellular cohesion in corneal epithelium, $5,940

Dr Joseph H Buchenal, Memorial Hospital, study of chemotherapy of experimental leukemia, $7,700

Dr Allen O Whipple, Memorial Hospital, study of experimental surgery, $7,100

Dr David A Karnofsky, Memorial Hospital, study of growth and effect of neoplastic tissue on chick embryo with particular reference to Hodgkin's disease, $9,700

Dr Emil J Baumann, Montefiore Hospital, study of factors governing selective filtration of ions by the thyroid, $7,340

Dr William S McCann, University of Rochester, study of metabolic studies on patients with neoplastic diseases, $15,066

Dr E Henry Keutman, University of Rochester School of Medicine and Dentistry, study of application of paper partition chemotography to steroid hormones in patients with cancer, $7,560

Dr Myron Gordon, New York Zoological Society, study of genetic and correlated studies of normal and atypical pigment cell growth, $19,899

Dr J J Biesele, Memorial Hospital, study of tissue culture studies of tumor growth and inhibition, $6,588

Dr Antonio Rottino, St Vincent's Hospital, study of Hodgkin's disease, $10,000

New Film on Cancer Released—A new film, titled "Cancer The Problem of Early Diagnosis," which has received the approval of the American Medical Association's Committee on Medical Motion Pictures, was made available to the medical profession recently through more than 50 state and regional distributing points by the American Cancer Society

Prints for single showings may be borrowed from state cancer society offices, state health departments, and the regional offices of Association Films located in New York City

The film, designed for general practitioners, is based on the premise that if cancer were diagnosed early and effectively treated the death rate might be reduced by almost 50 per cent

Dedication of Rochester University Psychiatric Clinic—The new $3,000,000 Psychiatric Clinic of the University of Rochester's School of Medicine and Dentistry was dedicated at ceremonies on March 21

The new institution, attached to the medical school's teaching hospital, is designed, in structure and function, to be an integral part of the general services of Strong Memorial Hospital and of the medical school rather than an isolated unit. Part of its program will be psychiatric training of medical students, physicians, career psychiatrists, clinical psychologists, nurses, and social workers

Its director is Dr John Romano, professor of psychiatry The clinic at present has accommodations for 34 in-patients, with an eventual capacity of 65 Outpatient work with both children and adults has been in progress for several months

Research Projects Announced by Atomic Energy Commission—Twenty-one new research projects in biology and medicine will be financed by the U S Atomic Energy Commission under contract with 16 universities and two hospitals With the new contracts a total of 78 research studies in biology and medicine are currently being financed by the Commission in addition to the work being done at the major laboratories of the national atomic energy program.

The use of radioactive materials for medical diagnosis, the measurement of radiation dosage from radioactive cobalt, and additional investigation of the effects of radiation upon plant and animal tissues are among the studies to be made under the new contracts.

Among those projects being financed are studies on the use of radioactive iodine in developing quantitative assay method for thyrotropic hormone by Dr S C Werner, Columbia University, and the measurement of tissue dose due to gamma and beta active radioisotopes by Dr R. Loevinger, Mount Sinai Hospital.

Sharp and Dohme, Inc., Expresses Opposition—Mr John S Zinsser, chairman of the Board of Sharpe and Dohme, Inc., in his annual report to the company declared his opposition to government health insurance. Among other things he stated,

"A variety of proposals are presently under discussion in medical circles, in the public press, and in the Congress, for the extension and improvement of medical care in this country All will agree with these objectives

"Since Sharp and Dohme is a part of the country's medical system and is greatly concerned with the health and vigor of that system, it is keenly interested in these proposals

'The management of this company strongly disapproves of Federal compulsory health insurance, believing that in the long run it would prove injurious to further medical progress and even to the maintenance of present medical standards.

"On the contrary, we believe that the objectives sought can be better attained and in a way more consistent with the free enterprise system by the extension of the present voluntary insurance plans and by the adoption of other measures such as those which have been suggested by the American Medical Association and others."

American Pioneer in Celiac Therapy Honored—Leading pediatricians and medical organizations of 19 countries throughout the world and the United States joined a large group of distinguished American laymen in paying tribute to seventy-nine-year-old Dr Sidney V Haas, pioneer in celiac therapy, at a golden jubilee luncheon given in his honor at the New York Academy of Medicine on April 5 In addition to honoring Dr Haas's original contributions to the field of pediatrics, the luncheon also marked his completion of fifty years of medical practice in New York City

On behalf of 160 physicians and medical associations in this country and abroad, Dr L. Emmett Holt, Jr , chief of children's medicine, Bellevue Hospital, presented Dr Haas with a Golden Book of Tributes containing letters praising his contributions to science of pediatrics, particularly in celiac therapy and the treatment of the hypertonic infant

Speakers at the luncheon included Robert Moses, Park Commissioner of New York City, and Dr Murray H. Bass, former chief of pediatrics, Mt Sinai Hospital.

Election of Fellows of the American College of Physicians—Announcement was made at the annual convocation of the American College of Physicians on March 30 in New York City of the election of 29 New York physicians to fellowship in the College To be eligible for fellowship, a physician must have been graduated from an approved medical school, serve three years as an associate in the College, and, if engaged in practice, his professional activity must be limited to internal medicine

Physicians from New York, thus honored were Drs Philip Goldstein, Julius Kavee, Samuel J Schneierson, Bronx, Drs Dana W Atchley, Seymour H. Rinzler, Adolph R. Berger, John E Deitrick, Walter Goldfarb, M Leonard Gottlieb, Henry Horn, Anthony M Kasich, Theodore E Oppel, Ralph F Schneider Martin D Smith, Leon N Sussman, Arthur M Tunick, Victor F Woolf, Manhattan, Drs Maxmillian Wachstein, Abraham M Kleinman, Samuel Spitz, Brooklyn, Dr William O Benenson, Flushing, Drs Leonard Horn and Frederic D Zeman, Rochester, Dr Paul A. Burgeson, Warsaw, Dr Orren D Chapman, Syracuse, Dr Samuel E Cohen, Elmira, Dr Elfred L Leech, Oneonta, Dr Robert A. Ullman, Buffalo and Dr Milton H Morris, Far Rockaway

Cancer Grants to Seven New York Institutions—Seven institutions in New York City will receive grants totaling $275,415 in support of cancer research, it was announced recently by the New York City Cancer Committee of the American Cancer Society The grants will provide for one year's

continuation of 27 promising projects already under way as well as the establishment of four new projects

Institutions receiving the grants are Columbia University, $118,816, Cornell University Medical College, $54,070, Sloan-Kettering Institute for Cancer Research, Memorial Hospital, $54,276, Mount Sinai Hospital, $12,908, New York Botanical Garden, $12,731, the Rockefeller Institute for Medical Research, $10,000, and New York University, $22,614.

Brigadier General John Reed Kilpatrick, chairman of the executive committee for the New York Cancer Committee's 1949 fund drive, scheduled to start April 4, said that the grants complete the allocation of funds available from public contributions to the 1948 campaign

MEETINGS

Past

Cornell University Medical College Alumni Association

On March 24, the fifty-first anniversary of the founding of Cornell University Medical College, 700 alumni of the College gathered for a full day's program which included addresses by outstanding alumni and visits to clinics and laboratories for demonstrations and discussions of the research projects now going on at the New York Hospital-Cornell Medical Center Speakers were as follows Dr S Bernard Wortis, 1927, professor of neurology and psychiatry, New York University College of Medicine, on "Medical Mission to Poland—1948", Dr Irving H. Page, 1926, director of research, Cleveland Clinic, on "The Nature of Arterial Hypertension," and Dr Thomas Hale Ham, 1931, Thorndike Memorial Laboratory, on "Diagnosis and Mechanism of Hemolytic Anemias" Presentation of the first annual award of the Cornell University Medical College Alumni Association was made to Dr William S McCann, 1915, professor of medicine at University of Rochester, School of Medicine and Dentistry, for his outstanding contribution to medicine Dr McCann also delivered the first annual lecture of the Alumni Association on the topic, "Some Neglected Aspects of Cardiology"

New York Council of Surgeons

"Recent Advances in the Care of the Newborn—Full-term and Premature" was the subject of a lecture by Dr Nathan M Greenstein, assistant clinical professor of pediatrics at New York Medical College, at a meeting of the New York Council of Surgeons on April 5

Four County Clinical Teaching Day

Under the sponsorship of the Genesee, Orleans, Livingston, and Wyoming County Medical Societies, a four-county Clinical Teaching Day was held on April 20 The scientific program included the following speakers Dr Frank C Combes, New York City, on "Common Skin Diseases", Dr Fred Kergin, Department of Surgery, University of Toronto, on "Lung Tumors", Dr Richard C A Jaenike, attending psychiatrist, Strong Memorial Hospital, on "Psychiatric Approach in General Practice", Dr George E Anderson New York City, on "Management of Diabetes," and Dr George T Pack, New York City, on "Gastric Cancer—The Responsibility of the General Practitioner and the Surgeon"

New York Polyclinic Medical School

A seminar in otolaryngology-ophthalmology was held by the New York Polyclinic Medical School and Hospital April 25 to 29, consisting of a review of recent advances in the diagnosis and treatment of common disorders in the fields of otolaryngology and ophthalmology with lectures, motion pictures, and demonstrations in the clinics, operating rooms, and dissecting room. Among the guest speakers were Dr August L. Beck, New Rochelle Hospital, Drs Conrad Berens, Loren P Guy, Willis S Knighton, Byron C Smith, and Alfred Weintraub, New York Eye and Ear Infirmary, Drs John M Converse, Edmund Prince Fowler, W Guernsey Frey, and David H Webster, Manhattan Eye, Ear and Throat Hospital, Dr Westley M. Hunt, St. Luke's Hospital, Dr Alfred Kestenbaum, Bellevue Hospital, and Dr John M Loré, St. Vincent's Hospital

Future

Orthopedic Alumni of Hospital for Joint Diseases

"The Results of Treatment of Bone Sarcoma," the annual Sir Robert Jones lecture to be delivered on May 12 at 8 30 P M by Dr C Howard Hatcher, associate professor of orthopedic surgery of the University of Chicago, will be the highlight of the three-day orthopedic alumni conference to be held at the Hospital for Joint Diseases from May 12 to 14 Morning and afternoon sessions of the conference will deal with advances in surgery and allied subjects with the presentation of papers and a scientific exhibit of orthopedic material

A dinner-dance will be held on May 14 in the Sert Room of the Waldorf-Astoria For further information call Dr J J Golub at Lehigh 4-5500, extension 211

Annual Chest Conference of St John s Episcopal Hospital

The fourth annual chest conference of St John's Episcopal Hospital will be held at the Hospital on May 21 Dr E K Johnson will discuss "Pre- and Postoperative Management of Thoracic Surgery Cases," and Dr Richard Sweet will speak on "Cancer of the Esophagus"

International Congress on Rheumatic Diseases

The seventh International Congress on Rheumatic Diseases conducted by the American Rheumatism Association under the auspices of the International League Against Rheumatism will be held from May 30 through June 3 at the Hotel Waldorf-Astoria The Congress will be devoted to the subject of rheumatic disease in all its phases, to-

gether with certain allied topics, and the program includes presentations of papers, clinics, and round-table discussions.

New York Academy of Medicine

A clinical research meeting will be held by the New York Academy of Medicine on June 1 The meeting, arranged by the Committee on Medical Education of the Academy, will comprise presentations of original work in clinical medicine

American Academy of Dental Medicine

The American Academy of Dental Medicine will hold its annual meeting on June 4 and 5 at the Statler Hotel, New York City Included in the program will be a symposium on psychosomatics and round-table discussions on this subject. For further information address Dr William M Greenhut, National Secretary, 124 East 84th Street, New York 28

PERSONALITIES

Honored

In memory of the late Dr Nathan B Bluestone, the Yorktown Community Nursery School has completed plans for a memorial to be known as the "Dr Nathan B Bluestone Memorial Youth Center" Dr John Frederick Erdmann, in celebration of his eighty-fifth birthday on March 27, a party given by operating room nurses at New York Post-Graduate Hospital Dr Elihu Katz, president of the Society for the Establishment of a Medical College at Yeshiva University, at a testimonial dinner March 20 for his work in the campaign to build the school.

Awarded

For outstanding achievment in preventive medicine, Dr Stanhope Bayne-Jones, president of the joint administrative board of the New York Hospital-Cornell Medical Center, the James D Bruce Memorial Medal at the annual convocation of the American College of Physicians on March 28

Appointed

Dr Theodore J Curphey, chief medical examiner of Nassau County, as chairman of the Council Committee on Public Health and Education of the Medical Society of the State of New York Dr Milton Feig, of New York and Great Neck, as district health officer for the State Board of Health in Wisconsin with headquarters in the city of Green Bay Dr C P Rhoads, as medical director of the Memorial Hospital Center for Cancer and Allied Diseases Dr Elias Rubin, Jamaica, Long Island, as chairman of the Queens Physicians Division of the United Jewish Appeal for the 1949 campaign.

Elected

Dr Thomas N Sheen, to the board of directors of the New York Tuberculosis and Health Association, and Dr Edward P Eglee, chairman of the executive committee of the organization.

Speakers

Dr Harold Peck, psychiatrist at the Children's Court treatment clinic, at a seminar on delinquency sponsored by two committees of the Welfare Council on March 14 At a meeting of the South Glens Falls Rotary Club on March 15, Dr E Yale Clarke, of Glens Falls Dr Martin Steinberg, superintendent of Mount Sinai Hospital, Dr Ralph Kaufman, psychiatrist, and Dr Samuel R. Lehrman, chief of the Psychiatric Clinic at Mount Sinai, at a seminar on psychosomatic medicine for the Chaplaincy Institute of the New York Board of Rabbis on March 16 At the fortieth anniversary conference of the National Society for the Prevention of Blindness on March 16, Dr Hunter H Romaine, consultant ophthalmologist at the New York University Reading Clinic Dr John B Pastore, executive director of the Hospital Council of Greater New York, at the graduation of student nurses at New York Medical College, Flower and Fifth Avenue Hospitals on March 18 Dr Ernest P Boas, Mount Sinai Hospital, Dr Dean A. Clark, medical director of the Health Insurance Plan of Greater New York, and Dr George T Pack, Memorial Hospital, at a forum dinner meeting on compulsory health insurance at the New School for Social Research on March 24 Dr Louis H Bauer, vice-chairman of the Board of Trustees of the American Medical Association, at the annual meeting of the Council of Affiliate Agencies of the Federation of Protestant Welfare Agencies, March 30, on the topic "The National Health Plan" On March 30, at a meeting of the New York Association of Occupational Therapists, Dr Eugene L Swan, senior psychiatrist at Rockland State Hospital Dr John C A Gerster, chairman of the New York City Cancer Committee, at the second annual dinner of the Pearl Harrow Cancer Memorial on April 2 As the 1949 Biggs Lecture at the New York Academy of Medicine on April 6, Dr Howard A. Rusk, professor of rehabilitation and medicine at the New York University College of Medicine, on "The Medical, Social, and Public Health Aspects of Rehabilitation" Dr Hart E. Van Riper, medical director of the National Foundation for Infantile Paralysis, Inc , and Dr Daniel S Cunning, on "The Tonsillectomy-Poliomyelitis Problem" at a session of the fifty-third annual meeting of the American Laryngological, Rhinological, and Otological Society, Inc , on April 18 At a conference on April 22 sponsored by the Child Research Clinic of the Woods Schools of Langhorne, Pennsylvania, Dr Richard L Frank, professor of psychiatry, Long Island College of Medicine on "The Parents "

New Offices

Dr Benjamin L. Harrison and Dr Maxwell Harrison, in Newburgh, for diseases of the eye ear nose, and throat.

COUNTY NEWS

Erie County

Dr Joseph Burchenal of Memorial Hospital, New York, spoke on "Clinical Approach to Chemotherapy of Cancer" and Dr Gray H. Twombley, also of Memorial Hospital, spoke on "The Diagnosis and Treatment of Carcinoma of the Cervix" at the afternoon Clinical Session of the Cancer Teaching Day

presented by the Erie County Medical Society on April 26 At the evening session, the stated meeting of the County Medical Society, Dr Cushman D Haagensen, director of the Institute of Cancer Research at Columbia-Presbyterian Medical Center, addressed the members Dr Haagensen's topic was "Diagnosis and Treatment of Carcinoma of the Breast"

The second annual public education meeting of the Erie County Chapter of the American Cancer Society was held on April 5 Speakers included Dr Louis Dublin, vice-president and chief statistician of the Metroplitan Life Insurance Company, New York City, on "Progress in Cancer Control," and Dr Louis C Kress, director of the Roswell Park Memorial Institute, on "Progress in Research, Diagnosis, and Treatment of Cancer"

Genesee County

The Genesee County Medical Society with the cooperation of Genesee Memorial and St Jerome's Hospitals has inaugurated the Genesee County Medical Society Blood Donor Registration, a service which has as its aim the recording of the blood types of as many persons in the county as possible so that donors will be available through the hospital files for the needs of rare blood types or to meet the demands of an unexpected emergency

Kings County

As of March 17, 1949, the Brooklyn Psychiatric Society was officially established and functioning The inaugural meeting was held on April 21 at which time the president, Dr Simon Rothenberg, delivered his inaugural address Other officers include Dr Sam Parker, vice-president, and Dr Morton Hand, secretary-treasurer

Nassau County

The regular monthly meeting of the Medical Society of the County of Nassau was held on March 29 Col William L Wilson, M C , special assistant to the Surgeon-General, U S Army, and chief surgeon of the Truman Plan for Greece and Turkey, gave a talk on the topic, "Atomic Energy and Its Relation to Medicine"

Dr J William Hinton, attending surgeon at Bellevue and New York Post-Graduate Hospitals, was the guest speaker at a meeting of the Long Island Surgical Society of the International College of Surgeons on April 12 Dr Hinton spoke on "The Present Status of Gastric Surgery with a Discussion of the Contraindications of Vagotomy"

Onondaga County

On March 17 the annual dinner meeting of the Onondaga Health Association was held with Dr Henry Van Zile Hyde as guest speaker Dr Hyde, medical director of the U S Public Health Service and United States representative on the executive board of the World Health Organization, spoke on the World Health Organization and its meetings in Geneva, Switzerland

Queens County

Members of the Queens County Medical Society heard Dr Nolan D C Lewis, director of the New York State Psychiatric Institute and professor of psychiatry at the College of Physicians and Surgeons, Columbia University, talk on the subject, "Psychosomatic Problems of Interest to the General Practitioner," at the stated meeting of the Society on March 29

Recent Friday afternoon lectures sponsored by the Medical Society included the following

April 18—Dr Jerome Schwartz, superintendent of psychiatry at Creedmore State Hospital, on "Alcohol and Other Forms of Drug Addiction"

April 15—Dr Lloyd F Craver, chief of medical service at Memorial Hospital, on "Some Aspects of Malignant Lymphomata"

"Treatment of Hypertension" was the topic of a lecture given by Dr William Goldring, associate professor of medicine, New York University College of Medicine, at the April 5 meeting of the Queens County Chapter of the American Academy of General Practice

Rockland County

Dr Sidney Schwartz, cardiac consultant to Good Samaritan Hospital, Suffern, and chief cardiologist at Montefiore Hospital, addressed the members of the Rockland County Medical Society at a meeting on March 2 Dr Schwartz spoke on the emergency treatment of acute heart attacks

At the business meeting Dr George M Richards, chairman of the doctors committee on "Aid to Echternach," and Dr John C Dingman, committee member, described plans for the collection of old and unused instruments from all Rockland County physicians and local hospitals Echternach is a town in the Grand Duchy of Luxembourg which was badly battered during the Battle of the Bulge in World War II According to reports, the hospital building, which had been completely destroyed, was now rebuilt, but there were no modern instruments available

Schenectady County

A special meeting of the Schenectady County Medical Society was held on April 7 Dr Chester S Keefer, professor of medicine at the Boston University School of Medicine and physician-in-chief of the Massachusetts Memorial Hospital, spoke on "The Choice of Chemotherapeutic Agents in the Treatment of Infections with Special Reference to Eye, Ear, Nose, and Throat Diseases"

Sixty members of the County Medical Society were guests of Winthrop-Stearns, Inc , on March 17 at an open house designed to acquaint physicians with the latest developments in the drug industry The program included a tour of the Winthrop-Stearns, Inc , plant, dinner, and a scientific seminar Dr A M Lands, in charge of pharmacodynamics research at the Winthrop-Stearns Research Institute spoke on "Insuprel and Other New Drugs in the Treatment of Asthma," and Dr Charles F Kade, Jr , in charge of nutritional research at the Institute, spoke on "Protein Hydrolysates" In addition, Dr A E Sherndal, vice-president in charge of manufacturing, explained the problems of transferring a new product from the laboratory to commercial manufacture

Ulster County

"Keeping Your Baby Well" is the title of a series of radio transcriptions which will be featured on the Ulster County Health Department's regular weekly broadcast over Station WKNY The series is distributed by the American Medical Association in cooperation with Ulster County Medical Society

WOMAN'S AUXILIARY

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Auxiliaries Adopt Resolutions Opposing Health Insurance

MEMBERS of county auxiliaries, component units of the Woman's Auxiliary to the Medical Society of the State of New York, have adopted resolutions opposing compulsory health insurance and are to be congratulated for their cooperation in this important work, the Public Relations Bureau of the Medical Society of the State of New York has announced.

Resolutions have already been received by the Public Relations Bureau from the following county auxiliaries Allegany, Chautauqua, Oneida, Richmond, and Rensselaer Other auxiliaries, which have passed similar resolutions, have not yet filed copies with the Public Relations Bureau.

If the passage of these resolutions is to accomplish its purpose, the Bureau suggests that each Auxiliary carry out immediately the following procedure

1 Retain the original resolutions in its files

2 Send a copy, with a personal letter, to the two United States Senators, the Representatives, and state legislators from its own district

3 Send a copy to the Public Relations Bureau, Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York, the American Medical Association office at 1302 18th Street, Washington, D C, and the National Education Campaign of the American Medical Association, 1 North LaSalle Street, Chicago 2, Illinois

4 Send a copy to each of the local newspapers and radio stations in its own district

COUNTY NEWS

Chautauqua County

Mrs Harold M Childress was elected president of the Chautauqua County Auxiliary, succeeding Mrs Calvin Clark Torrance, at the March meeting of the group held in Jamestown.

Other officers chosen include Mrs Hilding J Nelson, vice-president, Mrs Lucius H Bugbee, Jr, corresponding secretary, Mrs Harold A. Blaisdell, recording secretary, and Mrs Robert Storms, treasurer

Annual reports were given of the past year's activities, and Mrs Torrance reported that there was $290 in the nurse scholarship fund.

Nassau County

Dr Theodore J Curphey, Garden City, spoke on "Pertinent Facts About Legislation" at the meeting of the Nassau County Auxiliary held March 22 in Garden City Miss Marion Fegley of the Nassau County Tuberculosis and Public Health Association spoke on rheumatic heart disease

Following the Auxiliary meeting, the members joined with the Nassau County Medical Society to hear Colonel William L Wilson, special assistant to the Surgeon General of the United States Army, speak on "Atomic Energy and Its Relation to Medicine."

Queens County

The sixteenth anniversary of the Queens County Auxiliary was celebrated on March 22 at a tea and reception for new members. Mrs S A. Alexrod and Mrs Samuel Klein were in charge of refreshments

On April 26, the regular meeting was held, with the guest speaker being Mrs R J Knox, an interior decorator, whose topic was "Personality in Home Decoration."

Schenectady County

The Schenectady County Auxiliary met on March 22 at the Mohawk Golf Club for its regular monthly session, with Mrs Gomer Richards presiding

A playreading, "The Heiress," directed by Mrs Morris Shapiro, was presented, with the following cast Mrs Beverly Vosburgh, Mrs John Lord, Mrs Donald Binder, Mrs James Blake, Mrs Herman Galster, Mrs Michael Donovan, and Mrs Kencil Mitton.

Delegates to the State convention were elected and include Mrs Milton Gipstein, chairman, Mrs Raymond Byron, Mrs Michael Slovak, Mrs Kencil Mitton, Mrs Peter Sykowski, and Mrs William Jameson

Seneca County

Mrs Hyman Abrahamer was elected president of the Seneca County Auxiliary at the meeting held March 15 in Seneca Falls Other officers chosen are Mrs Arthur Baldwin, vice-president, Mrs. Roy Wallace, secretary, and Mrs Saul Towers, treasurer

A panel discussion was held on "Socialized Medicine" with members of the Auxiliary participating

Westchester County

A membership tea was held by members of the Westchester County Auxiliary on March 1 in New Rochelle Mrs N J DeJulio and Mrs Howard Kopins are cochairmen of the membership committee

BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

RECEIVED

Recent Advances in Anaesthesia and Analgesia (Including Oxygen Therapy) By C Langton Hewer, M B (Eng) Sixth edition Duodecimo of 380 pages, illustrated Philadelphia, Blakiston Co , 1948 Cloth, $6 00

Twentieth Century Speech and Voice Correction Emil Froeschels, M D , Editor Octavo of 321 pages, illustrated New York, Philosophical Library, 1948 Cloth, $6 00

Zinsser's Textbook of Bacteriology The Application of Bacteriology and Immunology to the Diagnosis, Specific Therapy and Prevention of Infectious Diseases for Students and Practitioners of Medicine and Public Health Revised by David T Smith, M D , Donald S Martin, M D , Norman F Conant, Ph D , *et al* Ninth edition Octavo of 992 pages, illustrated New York, Appleton-Century-Crofts, 1948 Cloth, $10

Your Diet for Longer Life By James A Tobey, Dr P H Duodecimo of 280 pages New York, Wilfred Funk, 1948 Cloth, $3 50

Pediatric Nursing By Gladys S Benz, R.N Octavo of 638 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $4 00

Teachers' Guide for Pediatric Nursing By Gladys S Benz, R.N Octavo of 65 pages St Louis, C V Mosby Co , 1948

Treatment by Manipulation In General and Consulting Practice By A Timbrell Fisher, M B (Eng) Being the fifth edition of "Manipulative Surgery" Octavo of 275 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $5 00

Handbook of Orthopaedic Surgery By Alfred Rives Shands, Jr , M D , in collaboration with Richard Beverly Raney, M D Illustrated by Jack Bonacker Wilson Third edition Octavo of 574 pages, illustrated St. Louis, C V Mosby Co , 1948 Cloth, $6 00

Streptomycin und Tuberkulose Edited by Prof G Fanconi and Prof W Löffler With the collaboration of Drs J Barth, M Bosshard, Prof Dr O Bucher, *et al* Octavo of 357 pages, illustrated Basel, Switzerland, Benno Schwabe (New York, Grune & Stratton), 1948 Paper, 30 Sw fr

An Index of Treatment by Various Writers Edited by Sir Robert Hutchison, M D Assisted by Reginald Hilton, M D Thirteenth edition. Octavo of 972 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $17

More Than Armies The Story of Edward H Cary, M D By Booth Mooney Octavo of 270 pages, illustrated Dallas, Mathis, Van Nort & Co , 1948 Cloth, $5 00

Therapeutisches Taschenbuch für Arzte und Studierende. Edited by Dr G *Ruepp* Contributors, Prof W Burckhardt, Prof M Francillon, Dr E Hafter, *et al* Sextodecimo of 394 pages Bern, Switzerland, Medizinischer Verlag Hans Huber, 1948 Cloth, 12 Sw fr

Essentials of Pathology By Lawrence W Smith, M D , and Edwin S Gault, M D Third edition Quarto of 764 pages, illustrated Philadelphia, Blakiston Co , 1948, Cloth, $12

The Treatment of Malignant Disease by Radium and X-rays Being a Practice of Radiotherapy By Ralston Paterson, M D Octavo of 622 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $11

Medical Writing The Technic and the Art. By Morris Fishbein, M D , with the assistance of Jewel F Whelan Second edition Octavo of 292 pages, illustrated Philadelphia, Blakiston Co , 1948 Cloth, $4 00

Preoperative and Postoperative Care of Surgical Patients By Hugh C Ilgenfritz, M.D Octavo of 898 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $10

Microbiology and Pathology By Charles F Carter, M D Fourth edition Octavo of 845 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $5 00

An Introduction to Medical Mycology By George M Lewis, M D , and Mary E Hopper, M S Third edition. Quarto of 366 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $8 50

Direct Electrocardiography of the Human Heart and Intrathoracic Electrocardiography By Franz M Groedel, M D , and Paul R Borchardt, M D Octavo of 224 pages, illustrated New York, Brooklyn Medical Press, 1948 Cloth, $9 00

A Textbook of General Physiology By Philip H Mitchell, Ph D Fourth edition Octavo of 927 pages, illustrated New York, McGraw-Hill Book Company, 1948 Cloth, $7 50

Polio and Its Problems By Roland H Berg Octavo of 174 pages, illustrated Philadelphia, J B Lippincott Co , 1948 Cloth, $3 00

Bronchiogenic Carcinoma and Adenoma. With a Chapter on Mediastinal Tumors By B M Fried, M D Octavo of 306 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

Bailey's Text-book of Histology Revised by Philip E Smith, Ph D , and Wilfred M Copenhaver, Ph D Twelfth edition Octavo of 781 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $7 00

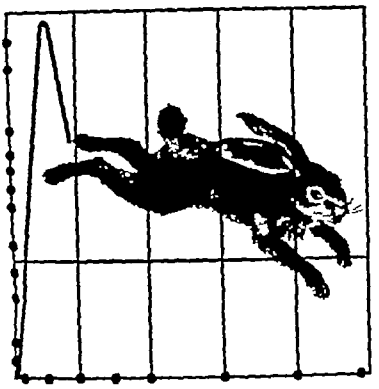
A Method of Anatomy Descriptive and Deductive By J C Boileau Grant, M B (Edin) Fourth edition Octavo of 852 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $7 00

Your Baby The Complete Baby Book for Mothers and Fathers By Gladys Denny Shultz and Lee Forrest Hill, M D Quarto of 237 pages, illustrated New York, Doubleday & Co , 1948 Cloth, $3 50

Plaster of Paris Technic. By Edwin O Geckeler, M D Second edition Octavo of 216 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $3 00

Fractures and Dislocations for Practitioners By Edwin O Geckeler, M D Fourth edition Quarto

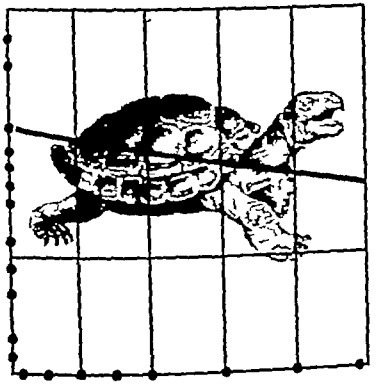
[Continued on page 1096]



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a RAPID peak concentration of serum penicillin

and



a SUSTAINED therapeutic concentration

with a single injection from a single container

FLO-CILLIN "96"—the *original* 96-hour repository penicillin formulation—is now available with a *plus* Soluble Penicillin G Potassium—100,000 units per cc —has been added to the FLO-CILLIN "96" formula. The soluble potassium penicillin is absorbed promptly, with a resulting initial penicillin blood concentration sufficient to overwhelm invading bacteria at the outset. The insoluble Procaine Penicillin G, with water-repellent aluminum stearate in oil, is absorbed slowly and regularly over a period measured in days Thus, with a single injection from a single container, it is now possible to obtain an initial *peak* penicillin blood level, together with a *therapeutic* blood level which is sustained for 96 hours in approximately 90 per cent of patients *

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SYRACUSE, NEW YORK

*Thomas E. W., et al *J.A.M.A. 137 1517 1948*

[Continued from page 1094]

of 371 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $5 00

Clinical Roentgenology of the Digestive Tract. By Maurice Feldman, M D Third edition Octavo of 901 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $8 00

Symposia on Nutrition of the Robert Gould Research Foundation Vol 1 Nutritional Anemia Edited by Arthur Lekwa Octavo of 194 pages, illustrated Cincinnati, Robert Gould Research Foundation, October 16–18, 1947

Pediatric Anesthesia. By M Digby Leigh, M D , and M Kathleen Belton, M D Octavo of 240 pages, illustrated New York, Macmillan Co , 1948 Cloth, $5 50

A-B-C's of Sulfonamide and Antibiotic Therapy By Perrin H Long, M D Duodecimo of 231 pages Philadelphia, W B Saunders Co , 1948 Cloth, $3 50

The Medical Clinics of North America Boston Number September, 1948 Octavo Illustrated Philadelphia, W B Saunders Co , 1948 Published Bi-Monthly (six numbers a year) Cloth, $16 net, paper, $12 net

Sterility and Impaired Fertility Pathogenesis, Investigation & Treatment. By Cedric Lane-Roberts, M S , Albert Sharman, M D , Kenneth Walker, M B , *et al.* Octavo of 400 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $6 50

Hospital Trends and Developments, 1940–1946 Edited by Arthur C Bachmeyer, M D , and Gerhard Hartman, Ph D Octavo of 819 pages New York, Commonwealth Fund, 1948 Cloth, $5 50

Occupational Marks and Other Physical Signs A Guide to Personal Identification By Francesco Ronchese, M D Octavo of 181 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $5 50

Detailed Atlas of the Head and Neck. By Raymond C Truex, M S , and Carl E Kellner Folio of 162 pages, illustrated New York, Oxford University Press, 1948 Cloth, $15

Education for Professional Responsibility A Report of the Proceedings of the Inter-professions Conference on Education for Professional Responsibility Held at Buck Hill Falls, Pennsylvania, April 12, 13, and 14, 1948 Chairman, Planning Committee, Elliot Dunlap Smith, L L B Octavo of 207 pages Pittsburgh, Carnegie Press, 1948

REVIEWED

Diseases of Children's Eyes. By James Hamilton Doggart, M D Octavo of 288 pages, illustrated St Louis, C V Mosby Co , 1947 Cloth, $10

This is a very practical introduction to the ophthalmology of childhood and to ophthalmology in general It is well printed, very well illustrated, and a credit to the author and publisher We commend it to the beginner who, if interested in children's eyes, will find he has made a broad approach and cannot help but continue the study to a higher level

RALPH I LLOYD

Treatment in General Practice By Harry Beckman, M D Sixth edition Octavo of 1,129 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $11 50

The sixth edition of this popular treatise on therapy has been brought up to date in a highly satisfactory manner As usual, the latest edition of *Beckman* can be recommended to all the general practitioners for whom it is intended The value of the volume would be enhanced if there were a separate chapter on the use of the antibiotics The general principles are, after all, the same, no matter in which condition they are used The brief section starting on page 977 is too sketchy and treats only of toxic reactions

MILTON PLOTZ

Experimental Air-Borne Infection. By Theodor Rosebury With the coauthorship and assistance of the staff of the Laboratories of Camp Detrick, Maryland Octavo of 222 pages, illustrated Baltimore, Williams & Wilkins Co , 1947 Cloth, $4 00 (Microbiological Monographs Official Publication of the Society of American Bacteriologists)

One portion of this interesting book is devoted to the description of the cloud chamber building, the technics employed in producing clouds of labile agents, and a discussion of the distinctive features of the several varieties of atomizers employed The section dealing with the stability and infectivity of bacteria and viruses is full of imposing data. However, the material is presented in a manner so formidable that only those who are interested particularly in experimental air-borne infection will take the time to profit from a study of this important monograph

MORRIS L RAKIETIN

Minor Surgery By Frederick Christopher, M D Sixth edition Octavo of 1,058 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $12

The sixth edition is revised and special sections have been added regarding antibiotics and experiences arising out of World War II Some of the sections have been revised and amplified The surgical principles are sound and noncontroversial The recommendations are direct and comprehensive and the illustrations are descriptive It is an excellent ready reference book on minor surgery and some phases of major surgical problems The book should be of inestimable value, not only for the general practitioner and the "surgical intern," but will be found worth reading by qualified surgeons

IRWIN E SIRIS

Operative Gynecology By Harry Sturgeon Crossen, M D , and Robert James Crossen, M D Sixth edition Quarto of 999 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $15

This book has been well received for more than thirty years It is truly packed with illustrations and information Much space is devoted to the familiar Crossen technic, and the authors' interest in foreign bodies in the abdominal cavity has not abated a bit Many of the old operations for retroversion, which were never any good anyway, are described, and a chronologic table of that better for-

[Continued on page 1098]

"Imprisoned in every fat man,
a thin one
is wildly signaling to be let out."

C C Palinurus, quoted in Bull New York Acad Med 24 2 (Feb) 1948.



Overeating imprisons the "thin one", and he can signal till doomsday, but he will never get out unless the "fat man" stops overeating.

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[Continued from page 1096]

gotten era is included The chapter on pelvic inflammatory disease and parametrial cellulitis is excellent evidence that the authors know more about these subjects than many others who have written textbooks on gynecology CHARLES A GORDON

Dermatologic Therapy in General Practice By Marion B Sulzberger, M D, and Jack Wolf, M D Third edition Large duodecimo of 663 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $7 75

In the last war, the earlier edition of this book, with its explicit directions concerning diagnosis, treatment, and the proper methods for its application, proved of enormous value to those members of the profession who found themselves in one of the services of our country

The authors of this volume are able to speak with the authoritative knowledge which long practice in teaching and experience has granted them The illustrations which accompany the text are excellent and definitive, but, today, with color printing at its highest perfection, the absence of color plates for diagnostic assistance is much to be regretted

NATHAN THOMAS BEERS

The Epithelia of Woman's Reproductive Organs. A Correlative Study of Cyclic Changes. By George N Papanicolaou, M D, Herbert F Traut, M D, and Andrew A Marchetti, M D Quarto of 96 pages, illustrated New York, Commonwealth Fund, 1948 Cloth, $10

The book is a monograph on the various epithelial structures in the female genital tract It correlates cytologic changes occurring in the epithelia of the vagina, cervix, uterus, and tubes Physiologic and embryologic relationships are included It is based on a ten-year study of material obtained from 233 patients

The authors are pioneers in the development of the vaginal smear technic A comprehensive bibliography and 23 beautifully colored plates accompany the text ALEXANDER H ROSENTHAL

Oxford Loose-Leaf Medicine, Supplements. 16 reprints Octavo New York, Oxford University Press, 1947 Available only to subscribers

This is a collection of monographs on subjects within the field of internal medicine replacing obsolete sections in the Oxford Loose-Leaf Medicine In general, they are excellent essays fully worthy of inclusion in this well-known system The chapters devoted to edema and multiple myeloma, good as far as they go, are too sketchy Those on arterial hypertension by Ayman and on kidney disease by Christian retain their usual standard of excellence

MILTON PLOTZ

Occupational Medicine and Industrial Hygiene By Rutherford T Johnstone, M D Octavo of 604 pages, illustrated. St Louis, C V Mosby Co, 1948 Cloth, $10

This book covers the various types of potential industrial illnesses caused by the noxious materials released during manufacturing processes in which chemicals and metals are involved It furnishes details of symptomatology, pathology, and treatment of these types of illnesses with complete case history reports of an interesting nature

Graphically illustrated, it contains many interesting charts of tests to determine toxic agents The Workmen's Compensation Provisions and the State regulation and classification of occupational diseases are well worked out J J WITTMER

The Medical Clinics of North America. Chicago Number January, 1948 Octavo Philadelphia, W B Saunders Company, 1948 Published Bi Monthly (six numbers a year) Cloth, $16 net, paper, $12 net

This is another useful collection of clinical reviews, chiefly on endocrinology Radioactive iodine, hypogonadism, endocrine management of breast and prostate malignancies are a few of the more important chapters There is one very good summary of precordial leads in electrocardiography by Katz which is worth careful study

The volume again is warmly recommended

ANDREW BABEY

Dermatology for Nurses By G H Percival, M D, and Elizabeth Toddie, S R N Octavo of 116 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $4 50

This book should have a place in the library of every training school for nurses Its illustrations in both monochrome and color are superb, and the instructions for nurses in the handling of skin cases are intensely informative and valuable, having been written by a nurse of vast experience Dr Percival gives the salient features of most of the ordinary skin diseases, with instructions as to their diagnosis and treatment He still clings to gentian-violet in the infective lesions and mentions penicillin in one or two lines NATHAN THOMAS BEERS

Private Enterprise or Government in Medicine By Louis Hopewell Bauer, M D Octavo of 201 pages Springfield, Illinois, Charles C Thomas, 1948 Cloth, $5 00

No better protagonist for private enterprise in medicine could have produced a more complete exposition of the problems involved than the author His well-documented thesis makes it "must" reading for all who are interested in the future of the practice of medicine as it would affect both the physician as the donor and the public as recipient of the best medical care BENJAMIN M BERNSTEIN

Brief Psychotherapy A Handbook for Physicians on the Clinical Aspects of Neuroses. By Bertrand S Frohman, M D With the collaboration of Evelyn P Frohman Large duodecimo of 265 pages Philadelphia, Lea & Febiger, 1948 Cloth, $4.00

Brief Psychotherapy is a simple evaluation of every-day psychology in clinical medicine as applied by the good old family doctor The author in clear language tells the family physician how to organize his daily application of psychology into a scientific pattern called psychotherapy

The reviewer recommends this book.

MORRIS ANT

Headache and Other Head Pain. By Harold G Wolff, M D Octavo of 642 pages, illustrated New York, Oxford University Press, 1948 Cloth, $12

Wolff explores each type of headache from the aspects of experimental physiology, pathology, diagnosis, and treatment, with particular emphasis on psychotherapy There is an especially detailed study of migraine, emphasizing the mechanism whereby emotions are translated into functional and even anatomic changes

[Continued on page 1100]

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[Continued from page 1098]

Migraine, histamine headache, hypertension headache, subarachnoid hemorrhage, and the neuralgias are only a few of the conditions analyzed in such detail that the physiology points clearly to diagnosis and treatment

This book can be highly recommended to any one interested in the subject of headaches

MORTON HUREWITZ

White House Physician By Vice-Admiral Ross T McIntire, Surgeon General of the Navy, in collaboration with George Creel Octavo of 244 pages New York, G P Putnam's Sons, 1946 Cloth, $3 00

When a doctor sees a patient daily for twelve years, and sees him always with the professional eye, his estimate of that patient's health is based on sounder data than the judgment of those whose opinion is determined by viewing a photograph And yet it cannot be denied that the appearance of the late president before his last sojourn to Warm Springs created a feeling of deep apprehension

What a responsibilty for a doctor to bear for so many years! Oft times was Dr McIntire faced with the problem of whether the patient or the welfare of the world were the more important Generally the decision was made by the patient And in that decision was revealed the wonderful character of the man

But Nature will not be denied Burdened physically by the tragedy of polio, and mentally by continued overwhelming responsibilities, his tissues had to succumb to the inevitable effects of wear and tear And, happening when it did, it became one of the great tragedies of history

One reads this book with a feeling of increased reverence for the chief character and a high degree of admiration for the physician S R BLATTEIS

An Integrated Practice of Medicine A Complete General Practice of Medicine from Differential Diagnosis by Presenting Symptoms to Specific Management of the Patient. By Harold Thomas Hyman, M D In Four Volumes and Index Octavo of 4,336 pages, illustrated Philadelphia, W B Saunders Company, 1946 Cloth, $50 set

Dr Hyman's *Practice of Medicine* is easily the best set of its kind available today In these volumes is contained a systematic discussion of all the problems likely to be encountered As might be expected from this gifted teacher, the relations of the basic sciences to clinical practice are lucidly explained, and as might be expected from an experienced practitioner, bedside management of the patient is expertly covered A feature of this "system" is a thorough discussion of the minor specialties so that the set may be considered an encyclopedia of medical knowledge It would be difficult to think of a more welcome addition to any doctor's library

MILTON PLOTZ

The Shame of the States By Albert Deutsch Octavo of 188 pages, illustrated New York, Harcourt, Brace & Co , 1948 Cloth, $3 00

Albert Deutsch is a writer, author, and a recorder of social conditions In 1946 and 1947 he visited about forty mental hospitals in different states, usually accompanied by a photographer He amassed a huge amount of documentary material dealing with the various psychiatric hospitals Some of these articles were published in *PM* but most of them were published in the book under review

The picture that he portrays is a most sordid one that should prick the public conscience and arouse the interest of state officials and public-spirited citizens to improve them He found conditions in public hospitals most shocking and horrible. The majority of them were ill-equipped, understaffed, and overcrowded, the food poorly prepared and inadequate He found hundreds of naked men and women herded in filth-infested wards, many of whom were in a semistarved condition, hundreds of sick people were shackled and bound to their beds And he discovered indisputable evidence of deaths caused by criminal negligence and manhandling There are many photographs of these revolting conditions

In the book he exonerates the physicians attached to these institutions and points out the handicaps under which they work, the poor pay, and the lack of facilities for improving their professional standards Moreover, he emphasizes the utter helplessness of members of the family of the mentally sick because of fear, shame, and confusion It is to the public at large that he directs this book so that adequate and proper methods should be used in improving the care of the mentally sick in our state hospital system It is a sad commentary that the author, who is an exponent of socialized medicine, should have found such conditions existing in our system, which is a pure form of state medicine This book should be read by all physicians and by all other intelligent people IRVING J SANDS

The Medical Clinics of North America. Nationwide Number March, 1948 Octavo Philadelphia, W B Saunders Company, 1948 *Published Bi-Monthly (six numbers a year)* Cloth, $16 00 net, Paper, $12 net

Another very practical and sensible set of discussions is added to the popular series of *Medical Clinics* A stiff tempering is applied to the early enthusiasm for vagotomy Arguments both for and against surgical treatment of silent cholelithiasis are a timely presentation in the current controversy over cancer of the gallbladder The Toronto group offers an excellent set of *clinics in biliary tract disorders* MAURICE TULIN

Mental Health in Modern Society By Thomas A C Rennie, M D , and Luther E Woodward, Ph D Octavo of 424 pages New York, Commonwealth Fund, 1948 Cloth, $4 00

This happy combination of authorship by a practicing psychiatrist and professionally trained social worker with ministerial background brings to the front for professional and lay reading a timely analysis of mental hygiene problems and their prevention and treatment which have grown out of the war and postwar periods

The volume, written in nontechnical language, is illustrated with case examples and pertinent diagrams All those interested in mental hygiene must consider this a fundamental book to be kept within easy reach FREDERICK L PATRY

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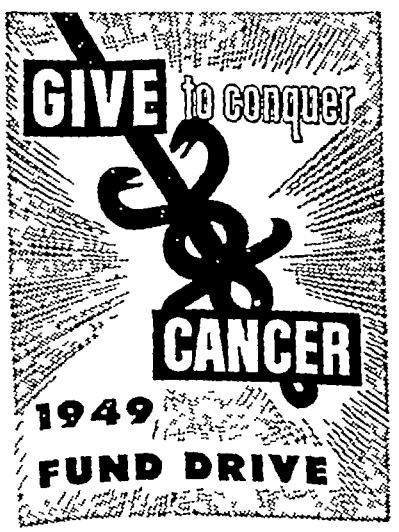
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Greene	M Viviano	Tannersville	W M Rapp	Catskill	M H Atkinson	Catskill
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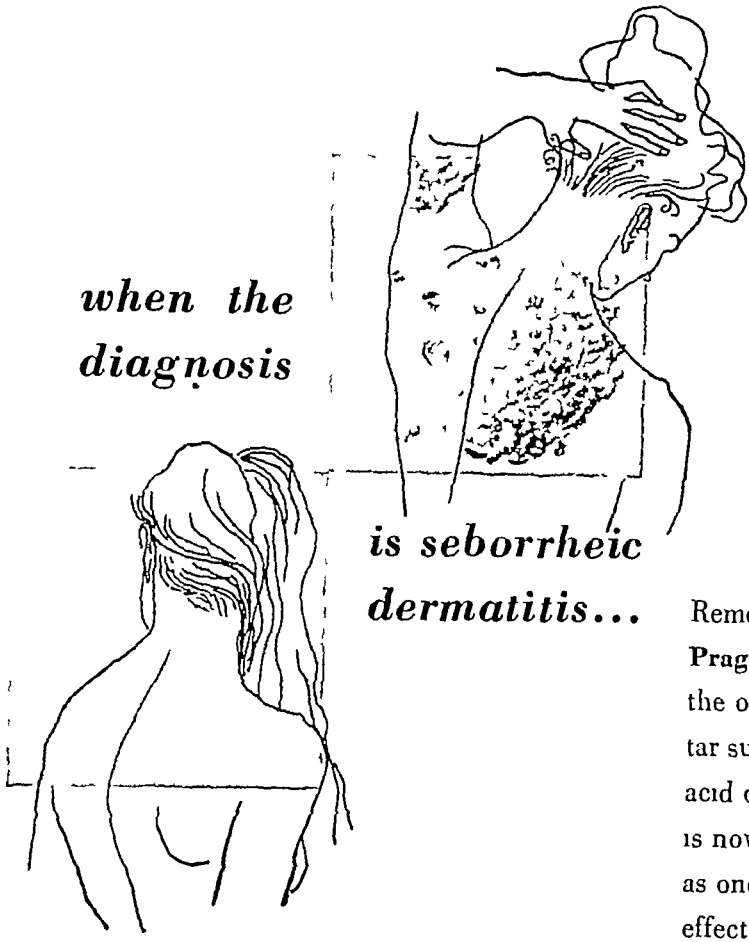
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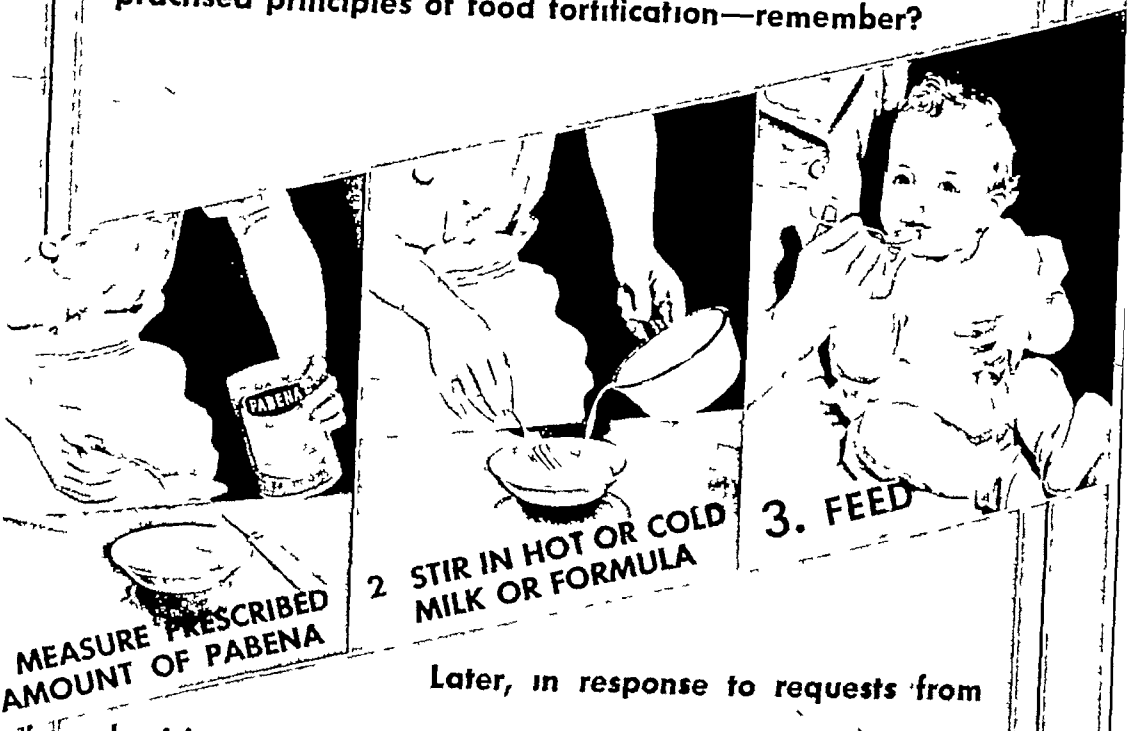
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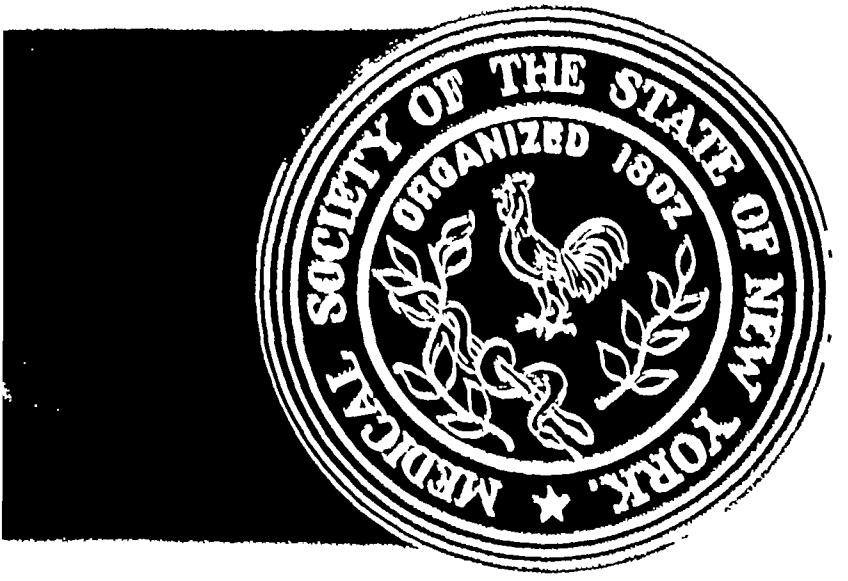


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NEW YORK STATE
JOURNAL OF MEDICINE



May 15, 1949

Scientific Articles

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Friedländer Bacillus Pneumonia Treated with Streptomycin

Response to Intravenous Typhoid Vaccine in Intractable Status Asthmaticus

Editorials

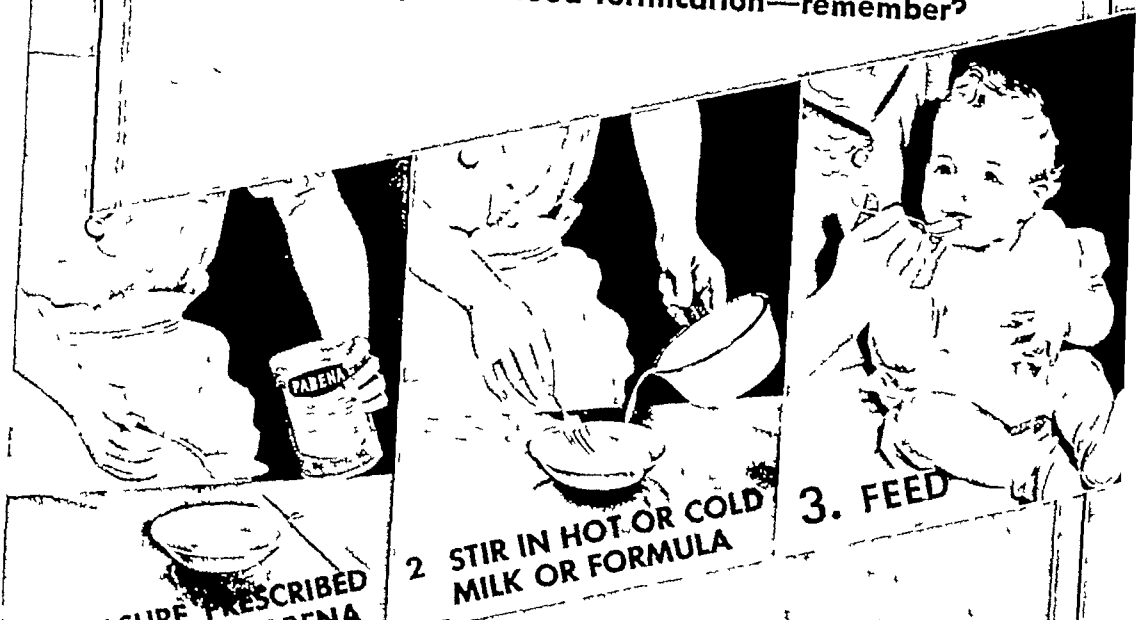
A Look at the

Developments in Pu
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Appetite as a Guide to N

For Complete Table of
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OCTOBER 17 — 22

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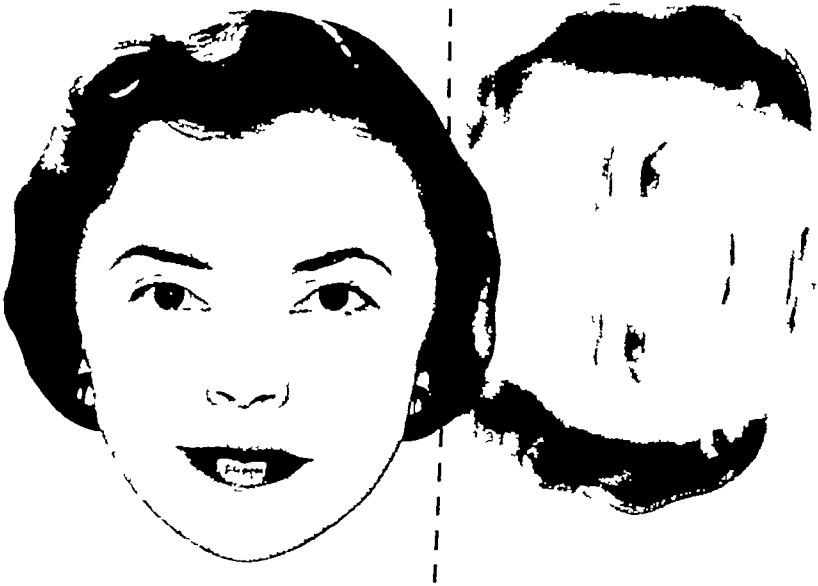
The change to October has been made in deference to requests from schools, colleges, adult education groups and community welfare organizations like the "Y's" They now look forward to wider and more effective participation because they can key the event into their health education and physical fitness programs early in the school term, thus avoiding vacation season interruptions

As National Posture Week enters upon its second decade, it is our privilege to thank the many, many physicians who have given it their approval as a worthy contribution to public health education We pledge ourselves to carry on in the future as we have in the last ten years with National Posture Week and the daily work of The Samuel Higby Camp Institute for Better Posture We shall do this to the limit of our resources in accordance with the ethical precepts of the profession.

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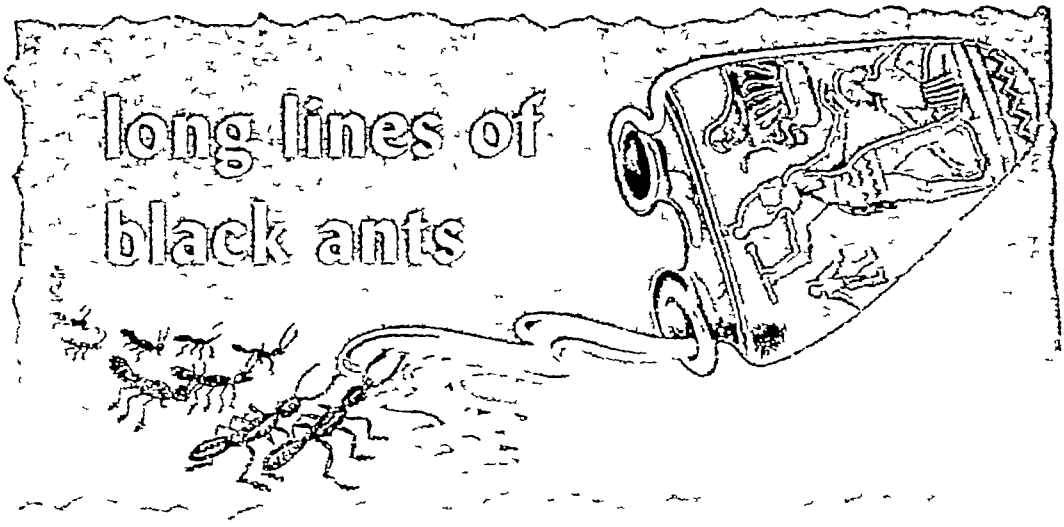
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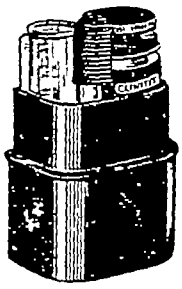
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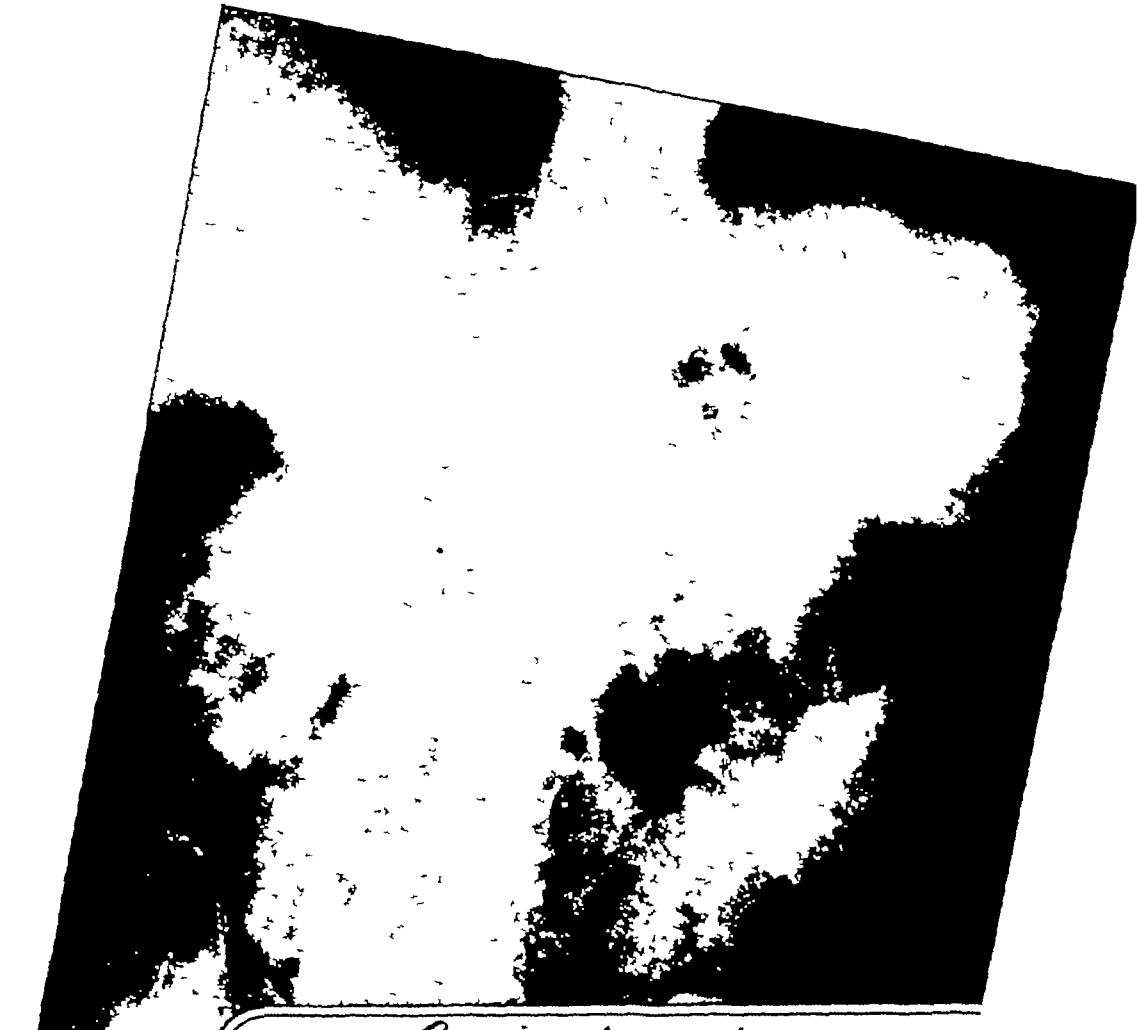
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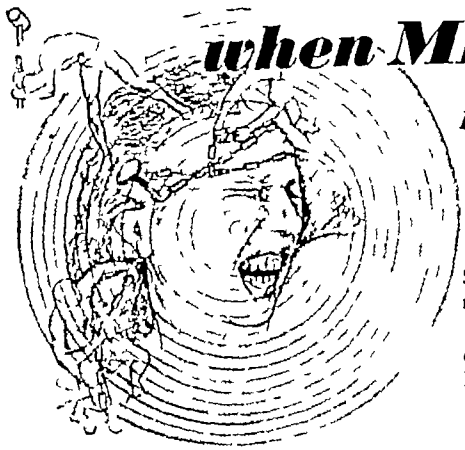
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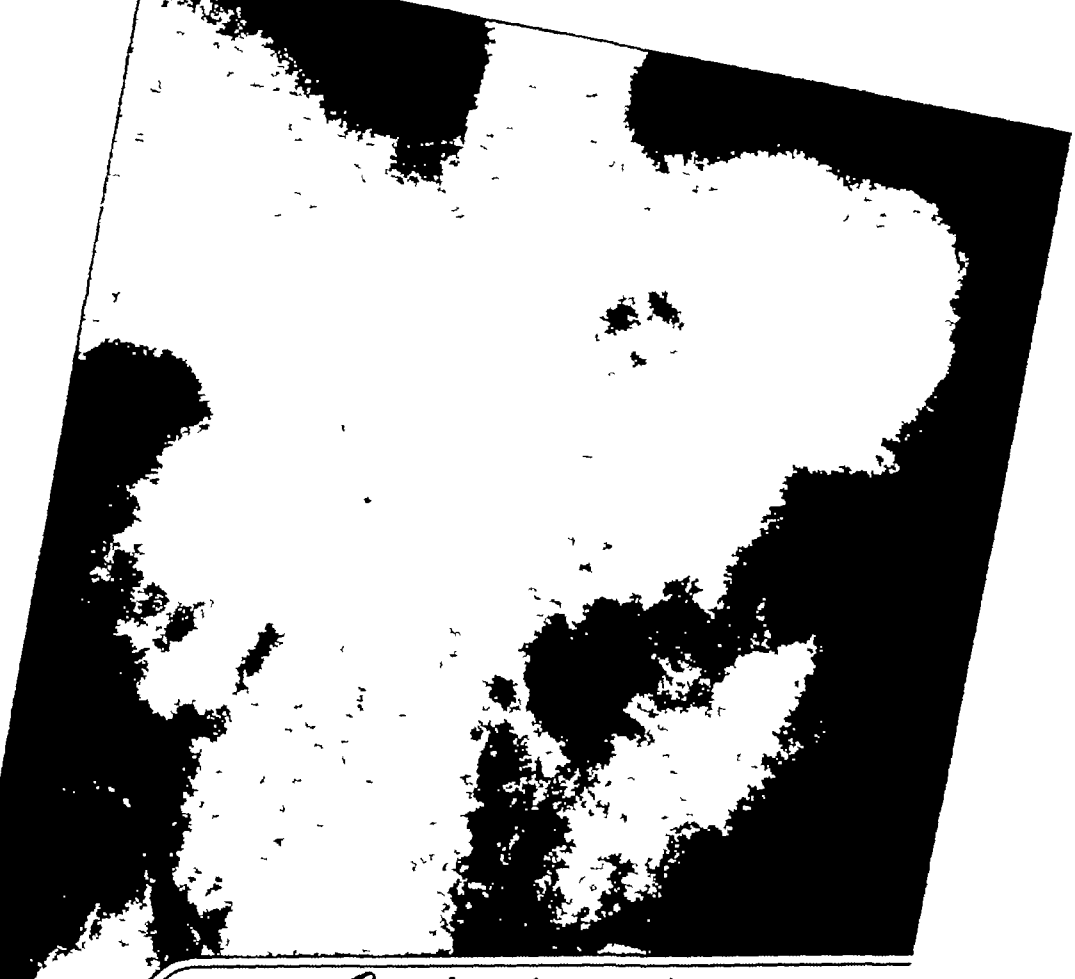
(Experimentally identified as E.C. 110)

1 Horton B T Ryan R E & Reynolds J L. Proc Staff Meet. Mayo Clinic 23 105, Mar 3 1948
2. Friedman A P N Y State Jl. of Med (in press)
3 Ryan R. E Postgraduate Medicine (in press)
4 Hansel F K. Annals of Allergy (in press)

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1 Underwood G B and Gaul L E: J A.M.A. 138 570 1948

2. Underwood G B Gaul L. E.; Collins E., and Mosby M.: J.A.M.A. 130.249 1946

3 Andrews G C: Diseases of the Skin Philadelphia W B Saunders Co 1946.

4. Gaul L. E: J.A.M.A. 127 439 1945

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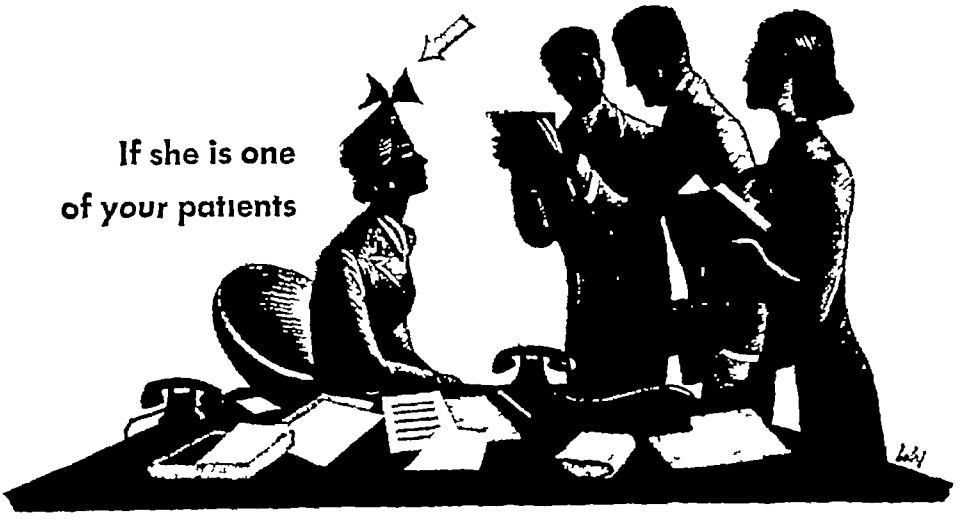
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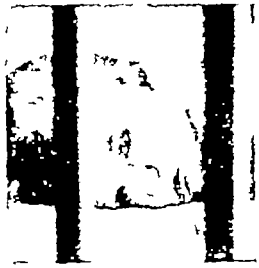
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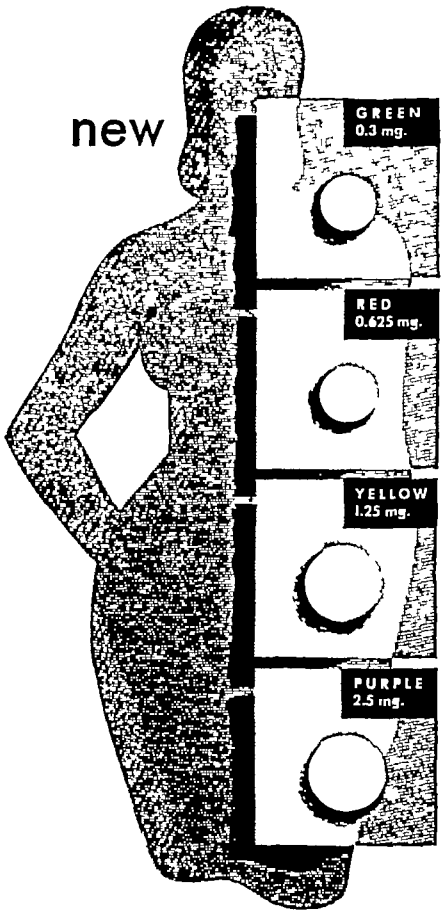
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★ Since the introduction of MACKESON'S MILK STOUT to America, this internationally-known brew has met with the most favorable acceptance by leading members of the medical profession ★ Brewed from the finest British malt, MACKESON S MILK STOUT is a product of the highest grade in respect to purity and body It differs from ordinary stout in that it contains the carbohydrates of the purest dairy milk which increase its protein content and nutritive value — and to which its distinctive mellowness and very palatable flavor are due ★ These special qualities of MACKESON S MILK STOUT have long been recognized as beneficial in all cases where a stout may be recommended on medical grounds.



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SUPPLIED: Bottles containing 6 oz.; also 1-lb., 5-lb., and 10-lb. containers.

Arlington

TESTS demonstrate *high biological value* in growth studies, *all recognized essential amino acids* provided in significant quantities

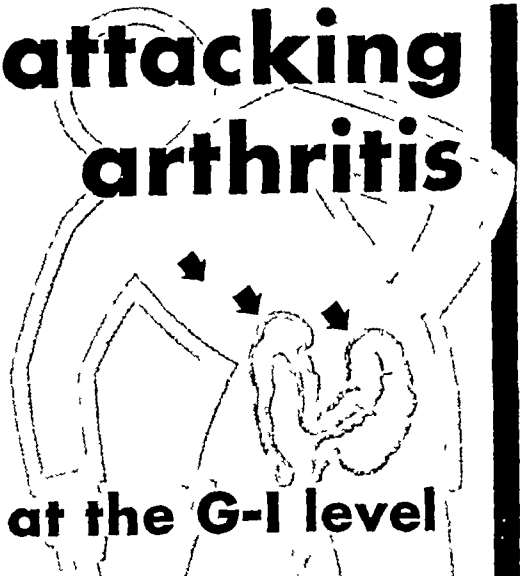
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attacking arthritis



at the G-I level

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*Nuzum F R.: In Diseases of the Digestive System ed by S A. Portis Lea & Febiger 1944

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occy-crystine

the sulfur-bearing saline eliminant

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relax the grip of spasm

The secret of Donnatal Elixir's unusual spasmolytic efficacy lies in its precise balance of the principal *natural* alkaloids of belladonna, plus its minimal content of phenobarbital • By blocking smooth muscle response to cholinergic nerve impulses these alkaloids act synergetically to break the links of spastic reaction and the sedative ingredient helps allay any psychogenic component • Controlled clinical studies—plus broad professional experience—attest its value in gastro-intestinal biliary urogenital respiratory or central nervous spasm

for both somatogenic and psychogenic cases

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Robins

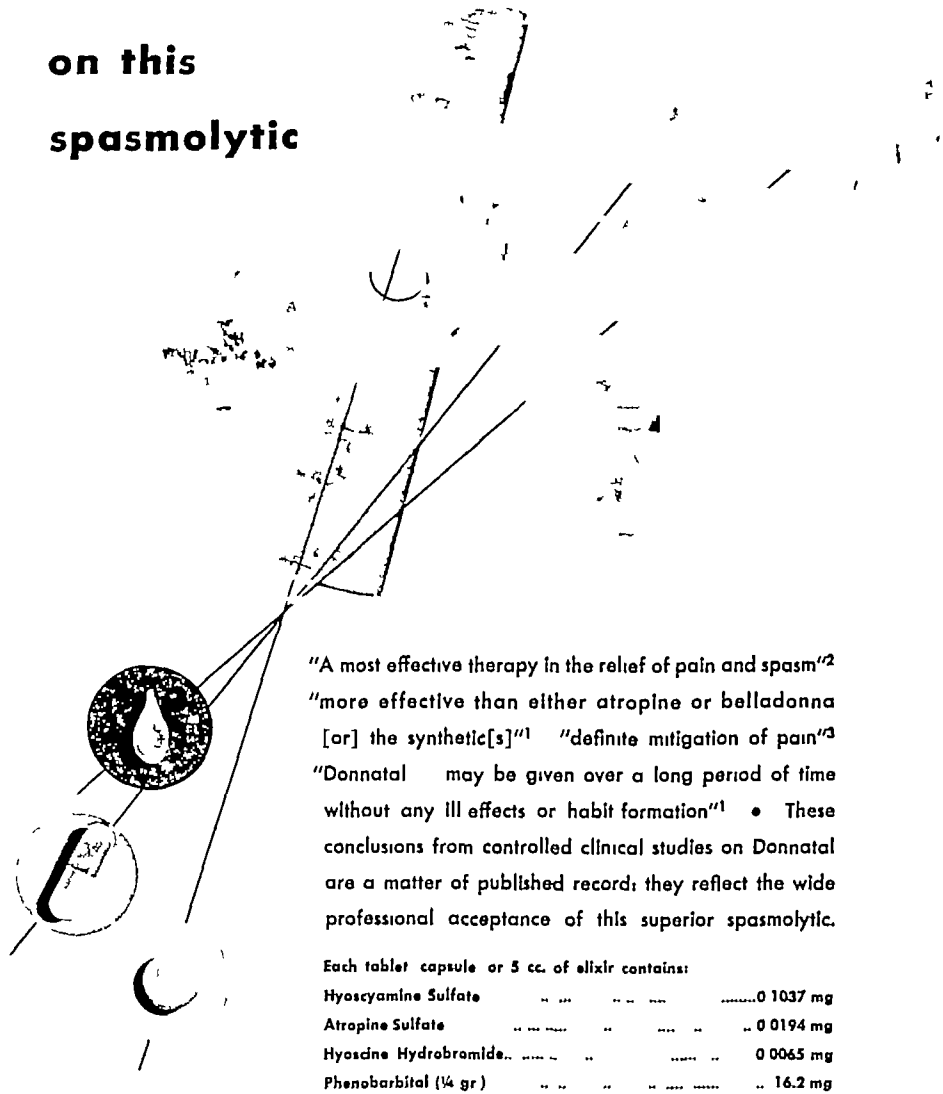
Also available as Donnatal Tablets and Donnatal Capsules

Each 5cc of donnatal elixir contains

Hyoscyamine Sulfate 0.1037 mg
Atropine Sulfate 0.0194 mg
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Phenobarbital 16.2 mg

A H Robins Co , Inc Richmond 20, Va ETHICAL PHARMACEUTICALS OF MERIT SINCE 1878

look at the record . . . on this spasmolytic



"A most effective therapy in the relief of pain and spasm"[2] "more effective than either atropine or belladonna [or] the synthetic[s]"[1] "definite mitigation of pain"[3] "Donnatal may be given over a long period of time without any ill effects or habit formation"[1] • These conclusions from controlled clinical studies on Donnatal are a matter of published record; they reflect the wide professional acceptance of this superior spasmolytic.

Each tablet capsule or 5 cc. of elixir contains:

Hyoscyamine Sulfate	0.1037 mg
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Hyoscine Hydrobromide	0.0065 mg
Phenobarbital (¼ gr.)	16.2 mg

A. H. Robins Co., Inc. Richmond 20, Va.

1 Kilstein R. I.: Rev. Gastroenterol. 14:171. 1947

2 Morrissey J. H.: J. Urol. 57:635. 1947

3 Ricci J. V.: In The City Hospital Year Book, 1946. New York, 1947

donnatal

tablets • capsules • elixir

natural belladonna alkaloids **a natural** in spasmolysis

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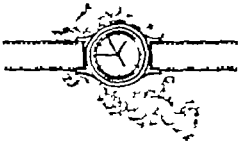
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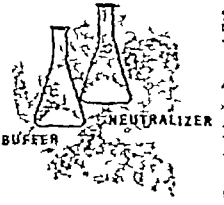
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Candy

MORE THAN JUST FOOD

Although candies are an excellent source of caloric food energy, and supply many valuable nutrients derived from the milk, cream, butter, nuts, peanuts, and eggs used in their manufacture, they provide more than calories and nutrients

Candies make a worth-while contribution to the joy of living They are among the foods which provide true gustatory satisfaction Taken at the end of a meal, they create a sense of having eaten well and are conducive to an aura of satiety which can have a beneficial influence upon the digestive processes

The child, the housewife, the worker, and the convalescent —all appreciate a piece or two of candy as the finishing touch of the mid day or evening meal

THE NUTRITIONAL PLATFORM OF CANDY

1 Candies in general supply high caloric value in small bulk.

2 Sugar supplied by candy requires little digestive effort to yield available energy

3 Those candies in the manufacture of which milk, butter eggs fruits nuts or peanuts are used to this extent also—

(a) provide biologically adequate proteins and fats rich in the unsaturated fatty acids;

(b) present appreciable amounts of the important minerals calcium, phosphorus and iron;

(c) contribute the niacin and the small amounts of thiamine and riboflavin contained in these ingredients

4 Candies are of high satiety value; eaten after meals they contribute to the sense of satisfaction and well being a meal should bring eaten in moderation between meals they stave off hunger

5 Candy is more than a mere source of nutriment—it is a morale builder a contribution to the joy of living

6 Candy is unique among all foods in that it shows relatively less tendency to undergo spoilage chemical or bacterial.

This Platform is Acceptable for Advertising in the Publications of the American Medical Association

COUNCIL ON CANDY OF THE National Confectioners' Association

1 NORTH LA SALLE STREET CHICAGO 2, ILLINOIS

The New Oral Treatment for

New Concept

Psoriasis and neurodermatitis are treated systemically in a new therapy developed clinically by Perlman[1]

The medication used is a refined grade of undecylenic acid specifically selected for oral administration Preliminary reports on clinical usage show definite response in a majority of the cases treated

Why and how this new form of undecylenic acid works is not yet known It is an odd numbered carbon atom unsaturated straight chain fatty acid, and may play an important role in abnormalities in fatty acid metabolism

Description

The undecylenic acid used by Perlman and others for their cases is now available under the name of Declid Undecylenic Acid Capsules

It must be emphasized that all the clinical work reported has exclusively employed only this particular grade of undecylenic acid Ordinary commercially available undecylenic acid supplied for *external uses* is not recommended since its possible effects when taken internally are unknown

Declid Undecylenic Acid is supplied in soft gelatin capsules 0 44 g Uncapsulated the acid is an oily water insoluble liquid with a fatty odor and bitter taste

Clinical Results

Favorable responses in 25 cases of psoriasis and neurodermatitis are reported by Perlman[1]

In the cases reported so far these improvements have been noted in varying degree in the different patients 1 Subsidence of itching 2 Complete or partial disappearance of lesions 3 The probable prevention of recurrence by maintenance dosage



Declid Undecylenic Acid Capsules, 0 44g each, are supplied in bottles of 100

In cases of psoriasis associated with arthropathies, Perlman- noted in a preliminary report that arthritic pains diminished or disappeared following oral undecylenic acid treat

On Prescription Only at Drug Stores

DECLID UNDE

Psoriasis and Neurodermatitis

ment. He has found relief and improvement from symptoms in 6 cases of arthritis and bursitis not complicated by psoriasis and urges further research by others.

Tolerability

Declid Undecylenic Acid has been administered in large daily dosages over long periods without severe side reactions or toxic symptoms.

After taking Undecylenic Acid some patients complain of a bitter taste in the mouth, mild nausea belching or dyspepsia These are relieved by antacids Increased bowel activity is sometimes noted When justified reduced dosage or temporary cessation of treatment is advised. These side effects in most cases, do not reappear when full dosage is resumed.

Dosage

Declid Undecylenic Acid is not a fast-acting drug Quick response should not be expected. The optimum dosage has not been determined. The physician must evaluate each case and adjust the dosage to the response.

The capsules should be taken between meals — *not* on a full stomach Suggested dosage schedule *First week* Four Declid Capsules 3 times daily *Second week* 6 Capsules 3 times daily *After second week* 8 to 10 Capsules 3 times daily if needed and continued for several months or until complete disappearance of lesions Tolerability is enhanced by taking the capsules with a carbonated beverage water or ginger ale

If high dosages are taken over long periods frequent urinalyses and blood counts are recommended.

Adjunctive Therapy

In some cases the response to Declid Undecylenic Acid has been accelerated by external use of a medicated ointment such as ammoniated mercury 3% and salicylic acid 3% in anhydrous lanolin petrolatum base.

Contraindications

Oral therapy with Declid Undecylenic Acid is new and much is still unknown about its effect on metabolism Therefore *it should be administered with caution,* and not to debilitated diabetic or hypertensive patients or those with coronary or gall bladder symptoms

REFERENCES

1 Perlman H H.. Undecylenic Acid Given Orally in Psoriasis and Neurodermatitis J.A.M.A. 139 444 (Feb 12) 1949

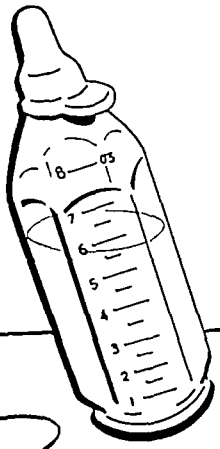
2 Perlman, H H Undecylenic Acid by Mouth in the Treatment of Arthritis and Bursitis Urol & Cutan Rev (Feb) 1949 P 103

Caution

Declid Undecylenic Acid is to be dispensed only by or on the prescription of a physician Literature available on request.

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**Page 51, Infant Nutrition Jeans and Mariott, 1947*

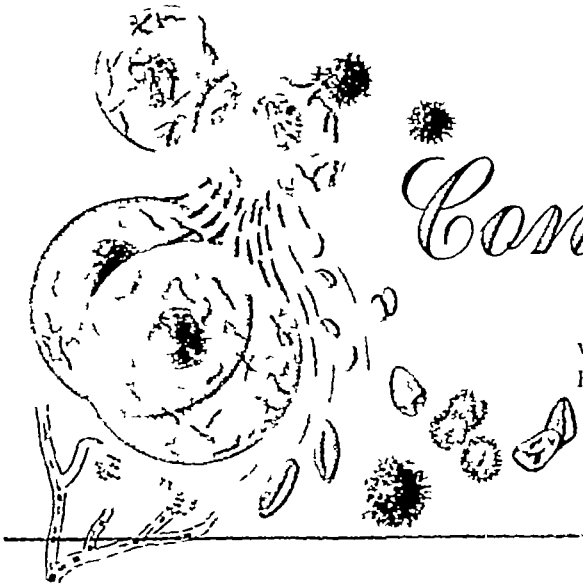
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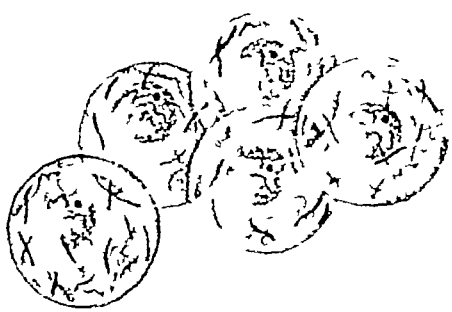
OF A SENSITIZED BODY CELL

with an allergen and subsequent release of histamine is considered to be the mechanism of allergic disorders

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The Medical Man who Cares says

CARSTAIRS White Seal

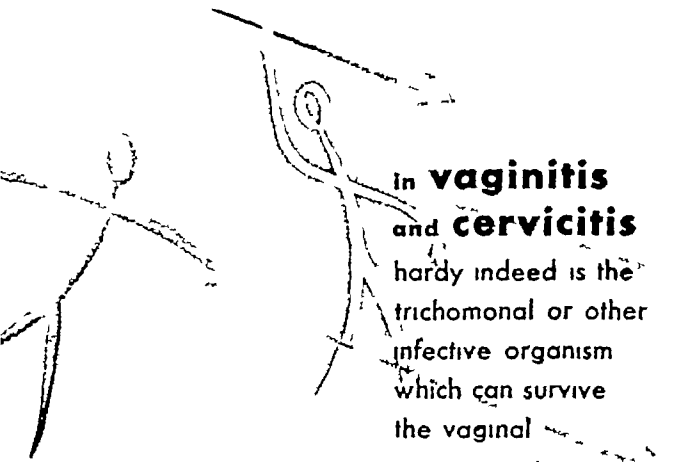
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when the problem is impaired fat absorption **MONITAN** is the solution



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*Jones, C. M.

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* Jones, C M, Culver, P J, Drummey, G D, and Ryan, A E Ann Int Med 29 1,1948

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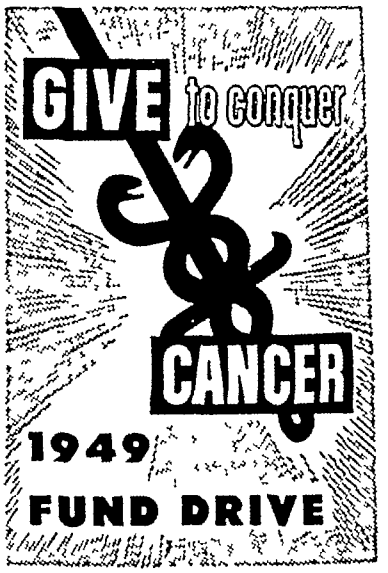


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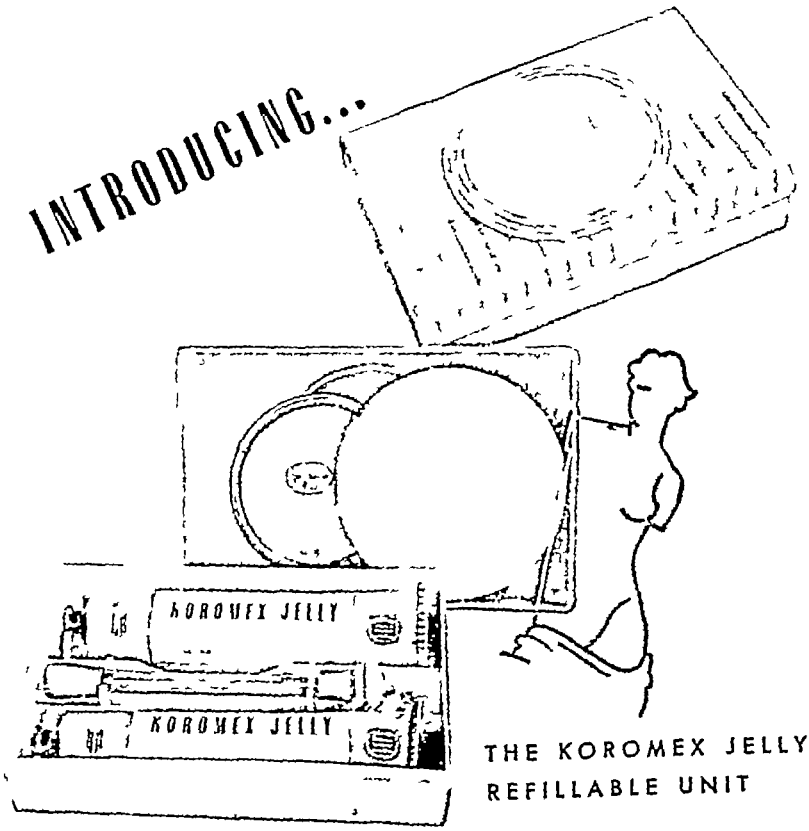
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Findings from the Saratoga Spa records*



CARBON DIOXIDE BATHS

Many observations have been made on the changes which occur in the alveolar carbon dioxide tension, the skin temperature, and the respiratory metabolism of human subjects who have been submerged in baths of either carbon dioxide water or plain water

The alveolar carbon dioxide tension showed a 5 to 10 per cent rise during baths in the carbon dioxide water, and returned to the resting level about twenty minutes after the bath There was no significant change during baths in plain water

There was no essential difference in the skin temperature during the carbon dioxide and plain water baths

There was a marked increase in the elimination of carbon dioxide in the expired air during the time the patient was in the mineral water bath This increase did not occur in the plain water bath

No evident variation in the oxygen consumption occurred with either bath

The possible source of the excess carbon dioxide is discussed The evidence supports the theory that this extra carbon dioxide is obtained by absorption of the carbon dioxide in the water through the skin and its subsequent elimination through the lungs

It is, therefore, concluded that the results obtained in the treatment of patients with carbon dioxide mineral water baths depend, in part, at least, on the absorption of carbon dioxide through the skin and its subsequent influence on the circulation and nervous system which occurs in the process of its natural elimination by way of the blood stream and the lungs

* *As printed in American Heart Journal, Vol 29 No. 1 Pages 44-61 January 1945.*



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For professional publications of the Spa, and physician s sample carton of bottled waters with their analyses, write W S McClellan, M D , Medical Director, Saratoga Spa, 155 Saratoga Springs, New York

Listed by the Committee on American Health Resorts of the American Medical Association

THE EMPIRE STATE'S CONTRIBUTION TO THE MEDICAL PROFESSION



Optimal Nutrition

SO VITAL FOR OPTIMAL HEALTH

In the achievement and maintenance of optimal health, no other single influence looms so vital as sound nutrition In fact, so important is this principle to preventive medicine that *optimal nutrition* has become the basis of all modern day health programs

When nutritional health is threatened, as in dietary restrictions often imposed by disease, or during convalescence, or when the nutrient intake is insufficient because of other reasons, the *multiple dietary supplement* Ovaltine in milk is especially useful for overcoming nutrient deficiencies of the diet

Three glassfuls daily may readily supplement even poor diets to adequacy Easy digestibility makes its many valuable nutrients—vitamins, minerals, biologically complete protein, and food energy—quickly available The pleasing flavor adds to its wide applicability and usefulness

The table below gives the amounts of nutrients in three glassfuls of Ovaltine in milk

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Ovaltine

*Three servings daily of Ovaltine each made of ½ oz of Ovaltine and 8 oz of whole milk * provide-*

CALORIES	676	VITAMIN A	3000 I U
PROTEIN	32 Gm	VITAMIN B_1	1 16 mg.
FAT	32 Gm	RIBOFLAVIN	2.0 mg.
CARBOHYDRATE	65 Gm	NIACIN	6.8 mg.
CALCIUM	1 12 Gm.	VITAMIN C	30 0 mg
PHOSPHORUS	0.94 Gm.	VITAMIN D	417 I U
IRON	12 mg.	COPPER	0.5 mg.

*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving they are virtually identical in nutritional content.



Findings from the Saratoga Spa records*



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CALCIUM	1 12 Gm	VITAMIN C	30 0 mg.
PHOSPHORUS	0.94 Gm	VITAMIN D	417 I U
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Two kinds, Plain and Chocolate Flavored. Serving for serving they are virtually identical in nutritional content

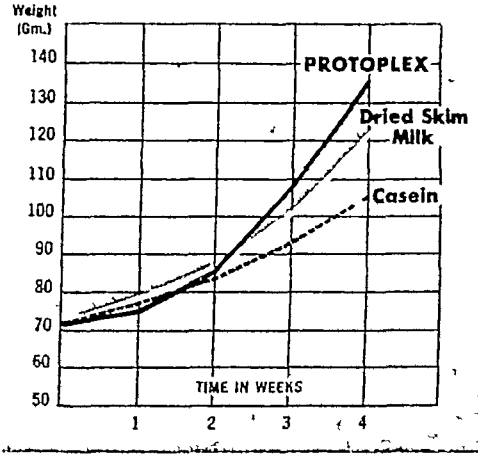


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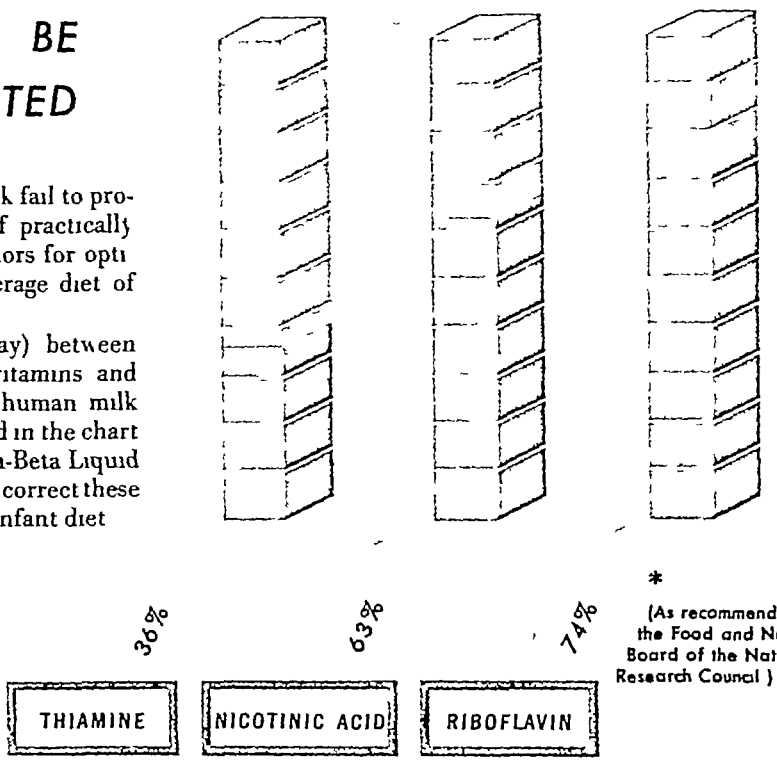
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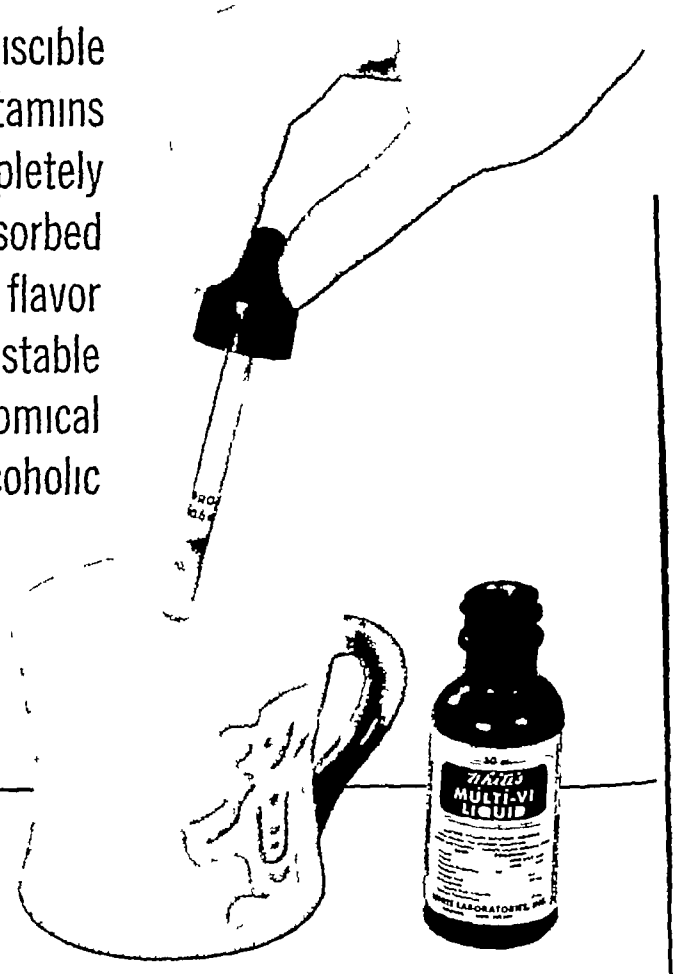
Kasdon S C and Cornell, E L Vitamin B Complex in Neonatal Feeding, Am Jl Obs & Gyn. 56.253 (Nov) 1948

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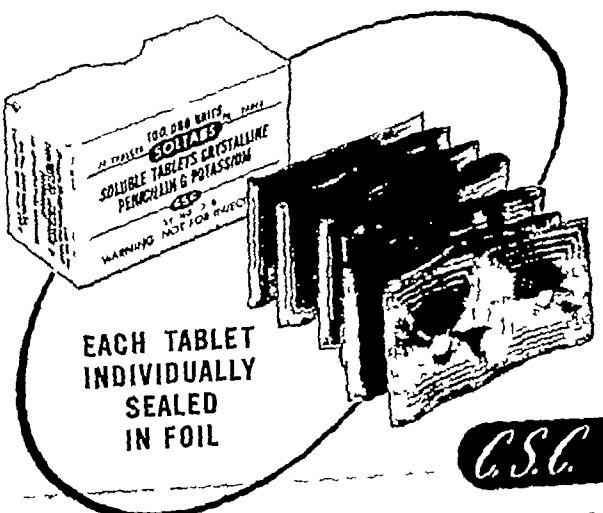
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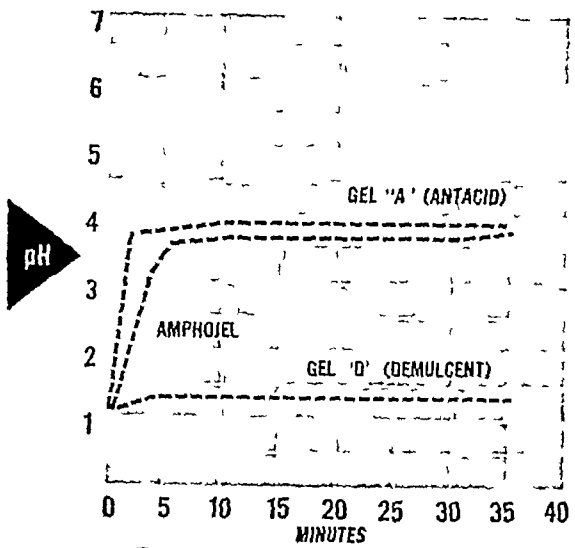
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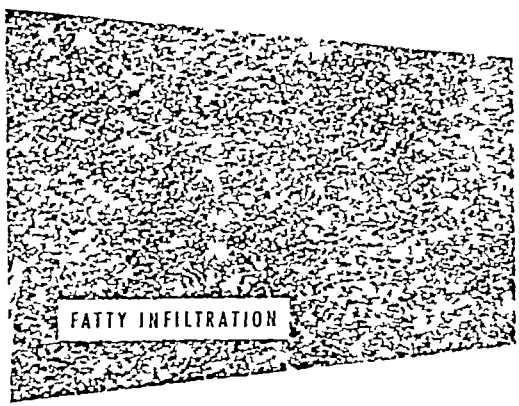


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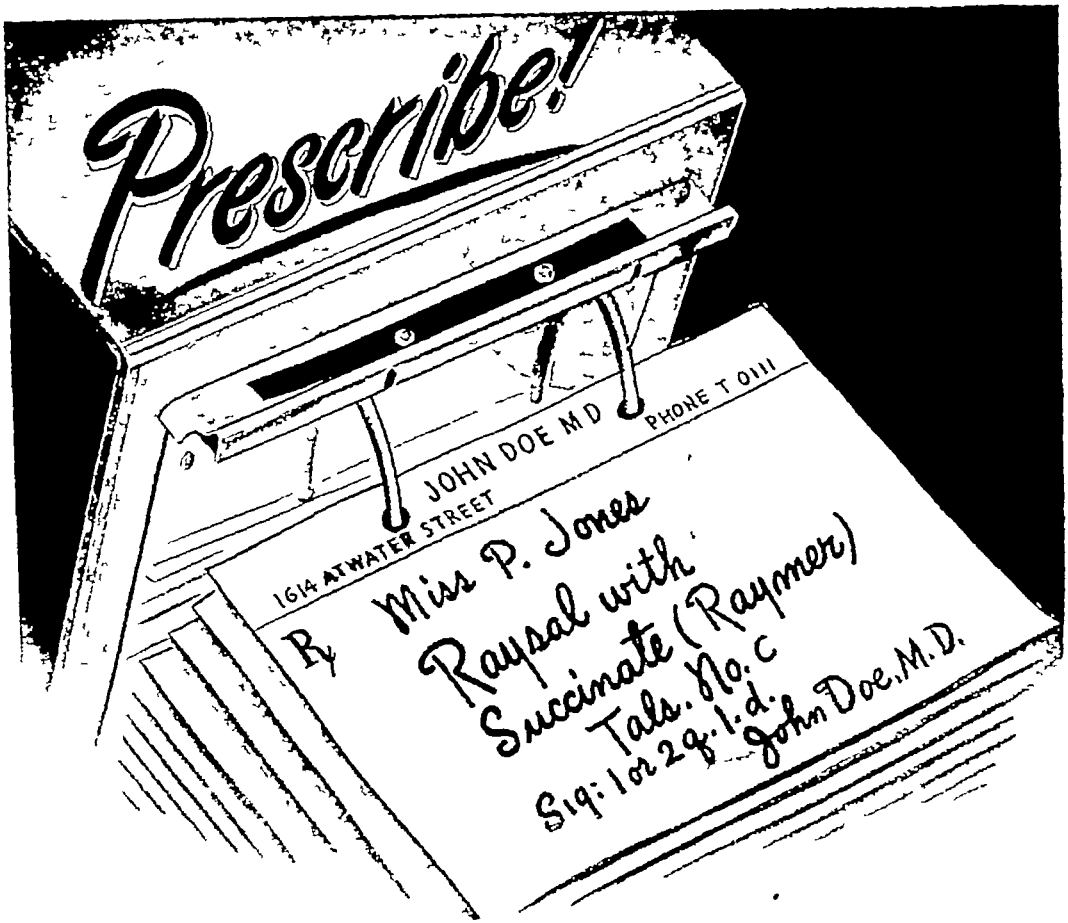
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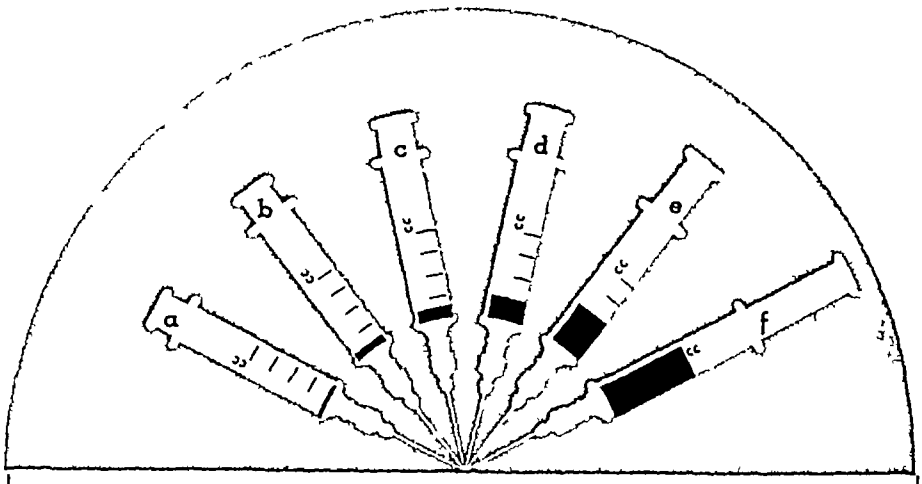
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VOLUME 49 MAY 15, 1949 NUMBER 10

Editorials

A Look at the Record

At hearings on H R 782 by the House Committee on Expenditures in the Executive Departments, Dr John W Green, a member of the House of Delegates of the A.M.A., spoke on behalf of that body favoring the creation of a Department of Health under a Secretary with cabinet status rather than a department covering education, welfare, and health

The American Medical Association is strengthened in its position that there should be a single Department of Health by the reports recently submitted to the Hoover Commission. It is apparent that one of the nation's greatest interests is in the health of its citizens, and health is of such a nature that, to be most effective, it must be individualized The Association has recently issued a program emphasizing the importance of this point of view Dr Green said that examination of the minutes of the House of Delegates of the American Medical Association shows that considerable thought was given over a period of years to the formulation of a separate Federal health agency References and records of action taken appear repeatedly in the minutes. As early as 1884 at the annual session it was urged that a separate Department of Health be established under a cabinet officer In 1891, a committee of 23 members was appointed to petition Congress on this matter Further references appear in the minutes of the annual sessions each year from 1891 up to and including 1902 The subject apparently was not discussed during the three succeeding years, but reappears annually from 1906 to 1913, and from 1917 to 1930 After five years, a resolution was introduced into the special session of the House held in Chicago in 1935 urging the President of the United States to establish a separate Department of Health. At the session of the House of Delegates in San Francisco in 1938, the House adopted the following recommendation of the reference committee on legislation and public relations " your committee recommends that the house of delegates reiterate its demand for a Federal executive department to be designated as the Department of Health, with a doctor of medicine at its head who shall have general supervision and direction of the affairs of the Federal govern-

ment pertaining to the health of the people" From the foregoing it will be seen that the American Medical Association has repeatedly gone on record as being desirous of seeing legislation passed leading to the formulation of a separate national Health Department Current opinion in the Association at the present time is to the effect that this department should be a department separated from other activities of the government

Congress in 1879 passed legislation authorizing a National Board of Health The functions and relations of this unit with other departments were very poorly defined in the law, and no money was appropriated for its activities The legislation remained on the statute books without any action until 1893, at which time it was repealed

It has been estimated that educators are concerned in some manner with approximately 28,000,000 members of the population Social security has contact with about 51,000,000 people, including recipients as well as taxpayers Medicine, on the other hand, has a much broader and more personal contact and, in fact, enters into the lives of all of our people

There is some difference of opinion as to whether the secretary should have the qualifications of a practicing physician, or whether his duties could not be discharged as well if he were not a medical practitioner We cannot accept the statement which has been made, that a physician competent to manage such a department or bureau cannot be found [1] To us it seems that the first function of such a department should be to guarantee the public that it will have available adequate medical care This involves decision and perspective in the medical and public health fields which only a trained practicing physician can possess Good administration is vital, and the secretary should have as his aide an undersecretary who is a thoroughly trained administrator

The medical and allied professions have always responded admirably to the call of government for the security and defense of this nation Under these proposals the country's medical personnel and facilities lend themselves to effective cooperation and support of any defense measure or plan of organization adopted

[1] Dr Ray Lyman Wilbur former Secretary of the Interior a member of the cabinet of President Herbert Hoover 1929-1933

Publications of the Society

The columns of the JOURNAL are now, as in the past, principally devoted by the Society to the publication of the excellent scientific papers representing the research and clinical observations of the membership and of guests invited to the Annual Meeting A large number of new contributions to scientific progress in medicine as well as extended clinical observations and reports emerge from each meeting

Subject only to necessary editing to compress the contents and illustrations within the limitations of paper available and mechanical costs of production, no restrictions impede the free progress of scientific and clinical knowledge One of the purposes of the establishment of the JOURNAL was to encourage in the membership of the Society potential medical authors, another purpose was to create a medium for the distribution to the membership of a continuous record of official business, so that each physician could know and preserve if he wished a handy reference to the transactions of his State Society These purposes have been fulfilled

As the Society grew, the necessity for a new function arose, that of interpreting the doctor to the public The JOURNAL could not be adapted to this purpose In consequence, a Bureau of Public Relations was established to undertake this function Writing for the public differed greatly from the kind of scientific expression to which physicians were trained and was acknowledged to be a special technic However, such a bureau had to be integrated with the scientific publication and with the *Directory* This was accomplished finally about 1937 by the establishment of a House of Dele-

gates Committee on Publications, with the Bureau of Public Relations represented by its Director as a member

Through releases to the press, and by publication of its mimeographed *News Letter*, the Public Relations Bureau conveys news of the Medical Society of the State of New York to sources outside the profession and to the component county societies This news is in compressed form and can be circulated quickly following the occurrence of any newsworthy e
in terms the man on the
comprehend

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under the guidance o
Committee and the Pub... Relations Committee The former also publishes the *Directory* at intervals ordered by the House of Delegates, and this is sent free to every member of the Society in good standing

Current Editorial Comment

Name Committee Head Dr Theodore J Curphey, Chief Medical Examiner for Nassau County, has been named chairman of the Council Committee on Public Health and Education of the Medical Society of the State of New York.

Dr Curphey was appointed to fill the place left vacant by the death last December 20 of Dr Oliver Wendell Holmes Mitchell, professor of hygiene and public health at Syracuse University As chairman of the Committee of Public Health and Education, Dr Curphey will carry on the program of postgraduate medical education which last year provided lecturers and teachers for a total of 180 medical groups in various parts of the State This program, which the late Dr Mitchell was instrumental in developing with the cooperation of the New York State Department of Health, has become increasingly important in bringing to practicing physicians many of the latest developments in the medical sciences

The Legislative Bureau. This important function of the Medical Society of the State of New York, headed by the Executive Officer, Dr Robert B Hannon, and the hard-working Council Committee on Legislation, merits far more recognition than is seemingly accorded to it by our membership In this State the legislative session is short, commencing in January and ending usually late in March or early in April Of recent years the flood of bills submitted has become ever greater, and those directly or indirectly affecting medical education, research, and the practice of medicine in the State have become more complex and wider in scope

The excellent *Legislative Bulletin* prepared by Dr Hannon and sent out by the Executive Office in Albany provides information and comment on all legislative proposals affecting medicine and the public health, together with notice of the state of progress of the individual measures The editors of the JOURNAL regret that, because of the short legislative session, and the unavoidable lag in editing and printing of material, we are precluded from making extended comment on current legislation in our columns for the benefit of our membership However, the *Legislative Bulletin* and the *News Letter* of the Public Relations Bureau do reach a large number of key personnel, legislative chairmen of the constituent county societies for example, within a short time after important legislation is introduced at Albany

Although the JOURNAL cannot report "spot news," it can remind the membership of the Medical Society of the State of New York of the importance of personal communication with members of both branches of the legislature Only if the assemblymen and senators know your opinions can they act upon them Assist your Executive Officer by making your views known

What Every Doctor's Wife Should Know An exceedingly valuable booklet with this alluring title has been issued by the Public Relations Bureau of the State Society It is a study guide in the problem of medical care prepared by the Woman's Auxiliary of the Nassau County Medical Society and constitutes an excellent basis for similar groups throughout the State Great credit is due to the ladies who have instituted this important activity, and the booklet is worthy of attention Doctor's wives can do a great deal to bring the problems associated with medicine to the attention of their individual communities

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DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health

William A Brumfield, Jr , M D , Editor

Medical Profession, Hospital, and Health Department Cooperation to Improve Care of Newborn Infants

It is unnecessary to dwell on the fact that every newborn infant in a hospital should be surrounded by a system of safeguards designed to afford the maximum feasible protection from infection The solution of the complex problem of managing a nursery in such a way that high standards of care are maintained around the clock requires from the medical profession the type of leadership and teamwork with the hospital administration, nursing profession, and health departments referred to below

One of the potential disasters facing every hospital administrator, physician, and nurse responsible for the care of newborn infants is epidemic diarrhea of the newborn The clinical picture, which is grossly the same in the various outbreaks, is apparently due to a variety of etiologic agents The mechanism of spread is not always evident from epidemiologic study The mortality rate varies from zero to fifty per cent with no objective criteria for predicting the ultimate outcome An approach to control must be in part specific and in part empiric and aimed at preventing the introduction and spread of infection in hospital nurseries The adoption and application of minimum standards for nursery care of newborn infants is the inevitable answer to the problem in the light of our present knowledge

The basis for the standards adopted by the Public Health Council has several components Epidemiologic study of twenty-eight epidemics of diarrhea reported in New York State during a six-year period, comprehensive survey of scientific literature, recommendations of the American Academy of Pediatrics, recommendations of the Children's Bureau, analysis of the Michigan State Health Department's five-year research studies of etiology and prevention, and laboratory studies in the Division of Laboratories and Research, State Department of Health [1]

Appropriate committees of the Medical Society of the State of New York were consulted, together with executives of the State Hospital Association, the chairman of the subcommittee on terminal heating methods of the American Hospital Association, professors of pediatrics in New York State, and many other consultants and investigators interested in the problem

During the last eight months of 1948 the standards have been presented to the upstate hospitals through official notifications and appropriate literature dealing with the problem Eleven institutes on diarrhea of the newborn were attended by 982 hospital administrators, nurses, practicing physicians, and health officers Consultation to individual hospitals by health department personnel is continuing to assist the hospitals in establishing policies and procedures which will meet the principles of nursery care established by the regulations effective January 1, 1949

The standards have been endorsed individually by members of the Committee on Fetus and Newborn of the American Academy of Pediatrics and sent by the Committee to its subcommittees in forty-six states and the territories with the recommendation that similar legislation be secured Current editorial comment has approved the new regulations [2] Thus the New York State cooperative effort by the medical profession, hospitals, and health departments to improve the standards of nursery care emerges

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[1] Regulation 35 Chapter II Sanitary Code State of New York. Adopted January 16 1948 effective January 1 1949 Published in *Health News Supplement* February 16 1948

[2] New England J Med 238 484 (Apr 1) 1948

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Appetite as a Guide to Nutritional Needs

It is not uncommon for a physician who has prescribed a specific corrective diet to hear his patient say, "Doctor, my appetite will guide me Somehow I just don't like things that are not good for me" Such a comment may be related to a fairly common belief that when animals and children are left to their own devices, uninfluenced by education, example, religion, or other considerations, they will select an adequate diet if appropriate foods are available If this is true, many of the studies in the interest of better nutrition are obviously unnecessary and even wrong Since the busy physician infrequently has his attention called to the pros and cons of this complicated question, it is the purpose here to review briefly the ideas and the experiments which are pertinent to the subject

Appetite is the basis of a voluntary food consumption which is stimulated by pleasurable sensations and particularly by the body's need of food Richter adheres to the view that appetite can serve as a reliable guide to nutritional needs [1] He explains the phenomenon on the basis of instinct or "sixth sense" and supports this hypothesis by reports which indicate that parathyroidectomized rats show an increased appetite for calcium, adrenalectomized animals for sodium, and pancreatectomized animals a decreased carbohydrate and increased fat appetite These findings, together with studies of various purified or synthetic nutrients, have caused this group to conclude that a close relationship exists between appetite and nutritional needs which is reflected in specific choices in response to the internal environment and independent of experience [1,2]

Others who are impressed by the important role that appetite can play in the right food selection believe that ability to discriminate depends, not on instinct, but on an association between the distinctive character of the diet and the beneficial effects experienced from its consumption Thus they speak of a "learned" or "educated" appetite, which results in right choices [3]

There is little support for either of these views that appetite, either through a "sixth sense" or by becoming educated, results in correct nutrient selection Scott and his associates have published a series of papers on the subject during the last five years These studies have dealt with various proteins, fats, carbohydrates, minerals, vitamins, and flavors In discussing the results, Scott stresses the significance of hunger for calories but considers that preferences for specific kinds of foods "to be haphazard as regards nutrition," leading with equal probability to good or bad choices [4]

Davis has published two studies on infants who, when weaned from the breast, were never subjected to parental guidance in their eating habits, nor had they been given processed or "well-seasoned" foods [5,6] The author reports that the infants chose, from a supply of simple and natural foods, diets which were satisfactory for their development The foods made available were of high nutritional quality, however, and sweet desserts, candy, and processed foods were not included The eating was under a supervised self-demand schedule, which is now recognized to give better results than a precise clock-run regime It is clear in these studies that, by reducing the

possible errors of selection to a minimum and by promoting the proper attitude toward food, the results were good It was not clearly demonstrated, however, that these results reflected an instinctive or learned appetite based upon specific nutritional needs

The evidence which has been reviewed for this page reveals many striking examples of wise choices based on instinct or beneficial experience Many experiments reveal, however, examples of a total failure to take advantage of an opportunity to choose a diet in accordance with nutritional needs, even under apparently very favorable conditions On the basis of the present evidence it must be concluded that, in general, appetite is an uncertain guide to nutritional needs except in the case of calories

With the advantage of some experimental evidence, physicians may find it of interest to question further those patients who believe they are endowed with a power of selection of food which is nutritionally adequate They may find that some patients use the device of rationalization to evade the emotional impact which they experience with a change of food habits At present, it appears certain that the doctor should insist on his diet prescription and not leave to chance the inclusion or deletion of valuable nutrients

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DEVELOPMENTS IN PUBLIC HEALTH

[Continued from page 1148]

as a pioneer effort attracting national interest The success of the program rests with the physicians, administrators, and nurses responsible for the care of the newborn Sound medical leadership and support of the administration and of the nurses is mandatory if a hospital is to succeed in providing continuous high level protection for infants Physicians should lead the way in establishing policy through committee action, through setting the level of nursery technic by example in handwashing, gowning, prompt use of "suspect" nurseries, and supporting nurses in their efforts, and through interpreting favorably to the public simplified technics, changes in hospital routine, and restrictions on visitors No person is in a more responsible or opportune position for the protection of the newborn and the education of the public than the practicing physician

This article was prepared by Ray E Trussell M D professor of preventive medicine Albany Medical College

Scientific Articles

HISTAMINE IONTOPHORESIS IN THE THERAPY OF MULTIPLE SCLEROSIS

HAROLD A ABRAMSON, M D , New York City

(From the First Medical Service and the Laboratories of Mount Sinai Hospital)

THE treatment of multiple sclerosis by the intravenous administration of histamine, reported by Horton and his coworkers, has met with success in certain cases [1–4] Intravenous administration of this drug, however, has several disadvantages (1) The veins must be punctured repeatedly for months and possibly years, (2) sterile equipment must be employed, (3) a physician or other highly trained personnel must administer the treatment, (4) it is expensive, and (5) hospitalization is desirable

Previous investigations by the writer and his coworkers have shown that if histamine is introduced into the human skin by iontophoresis* (electrophoresis), the drug may remain in the pores of the skin for as long as two weeks [5–8] Histamine depots in the skin are readily demonstrated by using the positive pole over the depot to produce a secondary whealing reaction after the wheal has disappeared, or, by using the negative pole, the drug may be withdrawn electrophoretically into the absorbent material The histamine in the absorbent material may then be demonstrated by iontophoresis into another site by wheal formation Although there was evidence that barriers existed within the pores to prevent diffusion readily, it appears on the basis of the data to be presented here that these barriers are broken down with sufficiently high concentrations of histamine and that histamine is released spontaneously into the blood stream from the depots in the skin without an imposed electrophoretic field

It is the purpose of this communication to show that comparatively large doses of histamine may be given by iontophoresis without damaging the skin in cases of multiple sclerosis By using the direct current in this way the general pharmacologic vasodilating effect is readily obtained by the iontophoretic technic By suitably controlling the area of the electrode, the concentration of the drug, the current, and the time, iontophoretic therapy is essentially transformed into the equivalent of intravenous therapy without, however, puncturing the skin No sterile solutions are required The electrical method is feasible without damage to the skin and does not require hospitalization. Most important is the fact that it is simple enough to be used in the home by the patient and his family, after proper instruction and using equipment costing less than $50 It is anticipated that the simplicity of the equipment will adapt itself to fulfilling the criteria of therapy suggested by Brickner and Franklin and Franklin and Brickner, who stated, "The hypothesis calls for continued vasodilatation of the vessels of the nervous system as well as for the prevention of spasm Both these measures should be enforced for twenty-four hours a day A drug-free interval of even a few minutes would suffice for an attack."[9–11]

Although the iontophoretic method has not been employed continuously for twenty-four hours, the flexibility of the method provides for its rapid modification so that the drug may be administered either interruptedly or continuously, as desired, without injury to the skin Following our method of therapy, secondary flushes have occurred spontaneously in about half of the patients, thus providing evidence that histamine may be released from the skin depots hours after the iontophoretic treatment It is the purpose of this preliminary communication to make available for study and use in therapy the procedure and clinical results thus far achieved

Method

In general, the previous technic, described by the writer for the iontophoresis of epinephrine in asthma, was employed, with certain modifications required for histamine [12 13] Only one lead of the equipment was used, although it is possible to treat three separate areas of the skin, either in

This research was supported in part by grants from the Josiah Macy Jr Foundation and the Foundation for Research in Pulmonary Disease.

The author is indebted to Mrs. Erna Teige for obtaining much of the data and assisting in the development of the technic.

* Apparently Ebbecke was the first to introduce histamine into the human skin by iontophoresis (personal communication of Dr P Rous)

succession or simultaneously Canton flannel, 3 inches wide and 12 inches long, was folded twice over lengthwise, so that the final area was approximately 12 square inches This was applied to the anterior aspect of the forearm with the required concentration (up to 1 per cent) of histamine acid phosphate solution, and contact was made with an electrode of aluminum foil which was held by a rubber pad and strap against a flat, copper positive plate * Current up to 8 ma with this area has been employed, although not more than 5 ma have been recommended for home therapy The current density, therefore, has generally not exceeded 2/3 ma per square inch This current density may be exceeded, but it is believed that no change should be made until further investigations have been made on the patient's general reactions and the blood pressure

The blood pressure, pulse rate, oscillometric index, and temperature were followed, as well as the subjective response of the patient The patient is told to expect a flush and possibly throbbing of the blood vessels in the head This relieves most of the anxiety connected with the first experience of the flush In general, the length of each treatment is fifteen minutes with the concentration of the solution increased in three steps from 1/4 to 1 per cent with the current increased from 2 to 8 ma, depending on the reaction of the patient Oscillometric readings were obtained in the upper part of the forearm Certain patients complained of abdominal discomfort which was probably due to the liberation of gastric hydrochloric acid An antacid mixture of glycine, three parts, and calcium carbonate, seven parts, was routinely administered in the form of tablets, two before and two after therapy ** Further details of the investigative and therapeutic plan will be presented in the brief descriptions of cases studied during the past year

Case Reports

Case 1.—W B was an adult male, thirty years old, who had had multiple sclerosis for eight years There had been a variety of symptoms which need not be discussed here This patient was first treated by wetting canton flannel with 12 cc of distilled water and then crushing and spreading 10 tablets of histamine acid phosphate, each containing 1 mg of histamine, on the side of the canton flannel to be in contact with the skin In this way a high concentration of histamine was placed adjacent to the skin without using much histamine The canton flannel may be used again after rinsing in tap water and wringing in a dry towel to remove excess liquid With approximately 5 ma for fifteen minutes the primary flush appeared on the face in eight minutes with a wheal lasting several hours It is of interest that with this technic, employing a comparatively small quantity of the drug, the flush appeared for ten consecutive days (the weekend interrupting therapy) after eight to ten minutes of therapy Note in Table 1 the oscillometric readings obtained from June 3 to June 16, using ten tablets as the source of histamine There was little, if any, change in the oscillometric index As a matter of fact, it appears that with this dosage of histamine there was a slight decrease in the oscillometric index with a shift of the index pressure curve to a different position There was usually a slight decrease in the diastolic pressure After ten days of this type of therapy the primary flush took somewhat longer to appear Whether the variation in the reaction of the patient was due to the difficulty of getting a uniform distribution of the histamine on the surface of the canton flannel, or whether it was due to an increased tolerance of the skin toward histamine cannot be stated at this time However, in order to avoid irregularities in the distribution of the histamine on the canton flannel a 1 per cent solution of the drug was made up and with suitable dilution was employed in therapy

The technic was now changed, and 10 cc of 1/4 to 1 per cent solution of histamine was used to wet the canton flannel directly When the canton flannel was saturated with 10 cc of 1 per cent solution, the flush usually occurred at the end of four to five minutes with warmth occasionally felt in both legs Oscillometric data obtained on the forearm from July 19 to July 22 are indicated in Table 2 A slight drop in the diastolic pressure occurred with little, if any, change in the oscillometric index On occasion, the index was apparently increased slightly This was also observed occasionally with individuals weighing less than this particular patient, but no consistent increase in oscillometric index was found

During the period of therapy this patient was able to resume dancing and stated that he could snap his fingers, which he had been unable to do previously He worked full time and was on his feet a good deal in his occupation When therapy was discontinued during his vacation, there was a slight numbness in the little finger which was apparently not improved when he resumed therapy At the end of a week's vacation with no therapy, his fatigue increased, and he was not able to dance as well It is of interest that a wheal formed spontaneously on the forearm at the site treated with histamine on exposure to the sun during his vacation, about four days after the last treatment This is further evidence that histamine depots remain within the skin and can be activated not only by electrical forces but by other physical modalities, e g, light

This patient also experienced secondary flushes hours after the administration of histamine, usually occurring in the afternoon five or six hours after the depot was established It is not known how long the primary flushes lasted It is believed that on this patient the primary flush lasted less than an hour

Thus far, the patient has received 55 iontophoretic treatments on the anterior aspects of the forearm without any observable injury to the forearm. It is believed that too little histamine has been given to this patient and that, if therapy is continued, higher

* Ergamine kindly supplied by Burroughs Wellcome & Co Inc

** Titralac kindly supplied by Schenley Laboratories Inc.

TABLE 1.—OSCILLOMETRIC INDEX AND BLOOD PRESSURE USING HISTAMINE PELLETS FOR IONTOPHORESIS

Oscillometric Index	June 3		June 4		June 7		June 8		June 9		June 10		June 11		June 14		June 15		June 16	
Systolic Blood Pressure (Mm Hg)	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After	Before	After
150	0 0	1 0	1 0	0 1	0 8	0 1	0 2	0 1	1 3	3 1	1 4	0 6	0 5	0 1	1 0	0 0	0 0	1 5	1 8	0 7
140	2 0	2 8	2 0	0 2	1 3	0 2	1 4	0 8	4 3	0 7	3 7	0 5	1 5	1 0	2 0	0 3	1 6	1 5	4 1	1 0
130	5 4	3 6	3 7	1 8	3 7	1 8	4 0	2 3	6 5	2 0	6 0	3 0	7 5	3 0	4 6	3 4	4 0	3 3	10 0	3 4
120	7 6	8 7	8 0	3 4	7 5	3 8	8 6	4 7	9 0	4 2	9 0	5 0	11 5	5 0	6 4	6 4	9 5	5 3	11 0	7 0
110	11 4	12 4	10 0	6 5	11 0	6 0	10 2	8 7	11 8	8 0	13 0	7 0	14 0	9 5	10 6	7 8	10 6	7 0	14 0	9 0
100	13 6	13 6	11 8	10 8	12 4	8 4	12 0	10 2	14 0	12 0	15 0	12 0	16 0	12 0	13 0	11 0	13 0	7 0	18 0	13 0
90	11 0	14 0	8 5	11 8	8 9	8 8	9 2	11 8	9 0	15 0	15 0	14 0	8 0	10 3	12 0	11 0	8 0	8 0	9 0	14 0
80	9 0	9 0	8 5	5 5	3 0	3 0	2 3	5 4	4 0	8 0	6 5	10 0	5 0	5 0	2 0	4 0	2 0	3 5	3 4	8 0
70	3 0	3 0	1 8	3 0	1 0	2 7	1 4	2 4	1 4	3 3	4 0	4 0	2 0	2 0	2 0	2 4	1 6	2 5	2 0	2 5
60	3 0	2 0	0 4	2 0	0 0	1 7	1 4	2 4	1 3	1 0	1 3	2 4	1 0	1 0	0 7	1 0	1 0	0 8	1 0	1 5
	120/88	115/80	118/88	118/80	120/92	115/84	120/84	120/82	120/88	118/80	120/84	115/80	118/90	118/82	124/90	120/80	120/88	115/80	124/90	118/80

dosage with greater frequency of treatments would be desirable Most striking in this patient, as well as in others, was that immediately after therapy the gait was definitely improved, even though the patient has been sitting in a cramped position for fifteen to twenty minutes and the blood pressure had dropped considerably On the other hand, as mentioned previously, the numbness in the fingers did not decrease during therapy

Case 2.—Y S, thirty-two years of age, married, had had multiple sclerosis for five and a half years Her gait had deteriorated progressively so that it has been difficult for her to get about for the past four years On her first visit, 1/4 per cent histamine solution was given for fifteen minutes with a current of 3 1/2 ma. The first flush was observed at ten minutes The oscillometric index, if anything, showed a slight drop, with the blood pressure dropping from 118/88 to 100/80 The next morning the patient reported that she was worse Therapy was continued, however, and the dose increased to 1 per cent histamine The blood pressure invariably dropped after this therapy, usually starting at 115/80 and dropping to approximately 90/60 The primary flush began at six minutes It is of interest that this patient was much better after treatment with the 1 per cent solution and was almost able to walk alone, in spite of the fact that the blood pressure dropped considerably As the dosage and current was increased, the primary flush began at five minutes with an accompanying throbbing at the back of the head and secondary flushes occurring at home several hours after therapy at the office Headaches occurred which might be connected with the release of histamine from the skin Therapy will be continued at home

Case 3.—F B, aged fifty-one, was an advanced case of multiple sclerosis confined to a wheelchair His symptoms were worse in hot weather During the summer of 1948, he was treated with 1 per cent histamine solution. This is mentioned specifically because the usual primary flush was not observed, although the patient reported that he had felt better since beginning therapy His vision especially improved This patient also reported secondary flushes within twenty-four hours after the histamine depot had been established in the skin. This patient, as well as others, have reported that therapy improved their ability to focus on an object There is a striking increase in muscular strength Therapy is being continued at home

Case 4.—J S was a thirty-six-year-old married woman with two children She had had multiple sclerosis for approximately four years Two years before she improved slightly following a course of intravenous histamine She had much difficulty in walking when she was first seen by the writer and was unable to use the subway or go shopping Treatment was begun on July 12, 1948, with 1/4 per cent histamine solution, the current being 2 ma for fourteen minutes With this dosage the primary flush appeared at about seven minutes The relationship of the blood pressure to the dose of histamine and the onset of the flush is given in Table 3 Note that with increased dosage the flush begins earlier and the drop in blood pressure is, in general,

TABLE 2.—OSCILLOMETRIC INDEX (FOREARM) AND BLOOD PRESSURE AFTER HISTAMINE IONTOPHORESIS (1 PER CENT HISTAMINE)

Oscillometric Index Systolic Pressure	July 19		July 20		July 21		July 22	
	Before	After	Before	After	Before	After	Before	After
150	3	3	1	1	1	2	3	3
140	4	4	2	2	3	4	4	4
130	5	7	3	4	5	5	5	5
120	8	9	6	4	7	6	6	7
110	9	11	8	8	11	8	6	10
100	11	10	9	8	13	8	9	11
90	9	8	9	9	10	9	9	12
80	7	5	5	8	6	9	6	7
70	3	3	3	6	4	8	3	3
60	3	2	2	3	3	5	2	3
Blood Pressure (Mm. Hg)	112/90	115/80	115/88	110/74	100/84	100/78	110/84	110/80

more noticeable The oscillometric index was essentially unchanged The plan of initiating therapy prior to permitting home therapy is well brought out in Table 3, which should be consulted for details It is of importance that this patient took approximately 100 mg of niacin daily during the time of and simultaneously with her histamine therapy and that she was able to take two treatments per day without immediate untoward effects Shortly after beginning therapy, the patient seemed much better and was not as much fatigued on walking about She was able to use the subway and to go shopping alone She stated, "My legs don't jerk as much from the joints" Her vision was much improved, and she has been placed on home therapy

It might be argued that the improvement in this case may be due to factors other than those connected with the administration of histamine For example, niacin was taken simultaneously

TABLE 3.—BLOOD PRESSURE DOSAGE PLAN AND FLUSHES (CASE 3)*

Date	Blood Pressure (Mm. Hg) Before	After	Dose (Histamine as the Acid Phosphate)	Primary Flush (Approximate Number of Minutes After Therapy Began)
7/12	118/84	115/84	0 25% 3 ma. 15 minutes	7
7/13	120/84	115/70	0 5% 2 ma. 15 minutes	7
7/14	118/88	118/72	0 5% 3 ma. 15 minutes	6
7/15	115/88	102/70	0 5% 3 ma 15 minutes	7
7/16	115/84	112/60	10 pellets 3 5 ma 20 minutes	10
7/17	118/82	115/68	0 5% 4 ma 15 minutes	10
7/19 A M	115/78	112/70	1% 3 5 ma 15 minutes	5
7/19 P M	115/78	115/60	1% 4 5 ma. 15 minutes	5
7/20 A.M	112/70	100/56	1% 4 5 ma. 15 minutes	6
7/20 P M	110/78	110/60	1% 3 5 ma 15 minutes	6

* Patient received her own equipment on July 21

It was quite possible that this striking improvement was due to a synergism between histamine and niacin Dr R M Brickner, who referred this patient for therapy, informed the writer that in his opinion, it was not a spontaneous remission but was due to the pharmacologic action of the histamine Further data, of course, must be obtained, and the future history of the patient under this type of therapy must determine whether or not the therapeutic technic is responsible for the clinical results

Seven other cases are under study at this time All of these patients showed some type of significant improvement, not only connected with a general feeling of well-being during the course of therapy, which might be psychologic, but also in vision and in muscular coordination which is most likely connected with the pharmacologic action of the drug

Discussion

The reaction of the patient becomes more favorable as the dose of histamine is increased The present technic initiates therapy with a solution containing 1/4 per cent of histamine acid phosphate, with a current of 2 ma for ten minutes This is increased slowly to what appears to be, for the present, an optimal therapeutic level of 5 ma for fifteen minutes with a 1 per cent solution The relationship of increasing dosage to the more favorable therapeutic results leads the writer to believe that the therapeutic result is due to vasodilatation rather than to psychotherapy No more than two treatments per day with maximum dosage have been given Further investigations will probably lead to a technic of safely increasing the number of treatments per day The drop in blood pressure however, will probably be the limiting factor to the dose administered in a single treatment Our present policy is to give the patient at least ten office treatments before a galvanic machine is to be purchased by the patient who, with his family, learns the technic of iontophoresis for self-administration

The following memorandum is given to the patient beginning home therapy

DIRECTIONS TO PATIENTS FOR THE SELF ADMINISTRATION OF HISTAMINE IN THE THERAPY OF MULTIPLE SCLEROSIS

1 Attach the electrodes to the iontophoresis machine making certain that the red plug matches the red socket. This is the positive pole The negative pole is the inert reference electrode and can be placed anywhere on the body or as demonstrated to you in the doctor's office The positive pole may be placed on the anterior aspect of the forearm If you decide to use another location of your body, please come to the office so that your reaction to that site may be tested, since absorption varies in different parts of the body The rate of the absorption from the site must be predictable. For example if the histamine is administered in the thigh the absorption of the histamine will be accelerated.

2 Obtain a piece of canton flannel 12 inches long and 3 inches wide, and fold over as directed Have a sheet of aluminum foil ready for the positive pole of the galvanic machine.

3 Dissolve one gram of histamine acid phosphate (Ergamine Phosphate—Burroughs Wellcome) in 100 cc of distilled water If distilled water is not available tap water may be used temporarily Measure out 10 cc or approximately 2½ teaspoonfuls of this solution using a plastic measuring spoon, and spread uniformly on the dry canton flannel Keep the remaining solution in the refrigerator

4. Place the canton flannel wet with the solution on the anterior aspect of the forearm place the negative reference electrode on the designated place making certain that there are no cuts or pimples under the electrode area. If metal touches the skin or if there are cuts, bruises or pimples there will be a concentration of electricity in that area and an intense burn will be felt All jewelry should therefore, be removed. Otherwise, the reaction as you know is simply itching with slight irritation

5 After the electrodes are firmly in place make certain that the rheostat is down to zero and turn the current on Slowly increase the current. If burning occurs make certain that the electrodes are uniformly in contact with the skin and that there are no breaks in the skin Increase the current slowly to 5 milliamperes. This should not be exceeded before discussion with the doctor

6 Maintain this current for fifteen minutes or as otherwise directed.

7 If fainting occurs, an injection of ½ cc of epinephrine 1 1000 will instantly relieve the symptoms due to the histamine.

8 Keep the following record of each treatment
Name
Time beginning of treatment
Time, completion of treatment
Total time
Flush appeared after _____minutes
Current of_____milliamperes
General reaction after therapy (include occurrence of secondary flushes)

It is believed that prolonged iontophoretic therapy with histamine, combined with vasodilators by mouth (e g , niacin), provides a greatly simplified form of therapy with excellent therapeutic possibilities at the present time It may also prove effective in other degenerative diseases of the central nervous system.

Summary and Conclusions

Successful reports by Horton and his coworkers in the therapy of multiple sclerosis by the intravenous administration of histamine has led to a program of iontophoretic therapy with strong histamine solutions It had been shown previously that if histamine is introduced into the human skin by iontophoresis, histamine depots are formed Eleven patients with multiple sclerosis have been treated by iontophoresis of histamine with sufficiently concentrated solutions and sufficient current density to produce both primary flushes during therapy and, in some instances, secondary flushes some hours later The data indicate that histamine in the dose and form administered does not produce important changes in the oscillometric index in the arm but does produce a drop in the blood pressure, especially the diastolic pressure In general, therapy increases muscular coordination, muscular strength, and improvement of vision The advantages of the therapy proposed are (1) the veins need not be punctured over prolonged periods of time, (2) sterile equipment need not be employed, (3) it is readily administered at home, (4) it is inexpensive, (5) hospitalization is not necessary, and (6) it can probably replace intravenous therapy

On the basis of the data presented thus far, it is believed that prolonged iontophoretic therapy with histamine, possibly combined with vasodilators by mouth, provides a greatly simplified form of therapy with good therapeutic possibilities

For the past year 18 patients have been on home therapy following the procedure outlined above Four of these patients are wheelchair cases The period of home therapy has ranged from one to nine months In this series there have been no relapses One patient was treated with benefit at the beginning of a severe acute remission. The technic is now being applied in one case of Parkinson's disease

Jones in a paper presented at the fifth annual meeting of the American College of Allergists April 15 1949 reported that he has treated 60 cases of multiple sclerosis by histamine iontophoresis using the technic described in this paper Jones agrees with the advantages of the electrophoretic method as outlined here and finds that with histamine iontophoretic therapy there is a temporary increase in muscular coordination and strength which lasts longer with iontophoresis than with the intravenous method Twenty-five of his patients are being treated at home with 35 in the hospital as outpatients There were two of 62 who felt better under intravenous therapy

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FRIEDLANDER BACILLUS PNEUMONIA TREATED WITH STREPTOMYCIN

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PNEUMONIA due to Klebsiella pneumoniae (Friedländer's bacillus) is a relatively rare condition According to Solomon, it comprises from 1 to 3 per cent of all pneumonias and occurs almost exclusively in the later decades of life [1] There is a considerable preponderance of males over females, and it almost never occurs in children In a series of 2,000 cases of pneumonia, Cecil, Baldwin, and Larsen found an 0 4 per cent incidence of pure infections with K pneumoniae [2]

Bacteremia is found in 70 per cent of cases according to Bullowa [3 4] Pure cultures of the Friedländer's bacillus are obtained from the sputum, from the lung juice, and frequently from the blood

Prior to the work of Heilman, the mortality rates in several series of cases varied between 80 and 100 per cent [1 3 4 5] The results of this study suggested that streptomycin might be useful in the treatment of infections caused by micro-organisms of the Friedländer group Since that time several cases of complete recovery in Friedländer pneumonia with the use of streptomycin have appeared in the literature Geier reported a case in which complete recovery resulted with the use of both streptomycin and sulfadiazine [6] Learner and Minnich's case recovered promptly with the use of streptomycin [7] Bishop and Rasmussen also reported a case of Klebsiella pneumonia treated with streptomycin [8] Final x-rays of the chest in all three cases showed complete resolution

The following case is reported to show a complete and rapid discovery from a Friedländer's pneumonia without any ensuing complications

Case Report

D H , a sixty-three-year-old white man, was admitted to the hospital on September 15, 1947, with a chief complaint of fever of two days duration, sweating, and a thin watery nasal discharge

The patient had been well and active until September 13, 1947, when he returned from work with a temperature of 102 F and profuse sweating but no chills The following day the above symptoms persisted, and, in addition, the patient developed a cough productive of a tenacious mucoid sputum which was not bloody

The past history was not remarkable except that the patient was adequately treated for syphilis in 1943 with arsenic and bismuth

Physical examination revealed a well-developed, well-nourished white male lying quietly in bed and sweating profusely Although he was lethargic, the patient responded quickly and accurately to questioning He was moderately dyspneic, but no cyanosis was noted The temperature was 104 6 F , pulse was of good quality with a regular rate of 110, respirations 26 per minute Blood pressure was 140/90 Eye, ear, nose, and throat examination revealed no significant abnormalities except for a thin watery discharge coming from the nose The pharynx was red and injected, but no exudate or ulceration was noted The tongue was dry and coated white There was no palpable lymphadenopathy The trachea was in midline The thorax was symmetric, and no splinting was noted Examination of the lungs revealed normal breath sounds throughout both lung fields Examination of the heart revealed no enlargement either to the right or left The sounds were regular, rapid, and of good quality No murmurs were audible The abdomen showed no palpable masses or enlargement. There were no deformities of the extremities Rectal examination revealed a smooth, normal prostate Neurologic examination was entirely negative

Laboratory data was as follows The urine on admission showed no abnormal findings The blood count revealed 4,100,000 red blood cells, 83 per cent hemoglobin, 7,250 white blood cells with 74 per cent polymorphonuclears, 25 per cent lymphocytes, and 1 per cent eosinophils

A diagnosis of acute respiratory disease was entertained at the time of admission

Roentgen examination taken on September 17 (two days after admission) showed no evidence of recent or active parenchymal infiltration or pleural involvement (Fig 1)

In view of the patient's toxicity and temperature, although physical and laboratory evidence did not reveal a pneumonic process at the time of admission, the patient was placed on penicillin, 50,000 units every three hours, on September 17 (two days after admission)

Beginning on September 18 (three days after admission), physical examination of the lungs revealed dullness at the right base with occasional fine crepitant rales at both bases A diagnosis of bronchopneumonia was entertained In addition to the penicillin, which the patient was receiving at this time, sulfadiazine 2 Gm initially and 1 Gm. every four hours with equal amounts of sodium bicarbonate was administered

On September 19 the patient had a severe chill and became cyanosed and dyspneic The pulse was thready The blood pressure was 80 systolic,



FIG 1 Roentgenogram showing no evidence of recent or active parenchymal infiltration or pleural involvement.

60 diastolic, pulse 110 and regular Examination of the chest at this time revealed dullness and fine crepitant rales in both lung fields, most marked at the bases The heart sounds were difficult to hear The patient was placed in an oxygen tent and 1 2 mg of digitoxin was administered A daily maintenance dose of 0 2 mg of digitoxin was given

On September 20, B Friedländer was grown from the sputum cultured on September 17 In addition, the blood culture was also reported as positive for B Friedländer Thus, the penicillin was discontinued, and streptomycin 1 Gm. initially and 0 25 Gm every four hours was given Within twenty-four hours the condition of the patient began to improve.

On September 23 the patient's temperature was normal He appeared clinically improved and was no longer lethargic, cyanosed, or dyspneic X-ray of the chest on this date revealed a diffuse proliferative infiltration throughout the pulmonic fields with the greatest involvement in the lower lobes (Fig 2) These findings were consistent with a diagnosis of bronchopneumonia Streptomycin was discontinued on September 25, and a blood culture taken September 23 was reported negative

The following day the temperature rose to 101 6 F Examination of the lungs revealed dullness and crepitant rales at both bases posteriorly Streptomycin therapy was again begun and continued until October 3, the temperature having been normal for four days All blood cultures after the first positive one were negative Radiographic examination of the chest on October 8 showed a pleural thickening at the left costophrenic angle, but there was no evidence of any parenchymal infiltration (Fig 3) The patient was discharged on October 9, 1947 At no time were any toxic manifestations to the streptomycin noted.

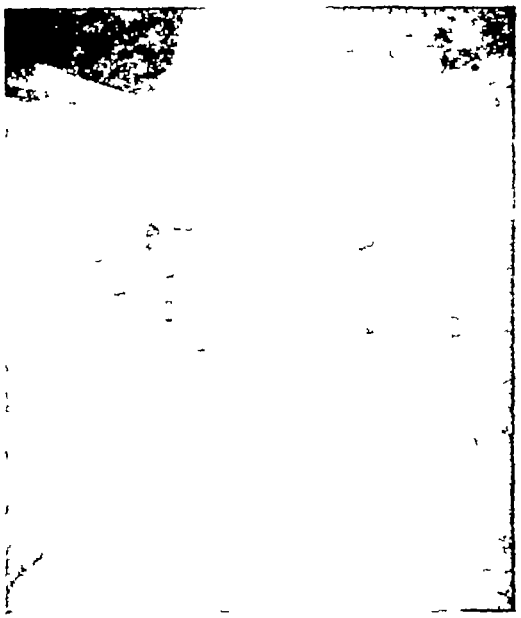


FIG 2 Bilateral proliferative infiltration of the lower lobes with areas of exudation extending upward toward the hilus Periphery of lungs relatively clear, diaphragms of normal height and contour, there is no evidence of pleural involvement

Discussion

Solomon in 1940 reported that acute Friedländer pneumonia terminates fatally within a relatively short time [1] The surviving patients may recover completely or pass into the chronic stage

The entire illness of Klebsiella pneumonia may be divided into two stages first the acute stage, where there ensues, in the majority of cases, an aputrid necrosis of the lung and, quite frequently, pleural effusion, either purulent or serous Second, if the patient survives, there occurs the stage of chronic pulmonary suppuration with one or more thin-walled abscesses, bronchiectasis, or fibrosis, or a combination of the processes which may persist indefinitely with exacerbations and remissions Because of the presence of cavities in the lung and the frequent upper lobe involvement, the chronic form of the disease is very commonly mistaken for tuberculosis

Death may occur at any point in the clinical course, but occasionally, if the lesion is not too extensive, there may be apparently complete resolution.[1] Baehr, Shwartzman and Greenspan noted in a series of 198 infections with Klebsiella pneumoniae only two cases of pneumonia in which clinical and bacteriologic evidence during life left no doubt that the B Friedländer was the primary focus of pulmonary infection They



FIG 3 Pleural thickening at the left costophrenic angle and no evidence of parenchymal infiltration

emphasized that in reporting cases of primary B Friedländer pneumonia it is important to exclude secondary invasions by this organism in cases of primary pneumococcus pneumonia, influenzal pneumonia, chronic bronchiectasis, lung abscesses, and tuberculous cavitations, and metastatic infections of the lung from a primary focus of B Friedländer infection within the abdomen [9] Solomon takes issue with the opinion expressed by Baehr and his coworkers that the Friedländer's bacillus is a secondary invader in pneumonia [10]

Since streptomycin is now available, the need for proper evaluation and bacteriologic study of sputum and blood is increased, in order that a diagnosis of Friedländer pneumonia be made early in the course of the disease By early diagnosis and prompt treatment with streptomycin, the common complications of acute Friedländer's pneumonia as listed by Solomon may be diminished or even prevented It should be emphasized that once tissue destruction has taken place, the results, even with streptomycin, are not favorable

Summary

1 The incidence of Friedländer's pneumonia, the incidence of bacteremia, and mortality rates prior to the advent of streptomycin are discussed

2 Cases of complete recovery from Friedländer's pneumonia with streptomycin found in the literature are cited

3 A case showing complete and rapid recovery from Friedländer bacillus pneumonia by early diagnosis and treatment with streptomycin is reported

4 The need for careful bacteriologic study of patients with acute respiratory disease is stressed so that early treatment with streptomycin may be instituted in cases of Friedländer pneumonia, in order to reduce the incidence of chronic cases resistant to treatment

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U N CHILDREN'S FUND BEGINS ANTISYPHILIS DRIVE

A $2,000,000 campaign to combat syphilis and protect new-born infants from the disease is being undertaken by the United Nations International Children's Emergency Fund, it was announced recently

The fund's program is reported to be the first an tisyphilis program undertaken on an international scale

Allocations already have been made for disease-prevention projects in Bulgaria, Finland, Hungary, Poland, and Yugoslavia With money allocated by the fund's twenty-six nation executive board, antisyphilis campaigns will be carried out in these countries under the joint auspices of the fund and the United Nations World Health Organization

The first program to protect children and expectant mothers will be started in Poland with a $384,000 allocation An initial contribution of $225,750 has been set aside to begin an antisyphilis project in Yugoslavia Similar programs have been planned for Bulgaria, where 1,000 pregnant women and 3,900 children will be aided under a $51,000 grant, and Hungary, where $65,000 has been set aside to treat 5,250 mothers and 200 infants.

The Polish campaign, fund officials explained, will serve as a model for other countries, since plans already are under way to extend the programs to Italy and Czechoslovakia. The fund's executive board has recommended also that conditions be surveyed in Albania, Greece, Rumania, and China

SPA THERAPY IN DISEASES OF THE SKIN

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NATURALLY occurring thermal and hot springs (mineral waters) have been used internally and externally for the treatment of systemic and local diseases since time immemorial In our country, however, the therapeutic potentialities of natural mineral waters and other natural spa media have never been fully appreciated, particularly with regard to cutaneous affections The importance of personal experience with health resort measures as employed in the treatment of dermatologic disorders was stressed in a recent article by Cipollaro [1] He points out that most American dermatologists, including himself, have had little personal experience with health resorts E Wohlstein and the author have found natural sulfur waters and natural sulfur mud very useful in the treatment of a number of dermatoses [2-5] This essay deals with our experience in this respect

In Europe, bathing in natural mineral waters and the employment of other spa media, such as mud, peat, and moors, are well developed and recognized procedures in the treatment of cutaneous diseases Spa care has proved therapeutically effective, especially in chronic and recurrent dermatologic disorders resistant to ordinary dermatologic measures It should, however, be emphasized that many recalcitrant, chronic, and recurrent cutaneous disorders which do not respond to usual dermatologic management, also fail to improve at a spa

Spa Benefits

The curative effects of natural spa media have been variously ascribed to spirits residing in the springs, to the chemical properties of dissolved minerals, to radioactivity, to thermal action, to the sweating process, and to psychic factors It is argued again and again that the curative value of natural mineral waters is in no way superior to that of artificially medicated or even ordinary water To date, however, all attempts with artificially medicated waters have failed to duplicate the benefits derived from the use of natural spa products The failure is not fully explained by the absence of trace elements in the artificially medicated substances [6]

Psychic influences undoubtedly play an important role in bringing about improvement in a patient's psyche and soma, but they are part and parcel of the many benefits which a stay at a spa offers life for a shorter or longer period of time under conditions wholly different from those at home, retreat from worries, anxiety, and the fast tempo of every day living, beauty of the scenery of the spa which is often situated in a picturesque valley, favorable climate, freedom from environmental pollens and dust, rest and relaxation, individually adjusted diets, outdoor exercises and sports in prescribed amounts, interesting excursions, entertainment, sitting in the "cure park" or on the "cure terrace" and listening to the "cure music" or to fellow sufferers who report improvement in their condition or in that of others, drinking mineral waters—all tend to enhance the dominating purpose of every spa, namely, getting well The will and determination on the part of everyone connected with the spa management, physicians, personnel and inhabitants, in every way to help the patient regain his health is of inestimable value The natural advantages of the spa, the spa regimen, and the spa measures together bring about notable improvement in the general health—the physical, mental and emotional states of the patient These factors substantially aid the recovery of cutaneous diseases of patients with psychoneurotic backgrounds, as of idiopathic generalized pruritus, prurigo, lichen planus, and urticaria chronica

Classification of Spa Waters

Spa waters exert a stimulating or a soothing influence upon the body Sulfur spa waters exert a stimulating action. In general, however, spa waters are classified on a chemical basis, according to the predominance of one or the other cation or anion In sulfur or sulfuretted waters, the sulfides, thiosulfates and sulfates of sodium, calcium, and magnesium predominate Sulfuretted waters are charged with hydrogen sulfide gas Other spa waters are sulfate or earthy waters, alkaline and alkaline-saline waters, and waters which contain iron, arsenic or iodine

Percutaneous Absorption.—Generally speaking, electrolytes in an aqueous solution do not penetrate the intact skin of mammals The skin is impermeable to salts containing physiologic (sodium calcium) or nonphysiologic cations (lithium, rubidium, strontium) [7] Some anions, however, seem to penetrate the skin. Iodine has been recovered from the urine after iodide solutions were applied to the skin Lipoid soluble substances, such as hydrogen sulfide, penetrate unbroken skin A certain degree of solubility of substances in water together with high lipoid

solubility represent the optimum for transepidermal absorption [7] The absorption barrier is in the transitory layers between the cornified and noncornified epithelium Breaks in the epidermal barrier such as are caused by cutaneous lesions permit the absorption of substances which otherwise would not penetrate the skin

Sweating Process.—Through spa measures, heat is imparted to the body by conduction while loss of heat is prevented This results in a rise in the body temperature and a speeding up of general metabolism To bring about heat loss, copious sweating is induced with subsequent evaporation of the water from uncovered areas of body surface High moisture content of the environment impedes evaporation of the sweat and thus helps to check heat loss

Patients as well as many physicians have always attached therapeutic value to profuse sweating It is asserted that "poisons," notably "acid" substances, especially lactic acid, are eliminated in increased amounts in the sweat In this connection, the alleged value of sweating in nephritis may be recalled

Along with increased sweating, water vapor and carbon dioxide escape through the overventilated lungs The ingestion of large quantities of mineral water promotes elimination through the urine and the bowels

Internal Administration.—The sulfur spa water may also be administered by mouth Sulfur mineral water often exerts a mild laxative effect The physiologic action of the mineral water of the springs ingested at the source is partly due to the water as such and partly to the ionic dissociation of the molecules of the mineral compounds present in the water (ionic therapy)

Bathing, in conjunction with drinking spa water, hastens the elimination of drugs used for internal and external dermatologic treatment Sulfur spas have long been known to be effective in ridding the body of drugs such as mercury, bismuth, arsenic, and gold In former times, patients afflicted with syphilis were often referred to sulfur water spas to carry out mercury rubs Patients with rheumatoid arthritis seem to tolerate injections of gold salts much better when undergoing simultaneously treatment at spas with sulfur water

The author administered sulfur spring water also by intravenous and intramuscular injection for nonspecific desensitization

Mineral Muds

Mineral muds are well suited for packs as they usually are of a buttery consistency and have a high degree of plasticity, low specific heat, poor heat conductivity, and high specific gravity Part of the therapeutic action of most muds can be attributed to their content of microsco of quartz, diatoms, coccoliths, needles, and t like, which produce hyperemia of the skin b mechanical stimulation Among the chemic substances contained in muds, the sulfur co pounds deserve special mention The presen of lipoid soluble sulfur compounds, such hydrogen sulfide, is important, for these co pounds are able to pass through the unbroke skin The sulfur acts both as a nonspecif stimulant and as a chemical for indicated sulfu therapy

Technic.—Mud is applied in the form o baths or packs The temperature of the mu baths ranges from 100 to 106 F or higher Mu as well as peat can be given at higher tempera tures than water because the point of therma indifference for these products is higher Becaus full as well as three-quarter mud baths are apt to cause exhaustion, the application of mud in the form of general or partial packs is the method of choice in the treatment of diseases of the skin. This involves the following procedure the whole or parts of the body are covered with four-inch thick layers of hot mud, then wrapped in oil cloth, white sheeting and woolen blankets Mud packs are usually followed by a bath in the sulfur spa water after which a dry pack is applied, i e, the patient is wrapped in a hot sheet and a woolen blanket Massage, consisting of rubbing and kneading, of the whole body is the next step This is followed by topical medication The skin surface being cleared of scales, fatty material, and debris, and the glandular and follicular pores being freed of greasy scales permits closer contact of topical medications with the diseased skin, whereby transepidermal absorption of lipoid soluble substances through the appendages is promoted

Rest in bed for at least two hours concludes the treatment This procedure is repeated three to five times a week.

The temperature of the mud used for packs is 110 to 126 F, that of the sulfur water ranges between 100 to 104 F The separate stages of treatment (full or partial mud bath, or general or partial mud pack, thermal bath, and dry pack) last on the average from fifteen to twenty-five minutes, depending mainly upon the temperature of the spa media The factors which determine the temperature and the duration of the spa procedures are the nature of the cutaneous disorder, the extent of skin area to be treated, the general health, appearance, and age of the patient, and the condition of the heart and blood vessels

Mud Pool Baths.—The mud pool is a large pool, the bottom of which is covered with hot mud (knee deep) into which hot sulfur springs discharge The water in the pool is shoulder high

designed for the  *young*

cillin 100-Sulfas' (penicillin and the sulfonamides) has been found
atically effective in treating many of the common bacterial infections
ildhood It is particularly indicated in the following

Pneumonia
Acute Sinusitis
Upper Respiratory (and related) Infections

purulent rhinitis	bronchitis
nasal pharyngitis	tonsillitis
streptococcal sore throat	otitis media

Bacillary Dysentery
Urinary Tract Infections

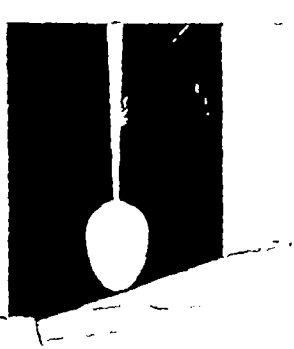
cillin 100-Sulfas' is so pleasant tasting and easy to swallow
children enjoy taking whatever amount you prescribe
teaspoonful (5 cc) supplies crystalline potassium penicillin G
000 Units), sulfadiazine (0 167 Gm), sulfamerazine (0 167 Gm),
methazine (0 167 Gm) Available in 2 fl oz bottles

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original and outstanding FLUID
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Mud Pool Baths—The mud pool is a large pool, the bottom of which is covered with hot mud (knee deep) into which hot sulfur springs discharge The water in the pool is shoulder high

The temperature of the mud pool bath is about to 106 F When the patients move about r stir up the mud causing it to mix with the er to form a suspension The duration of e baths ranges from twelve to fifteen minutes ess The other steps involved in this pro- ire include dry pack, massage, local applica- of the drug to be used, and bed rest

ictions

he body responds to the application of hot products to the skin with local, focal, and emic reactions The local reactions are char- erized by vasodilatation and increased flow of od at the site of application, evidenced by in- e local erythema The flow of lymph and pedesis of leukocytes are heightened These cesses increase tissue metabolism and quicken ie respiration, and supply oxygen and nutri- t in amounts necessary for meeting the needs he tissues The physiologic effects produced he action of spa products applied to the skin note resorption of the products generated by pathologic process involving the skin, en- ce resolution, and stimulate tissue repair requently, within twenty-four hours after spa atment, the cutaneous lesion exhibits a de- ed reaction which is manifested by an intensi- ation of the symptoms and signs This is own as focal reaction.

The heat applied to the cutaneous surface is ned inward with consequent rise in body tem- rature, and enhancement of general circulation d metabolism It is claimed that thermal, emical, and mechanical stimuli as embodied in a measures effect the release of histamine or stamine-like substances with consequent vaso- latation and cutaneous erythema [8] Part of the influence of the substances seems to be exerted brough the autonomic nervous system and the ndocrine glands The influence of spa measures n the endocrine glands through the mediation of he skin and the autonomic nervous system be- omes apparent in the systemic reaction ("cure eaction," "cure crisis") The systemic reaction xhibits symptoms and signs similar to those of rotein shock therapy

Undesirable Effects

Not to be confused with systemic reaction is he "cure exhaustion" (thermal debility) Lassi- ude and general malaise are caused by too fre- uent and too prolonged bathing in spa media hat are too hot

Mention should also be made of the dermatitis which occasionally develops as a result of contact with sulfur spa water and sulfur mud The skin becomes dry, red, and desquamates, vesicles may also form. The cutaneous manifestations quickly regress when bathing is omitted, they may recur in patients with very sensitive skins The type of contact dermatitis due to spa media varies with the spa

Profuse sweating may cause miliaria

Types of Dermatoses Benefited by Spa Therapy

The various members of the eczema group are often favorably influenced by spa treatment Marked benefit may be obtained by patients afflicted with widespread or localized types of neurodermatitis, and by patients with contact dermatitis (dermatitis venenata) The eczema- toid condition secondary to intense pruritus and scratching in the anal and pudendal regions characterized by redness, infiltration, thickening, induration, and weeping frequently responds to spa measures, especially in combination with colonic irrigations and vaginal douches with natural sulfur water However, one should al- ways search for underlying etiologic factors Acute or subacute eczematous eruptions do not benefit from spa therapy

The cutaneous manifestations complicating varicose ulcers and the ulcers themselves, par- ticularly the sclerotic and torpid ones, are often successfully managed by bathing in the hot sulfur springs and by the use of mud, massage, and rest In obstinate decubital and x-ray ulcers, epithe- lialization is greatly enhanced by mud packs Lymphedema with hypertrophy of the skin and subcutaneous tissues affecting the extremities are satisfactorily improved by mud packs, thermal baths, massage, and rest

Recent chilblains and congelations, even of mild severity, fail to respond to spa treatment, but old and severe cases of dermatitis congelationis are definitely improved Such treatments have been carried out successfully in desperate cases where dermatologic measures have failed

Raynaud's disease and erythromelalgia are also amenable to spa measures In a case of Von Recklinghausen's disease (neurofibromatosis) with painful tumors, the sensation of pain vanished with spa therapy and the tumors be- came soft Patients with neuralgic sequelae after herpes zoster as well as patients with cutaneous manifestations produced by injuries to peripheral nerves causing burning pain (causalgia) are fre- quently referred for the application of mud packs

In many cases of psoriasis, spa measures are employed to advantage Generalized and even universal eruptions may clear up after treatments with mud On the other hand, cases with a few erythematous and scaly patches may prove to be unresponsive to spa therapy About 1 per cent of patients suffering with psoriasis also have

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EUGENE NEUWIRTH

THE CLINICAL IMPORT OF BLOOD CHOLINESTERASE DETERMINATIONS IN CHOLINERGIC EPISODES AND STATES IN THE HUMAN

CYRIL SOLOMON, M D , ROBERT D BARNARD, M D , and HARRY G GOLAN, M D ,
Hollis, New York

(From the Terrace Heights Hospital)

THE discovery of adrenalin was followed by the exhaustive work of Cannon which purported to show that this hormone was the chemical mediator of the thoracolumbar autonomic nervous system.[1] The theory was utilized by experimental physiologist and clinician alike and had a large part in the therapeutic development of adrenalin and other sympathomimetic amines Less spectacular but of equal importance was the hypothesis of Dale that the parasympathetic autonomics and the somatic nervous system were mediated by the liberation of a muscarine-like substance at synaptic and myoneural junctions [2] This hypothesis was vindicated when Loewi demonstrated that stimulation of the vagus was followed by the appearance of acetylcholine (ACh) within the heart muscle [3] The classic "vagal" heart slowing was apparently due to liberation of ACh. The latter could be demonstrated if the blood of the animal whose vagus was stimulated was passed through another animal by cross circulation. The heart of the second animal would slow on stimulation of the vagus of the first This particular nerve action, therefore, had a "humoral" or "hormonal" basis Similar circumstances were soon shown to exist at all synaptic and myoneural junctions

Since nerve action is rapid and evanescent, whereas humoral activity is usually sustained, an explanation of the unprotracted response on vagus stimulation had to be forthcoming Loewi found within the heart muscle an enzyme capable of inactivating ACh The same or a similar enzyme was also found in practically all tissues, and it was decided that the presence of this enzyme was a necessity, otherwise stimulation of a nerve, releasing ACh, would cause an effector response sustained long after its period of physiologic utility It might even result in acetylcholine poisoning, since the latter substance is diffusible and could obviously be carried by the blood stream (as in the above experiment) away from its site of formation

Naturally enough, the highest concentration of this enzyme (which hydrolyzed the ester linkage in ACh and was, therefore, termed "cholinesterase" and represented by the symbol, ChE) was found in nerve tissue, but it was also found to be present in appreciable and constant concentration in such a typically non-nervous tissue as the blood A great many of the investigations were restricted to serum ChE concentration determinations alone, whereas the bulk of the blood ChE in the human is erythrocytic [4] For that reason, significant variations in the concentration of the whole blood enzyme (which represents the true potential of this fluid as a systemic ACh neutralizer) were overlooked Because the serum and erythrocyte ChE ratios frequently alter without absolute total variation, wide fluctuations in the serum ChE concentrations did not permit conclusion as to their significance Milhorat was able to show a parallelism between serum ChE depression and clinical severity of certain conditions, Antopol and his coworkers found an increase in hyperthyroidism and a decrease in anemias and debilitated states, and ChE determinations in serum were considered to be of diagnostic value in barbiturate addiction, jaundice, and hepatic cirrhosis [5–8] Serum ChE lowering was also found in eclampsia, and here again diagnostic and prognostic significance has been stressed [9–11] Low serum ChE values were encountered in nephropathies and hepatopathies On the latter basis, a hepatic origin of serum ChE has been assumed

Serum ChE variations in health and disease have also been reported by other investigators, among which Faber and Cruxatto and Hurdobro, while admitting marked variation from the average in various diseases, discount any diagnostic significance to the figures [12–16]

Reports on whole blood cholinesterase figures lead to other conclusions Figures for whole blood ChE, while still sparse, are nevertheless sufficient to indicate a remarkable constancy for any individual during health, a fair constancy between healthy individuals, and definite patterns of departure from the average in disease The pioneer work of Sabine in which the partition of whole blood ChE between serum and erythrocytes was measured—a classic apparently overlooked until attention was again focused on it by the more recent work of Davis and that of the author's group—showed that blood ChE values were somewhat elevated in the hypochromic or "secondary" anemias, whereas in pernicious anemia they were lowered, rising during remission [17–20] Sabine concluded that the elaboration of blood ChE was a bone marrow function Measurement of both serum and erythrocytic ChE fractions by Weber confirmed the reported

arthritis (arthropathic psoriasis) The arthritis is usually of the rheumatoid type and effects most severely the terminal interphalangeal joints, especially those of the toes Exacerbations and remissions of the skin lesions run parallel with the articular symptoms and signs To secure best therapeutic results, in addition to spa measures, other physical agents such as natural sunshine or quartz light as well as internal drugs and topical applications are employed

Patients with exfoliative dermatitis may experience slight to moderate relief from itching and chilliness and may notice objective improvement through spa measures In a case that followed psoriasis and where the eruption was universal, mud treatments brought about a remarkable improvement after six weeks Following the employment of mud, sulfur petrolatum (10 per cent) was applied to the skin Wohlstein successfully treated by means of mud packs a case of pityriasis rubra (Hebra) that was previously managed by Unna with ink baths and adrenalin ointments

Two cases of pityriasis rubra pilaris were unaffected by spa treatments Cases of chronic lichen planus with generalized or localized eruptions usually derive benefit from spa therapy In a case of pityriasis lichenoides chronica (Parapsoriasis guttata) the therapeutic result was excellent In ichthyosis, spa care softens the skin and diminishes scaling

The use of hot mud packs for the deep-seated nodes of acne indurata and also for the lesions of acne conglobata may accomplish good results In cases of chronic furunculosis, favorable and unfavorable results are obtained with spa measures Packs with hot sulfur mud help to accelerate the involution of the nodular manifestations of sycosis vulgaris and tinea barbae Treatment with mud packs hastens regression of rheumatic nodules

Various forms of cutaneous tuberculosis, particularly papulonecrotic tuberculids, scrofuloderma and erythema induratum (Bazin) are favorably influenced through spa care Wohlstein employed mud in cases of rosacea, ulerythema ophryogens, and in lupus erythematodes

Summary and Conclusions

1 The role of spa therapy in diseases of the skin is discussed

2 Therapeutic spa measures are outlined

3 There is no routine spa treatment Treatment must be individualized for each patient

4 Spa care takes the patient away from the dreary, everyday chores and sets him in a new environment with a hope of a "cure" The spa per se, the scientifically regulated regimen, and the spa measures combine to establish optimal general health

5 Sulfur spring waters and sulfur mud act as stimulating agents in a number of chronic, stubborn diseases of the skin which fail to respond to ordinary dermatologic care

6 The United States abounds in mineral springs and other natural products at spas possessing facilities for their use in diseases of the skin to make it unnecessary to go to foreign resorts *

7 Spa care should be looked upon as a valuable supplement to the recognized therapeutic armamentarium of dermatologists practicing at a spa

8 Spa therapy is an established component part of physical dermatotherapy

123 East 84th Street

* In 1930 approximately 100 000 Americans were treated at European spas †

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A M A EDITORIAL CONDONES SHOE-FITTING FLUOROSCOPES

The x-ray fluoroscope machine used in many shoe stores "simply cannot be really safe in the hands of those untrained to its use and relatively ignorant of its dangers," says an editorial in the April 9 issue of the *Journal of the American Medical Association*

ChE in the human.[40-42] There is thus an explanation for the efficacy of certain cholinergics as "desensitizers" to cholinergic episodes, although such "desensitization" is nonspecific in the allergy sense. Again the term "atopy" is preferable.

3 Fibrillary-pyrexial-tetanic reactions are composed of the classic rigor, chills, and fever symptoms The somatomotor phase may vary from fibrillary twitchings to the coarse spasms of tetany, the last, however, being readily distinguishable from the clonus of the epileptoid phase of syncope Here, again, the reactivity to typhoid vaccine is purely nonspecific, the same type of reactor evincing a fibrillary pyrexial response to any cholinergic stimulus whatever, whether this be of the nature of infection, metabolic disturbance, or emotional stress

Any cholinergic stimulus or group of stimuli can additively summate to produce a cholinergic reaction, and the latter is liable to manifest itself in any single one or any combination of the reactions described The ultimate form of a cholinergic reaction or state will depend more on the constitutional predisposition of the reactor than the specific nature of the cholinergic episode or stimulus inducing the reaction Thus, emotional stress, infection, the administration of ACh or histamine or essential estrapenia will produce one set of symptoms in one individual and an entirely different train of manifestations in another It also follows logically that there may be a group of individuals in whom estrapenia or the imposition of cholinergic stimuli will produce no manifest reaction whatever

Malignant Estrapenia and the Blood Dyscrasias

Sabine demonstrated the primary role of the bone marrow in the elaboration and maintenance of the blood ChE In the malignant hematologic dyscrasias are found the most profound systemic evidences of cholinergic intoxication.[26]

In support of Sabine's theory, those anemias characterized by actively regenerative marrows, as well as polycythemic bloods, yield high ChE values.[17] Following blood donation and a transient fall in ChE, there is a sharp compensatory rise which, after a few days, carries the blood ChE above its predonation level.[25]

In macrocytic anemias, whether of the Addisonian or nutritional type, or in the anemias associated with subacute bacterial endocarditis, polyarteritis nodosum, glomerulonephritis, or generalized malignancy, the ChE values are low, indicating the actual hypoplastic nature of these anemias However, it is in the malignant hematologic dyscrasias that the extremely low values are found In one of our cases of acute leukoblastosis, it was the lowest value ever recorded—1 28 unit per cc.[43] This lowering specifies that in the malignant dyscrasias we are dealing primarily with a bone marrow depression and not the reverse Liver extract or folic acid is not converted to ChE by the leukotic marrow The situation in the malignant dyscrasias is different from that of pernicious anemia where the ability for this conversion exists Hence, in the acute leukemias, as in the other malignant dyscrasias (granulopenia, irradiation purpura, aplastic anemia, thrombopenia, lymphosarcoma, endotheliolymphogranulomatosis), our attempts at rational therapy are restricted to such measures as will elevate the blood ChE substitutively Unfortunately, although we may be dealing with potentially remittable conditions, we have as yet no effective method of raising the blood ChE directly Blood transfusion has a limited effect, massive plasma infusion appears to be somewhat better Urethane, barbital, alpha-tocopherol, and ascorbic acid each have a slight in vitro activating effect on the blood ChE, and their use would, therefore, appear to be indicated.[44-46] Purified ChE preparations are due for trial

It is in the differentiation of the malignant from the benign hematologic dyscrasias that the diagnostic value of the blood ChE determination resides.[43] In the benign systemic lymphoses ("infectious mononucleosis" and reactive lymphadenomatosis), these values are normal, or even somewhat elevated, particularly in the longstanding conditions Some of the values appear to be in the atopic range

Miscellaneous Cholinergic Conditions

The blood ChE level is not the sole determinant of the presence or absence of a cholinergic state There exists a variety of conditions in which a cholinergic basis can be incriminated but in which estrapenia is not a feature In the few cases of chronic ulcerative colitis in which blood values have been obtained, there appear to be the somewhat elevated values (and not infrequently a similar morphologic blood picture seen in "infectious mononucleosis") Both conditions are frequently precipitated or aggravated by a cholinergic stimulus Blood ChE is definitely lowered in arthritis deformans, markedly so in the case of Felty's syndrome analyzed by Nigro and Barnard who reached the conclusion that this syndrome was an atopic-exudative form of cholinergic state.[47] Barnard and Sprinz found the mechanism of death in acute leukoblastic leukemia to be identical with that of either peptone or anaphylactic shock in its entirety, including the terminal outpouring of heparin into the blood.[25,48]

Irradiation death appears to have a similar mechanism Any penetrating radiant energy depresses the marrow and leads to a sharp drop in blood ChE Atopic phenomena appear, and

rise in the former in the chronic allergies and showed the whole blood ChE to be elevated in the latter [21-24] This is denied by Alles and Hawes [25] Berger reported an increase both of blood ACh and ChE in "functional disturbances of the autonomic nervous system "[26]

We must accept the verity of the suggestion, inherent in many reports that, in the human, occasional or even frequent ACh "flooding" from the nervous system does occur—that, as Alexander has pointed out, the human is a "cholinergic" animal [27-29] It is believed that, because of the large relative size of the nervous system of the human, this system may act, in effect, as a massive endocrine organ for the elaboration of systemically escaping cholinergic substance A special mechanism has to be extant to cope with the cholinergic "seepage," and, presumably, for this reason the blood ChE is higher in man than in any other mammal [4]

Blood Donor Syncope and Related "Shock" States

The importance of ACh "flooding" became evident during the war with close medical observation of the three forms of cholinergic response syncope of blood donors, typhoid vaccine reactions, and the shock responses

During the war, several million healthy subjects made blood donations Seven per cent developed a syncope syndrome (weakness or actual fainting, pallor, hypotension, hypothermia, and hyperdrosis) One out of 100 of this 7 per cent had an epileptoid or tetany phase, or both, accompanying or complicating the syncope syndrome The syncope was frequently protracted into a condition indistinguishable from surgical shock, and occasionally there was precipitation of a coronary occlusion.[30]

The marked similarity of blood donor syncope to "primary" or "neurogenic" shock was arresting and repeatedly noted [31 32] Blood donor syncope also duplicates the syndrome produced by intravenous injection of ACh, provided the subject has the same well-defined set of physical and psychologic stigmata that characterizes the individual who faints either in anticipation of, during, or following blood donation [33] Such subjects have a diminished skin vascularity and a well-developed panniculus adiposus (even the absence of any degree of obesity) [34] The blood ChE is within normal limits but may be lower than the average [35] The response to the endogenous ACh is unique in this type of reactor

When the total blood ChE is lowered by bleeding (moderately by withdrawal of a pint, markedly by loss of a quart), the circulating ACh in these subjects, causes vagal cardiac inhibition [17 36] This is one of the muscarinic effects of ACh By nicotinic effect, there is marked constriction of the skin capillary bed (hence the pallor), capillary arteriovenous dissociation, mild "forward" cardiac failure, and syncope [34] Thus the blood donor syncope syndrome is an example of a *cholinergic reaction* Blood donation or its anticipation leading to such a reaction is a *cholinergic episode*

Typhoid Vaccine Reactors and Atopic Cholinergic Reactions

Because of current interest in shock states and the apparent relationship of blood donor syncope thereto, another class of syncope reactors, those from typhoid vaccine administration, was investigated [37] Within a one- to two-day interval following the administration of the second dose of the Rawlings strain typhoid vaccine used by the Army, some of the subjects had a syncope reaction similar to blood donor syncope In a similar percentage the syncope reaction was accompanied or complicated by an epileptoid phase. Further inquiry revealed that other subjects undergoing typhoid immunizations would exhibit different reactions There was, however, in all reactions, a common nosologic feature in that such reactions occurred only during a certain interval following the second dose of vaccine and in individuals of certain definitive body type

Reactions to typhoid vaccine could be classified, along with the reactors, into three major categories, epileptoid-syncope, atopic-exudative, and fibrillary-pyrexial-tetanic

1 Epileptoid-syncope reactions and reactors have been described under the heading of blood donor syncope

2 Atopic-exudative reactions are apparently allergic or anaphylactic in nature and may be divided into two subtypes

(*a*) Visceral atopic—usually manifested by an attack of bronchial asthma, sternutation with conjunctivitis and rhinorrhea, and/or gastrointestinal hypermotility

(*b*) Cutaneous atopic—usually urticarial but occasionally petechial or frankly purpuric

Blood ChE studies have not given much information on the underlying mechanism of the acute atopic attacks Much of the published evidence is contradictory [21-25] Histamine is a cholinergic drug, and anaphylaxis in animals is accompanied by estrapenia [38 39] However, in the instance of cholinergic reactions, it is dangerous to draw conclusions for the human on the basis of animal experiments, since humans are probably unique in their reactions to cholinergic stimuli

Following repeated sensitizations, in the chronic allergies, or after prolonged administration of cholinergics (acetylcholine, histamine, insulin), there is protracted elevation of blood

ELUSIVE MENTAL CASES

Indecision

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IT IS normal for anyone to be in doubt about what to do, to be uncertain of the best way out of a difficulty, or to take a resolution and not abide by it Some degree of instability or lack of persistency cannot be regarded as abnormal However, as in all human actions, the problem, the tendency to abnormality, begins when there is an excess Doubt, hesitation, indecision, and uncertainty are abnormal when they are exaggerated or excessive

It is not abnormal to make doubly sure that the match has been completely extinguished before throwing it away, that the lights are out and the doors locked before leaving the house Some of us may be more attentive to such details than others However, to peer into the utter darkness to see whether there is still some light left or to keep pacing back and forth to and from the house without ever being convinced is an obsession If one goes further yet and cannot depart for fear that he is overlooking something important and, at the same time, is aware of his abnormality or exaggeration and deeply unhappy about it, then we have a mental disorder—doubting insanity

It stands to reason that whenever we are willing or whenever we wish to do something, we ask no questions, we raise no objections We do it But when we interpose some doubts, some inhibitions, when we connect the action with as many unpleasant feelings as we can, we make it hard or impossible to act If our doubts are of a grave nature and, try as we may, they fail to disappear, and if, on the other hand, the original desire or duty to perform the act persists, an inner clash or conflict arises, the problem remains unsolved, and we suffer

Uncertainty and doubt are akin to obsession and compulsion, but instead of forcing a patient to make some senseless motions, they interfere with his doing what he considers necessary Just as there are positive or active compulsions and obsessions, so there are negative or passive ones

These situations, if viewed from a group or social viewpoint, correspond to the positive and negative taboos in primitive society and, among civilized people, to the positive and negative superstitions which have developed into a good many religious commands and prohibitions (*Gebot* and *Verbot* as the Germans would say, or in a somewhat different sense the *saase* and *loh saase* deeds of the Hebrews) None of the tribes, groups, or individuals who obey such rules are abnormal, nor are they regarded as such, although they are imbued, knowingly or unknowingly, with thoughts and duties related to obsession and compulsion, and, while they betray no uncertainty now, originally they showed more than one tendency

The following examples, notwithstanding their monotonous character, are illustrations of some of the most frequent forms of the doubting mania as it is presented first in medical offices and eventually in psychiatric practice Of course, there is always a motive behind this lack of decision, whether we discover it or not

Case Reports

Case 1—A woman with an overwhelmingly large fibroid uterine tumor had been advised to have it removed and had hesitated for years She had heard that the menopause caused such growths to "shrink." Although she was also told that this was an impossibility when the size was so extensive, she insisted in carrying her now greatly protruding abdomen At last a psychiatrist, to whom she was sent and who made her tell her life story, discovered the why of her annoyance This childless female, in her yearning for an offspring, was reluctant to do away with something that resembled a pregnancy At the same time, she correctly guessed that a hysterectomy, which she knew was inevitable in an operation of this kind, would result in sterility That her gradually developing growth may have been the reason for her sterile condition all through her married life, she did not realize All through those years she was decent in every respect, well adjusted and with outwardly normal behavior She was a model housewife, had no trouble with her husband, and was highly esteemed by her acquaintances No one in her family, none of her friends or doctors, except the one who contacted the psychiatrist, suspected any mental aberration She finally agreed to the operation—and the true complication began thereafter Now she regretted having submitted to it She doubted its necessity She had heard of a woman conceiving, notwithstanding the presence of a tumor She felt that all her hopes were shattered forever She even threatened the surgeon with a law suit

Just then she was persuaded to adopt a baby, which she did, only to restore it within a short while to the institution whence it came No sooner had she done that than she reconsidered this decision

death is due to thrombocytopenic purpura Radiation leukemia has the same explanation as the "spontaneous" acute type, an attempt at compensatory overactivity of the marrow which fails in anything but the elaboration of undifferentiated leukocytes It is possible that blood ChE determinations will replace the less exact morphologic checks now used as a safety measure in x-ray, radium, and nuclear physics technicians

In the evaluation of blood ChE determinations, it is important to bear in mind that, as determined in the blood-donor survey, only 7 per cent of individuals react to estrapenia by manifest cholinergic phenomena If the recent studies on di-isopropyfleurophosfate in humans had not been limited to just a few individuals, some "cholinergic" reactors in that series would have been uncovered, and the results in such individuals might be tragic Whereas 7 per cent makes up a small percentage of the population, this group variously known as "vagotonic" or "asthenic" makes up a much higher percentage in the morbidity bracket

Rheumatic fever and the benign systemic lymphoses are examples of possible atopic conditions in which a normal or elevated blood ChE is extant As Lichtwitz points out in regard to rheumatic fever, it is "not caused by a specific micro-organism—but by a sensitization to antigens—in most cases products of micro-organisms [which] may be pathogenic or nonpathogenic Such sensitization might also arise in response to foreign proteins that are not of microbic origin"[49] Antigens such as pneumococcus toxin and even peptones are strongly antiesterase [50–52] Among the list that could be added to Lichtwitz's sensitization substances are those cholinergics which may be produced endogenously choline, iminazolyl, and guanidyl derivatives The prolonged administration of systemic elaboration of any cholinergic will stimulate the compensatory overproduction of ChE in those individuals with a functioning bone marrow Whether cholinergic phenomena still persist because of the inadequacy or insufficiency of this compensation is not as yet known

In no instance need they be specific, and it is possible that the clinical dissidence is due to individual constitutional reactivity Paralleling the individual's peculiar humoral response to a cholinergic episode, there is probably some degree of variability in the tissue response as well Thus, the possible existence of "lymphoid" or "endothelial" types of constitutional reactors is predicated [53] This interesting phase of the varied morphologic response of cholinergic episodes awaits further investigation

Summary

The role of blood cholinesterase studies in the elucidation of the mechanism of cholinergic episodes, reactions, and states in man is outlined Such determinations have been of particular importance in the adjudication of action of cholinergic endogenous substances and of specific diagnostic value in the differentiation of the malignant from the benign hematologic dyscrasias

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the more spacious sleeping rooms" of the second apartment The husband said, almost seriously, that he "was so sick and tired of her, he would let her have both apartments" He cited instances about her similar behavior in other circumstances

A moment came when she did not dare ask for a reversal She was criticized pitilessly by her family and even if she wanted to she could make no decision, because she saw advantages and disadvantages in both places

In this case and in the matter of rooms, the analysis failed to disclose the precise mental mechanism of the unsolved doubt, but it seemed to have something to do with the sleeping accommodations for her and her husband, which she had hoped to change with a new apartment Apparently her disillusionment came when she found out that no desirable arrangement of the sleeping rooms, either in one or in the other apartment, was possible

Case 5—A woman, while extremely anxious to please her husband, also suffered from jealousy Although she found it necessary to accompany him wherever he went, she turned down his invitation to go with him on a business trip by ocean to South America A year later, after much insistence on his part, she accepted, but refused at the last minute, so that her boat ticket had to be returned to the company's office He departed without her, and then she felt miserable and spent a few months in sadness and regret

The next time he traveled abroad she followed him, but, in spite of a fine, smooth sailing, she was "awfully afraid of the water, trembled during the passage both going and coming, was tense, expected a shipwreck every minute, and was relieved only when touching ground in an American port" The third year she let him sail alone, and the time spent without him was a torture

When questioned in detail, she attributed her "fear" of the water to an incident that occurred in her girlhood, when a boy, a school colleague, was drowned in a lake in her presence Another element was combined in this distant event From the emotional appearance of her face and from her entire behavior while telling the story, it was evident that the young friend had meant more to her than a fellow student, although her true sentiments toward him were still unknown to her, or rather hidden from her by a subconscious purposeful effort There was the—perhaps hopeful—possibility of a shipwreck and of a drowning of her companion, which, naturally, she would hate to witness

Her "fear" was not an obstacle to such an interpretation It really amounted to a "fear-fulfillment" and was created, as it always is in such cases, by the subconsciously submerged "censor" That she did not love her husband, who had replaced in her life somebody dearer to her, would be clear to anyone who understands the significance of her jealousy To make matters worse, he, although quite fond of her, happened not to be a demonstrative type or to show his affections constantly For example, not given to much talking, he read a newspaper in her presence whenever they happened to be together

He too came to the psychiatrist and was advised to pay more attention to her and even to initiate her in his own work. He gladly consented and allowed her to spend a few hours daily in his office and to become interested in his business. This helped so much that she took part eagerly in his new voyage, without giving a thought to the water Now she became aware of the purpose of these commercial missions and participated actively in them, contributing a good deal to their success

In all of these cases, the patients were rational, useful, and able to work. In none of them were their problems appreciatively conspicuous so as to appear abnormal Their abnormality was elusive

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FAMILY PHYSICIAN BACKBONE OF THE MEDICAL CARE SYSTEM

Dr Ward Darley, speaking on February 4 at the fourth annual National Conference on Rural Health in the Palmer House, Chicago, sponsored by the American Medical Association, cited the trend toward specialization in medicine This, he said, is wreaking havoc with patient-physician relationships.

"Medical care," he said, "no matter how superior it may be from the scientific standpoint, cannot be truly effective unless the patient-physician relationship is such as to permit the physician to make the maximum use of his own personality as an agent of comfort and therapy The general trend to impersonalize medical care, and thus deny our people one of the essentials of the best medical care, will be our undoing unless we do something to keep the personal physician, the general physician, the family physician, the general practitioner—call him what you will—in the scheme of things

"In rendering his services, the family physician will not infrequently need the specialist's help During a period of specialist care, however, the physician should keep in the closest possible touch with his patient's problem. We must realize that the health of a patient and the health of his family is not alone concerned with what may be taking place in the operating room, but with what may be taking place at home." The general practitioner, in his opinion, should be a physician "who is primarily interested in health and the prevention of disease"

"His interest in the individual will be one of continuity," he said, "not a series of short periods of interest that correspond with isolated episodes of illness The general practitioner is the only one already closest to our people and, if it were not for him, our problem of maldistribution of medical care would be infinitely worse than it is"

and applied for the child again At that time it was no longer available and, of course, no other infant would be accorded to her She was now on the list of the unreliable foster mothers However, she succeeded in adopting an illegitimate child by dealing directly, without anybody's intervention, with the young mother But again, within a brief time, she brought the child back to the despairing girl Within the next few years she repeated the same thing with other infants It was during the economic depression, and it was easy to plunge into the prevailing poverty and choose a child among the unwanted ones Once a physician was the intermediary between her and a person stricken with undesired maternity Her ready cash attracted some mothers and, in one case, even a couple She always managed to dispose of the babies by either returning them or giving them away to another sterile woman She never found fault with them and seemed to know that the defect was within herself

After many failures she visited the psychiatrist again, and then the search for a child, her effort to taste of motherhood, ended after several sessions of psychotherapy She joined a society of women visiting and helping mothers and newborn babies after their return from the hospital She is still active in this field

Case 3 —A man, fifty-six years old, living with his wife and two grownup children, had no complaint of physical ailments He was upset and at first reluctant in telling of what his disturbance consisted After some coaxing he said, "What I suffer from is so ridiculous that anybody would condemn me or call me a fool"

For many years he and his wife had owned a food store A year before his family had prevailed upon him to sell it and to start a less fatiguing and less exacting business He followed their advice, but then his difficulty started For a time he went every day to the old store and volunteered his services freely to the new owner Later, when he connected himself with another business of the same kind, his wife worked with him there and, although conditions were favorable, he found them unsatisfactory Thinking fondly of the days when he possessed the old place, of all the trifles related to it, he was often unable to sleep, or his dreams were full of the images of his customers of long ago whom he remembered affectionately Then his wife went to the new proprietor of the shop and succeeded in buying it back for a sum double the amount paid for it The patient, again together with his wife, took possession of his previous establishment, and for a brief time he was happy But shortly his indecision came back, and now he felt something was changed Some new, and to him unknown, situation had been added, or something had disappeared The "charm" which he had associated with the store had evaporated. The imaginary "poetry" with which he had endowed the prosaic counter had deteriorated in his imagination and now failed to inspire him.

At this time he was more unhappy than ever He discontinued working, stayed completely away from the store, and let his wife and clerk run it This patient suffered from a depressive psychosis, but his condition was not easy to discern for anyone not familiar with his indecision His behavior in ordinary matters was exemplary

This man, while openly on the best of terms with his wife and apparently well adjusted to her, really harbored a deep-seated aversion toward her He resented always being associated with her at his work He did not know that what he really wanted was to have a job without her

As soon as he gave up the idea of a store entirely and found an occupation in which she could not possibly join, he was cured

Case 3 —A man had had in his commercial career a similar experience, in this case regarding a factory and a partner in business To show his obsessive indecision he mentioned his necessity to "check the mailbox every half hour, knowing full well that the mailman could not have made a new delivery so soon" But he did not begin to suffer intensely from his mental condition until he "decided" to get married

When he was thirty-five, he loved a girl who responded quickly to his courtship During the months in which he saw her there were days when he was ardently attached to her and other days when he was in doubt about his feelings Sometimes his attentions were exaggerated, and he made a nuisance of himself At other times he neglected her, and the girl was in despair Her telephone calls and letters remained unanswered He vacillated so long she finally told him there was another suitor Then he became incensed and went to see her He worshipped her again and made the greatest effort to reconquer her But, as soon as she consented and broke with the other candidate, the patient cooled off and was indifferent. Now she did not wait long to carry out her threat and married the other man This threw the patient into melancholy

After a short time, however, he consoled himself by finding another girl, and a third, and a fourth. He pledged marriage to each one in all sincerity Yet just as sincerely he disengaged himself

At last he did marry and was sure that his problem was solved However, within a week or so he discovered his lack of interest in his wife and wanted to be released The more she loved him and clung to him, the more he felt guilty The more unhappy he was, the more faithful she grew It all ended in a separation, but he remained uncured His indecision in respect to women as well as in other matters persisted

Case 4 —In the blissful days before the present housing shortage, when living rooms were to be had for the asking, a woman, after considering several apartments, rented one The next day she regretted having done so, because she was sure that she preferred the one she had seen before. She went to the landlord who had leased the apartment to her and he agreed to refund the deposit. A few days later, however, she was convinced that the first apartment was better "It had more windows and a healthier exposure" This time, too, she succeeded in making the change But she regretted "the more comfortable kitchen and

On admission, he was in acute respiratory distress, sitting up in bed and perspiring profusely Expiratory stridor was noted, and the lungs were filled with musical and moist rales Temperature was 102 F, pulse 88, respiration 30, and blood pressure 108/74 Blood count and blood chemistry were normal There was no eosinophilia Serology was negative Urine examinations were negative (14) He was placed on sulfadiazine therapy and continuous oxygen, along with adrenalin and aminophylline as needed and ephedrine and phenobarbital capsules. Wheezing was audible to the unaided ear, and respiratory distress and cyanosis were severe in spite of oxygen and medication Circulation time (decholin) was normal Benadryl was started December 13 Cyanosis increased, and the patient exhibited signs of exhaustion He was placed on penicillin Atropine, demerol, adrenalin aminophylline, and ephedrine were ineffectual On the following day there was slight improvement coincident with a slight drop in temperature Pyribenzamine was substituted for Benadryl in the same dosage (50 mg every four hours) He received daily infusions of 1,000 cc of 10 per cent glucose in saline, each containing 2 cc of adrenalin

Suspecting the presence of a foreign body in one of the bronchi, bronchoscopy was ordered on December 16 but was cancelled because of the poor condition of the patient All medication except penicillin was discontinued On December 17 there was marked improvement, the chest was clear although expiration was prolonged, and respiration still appeared labored He continued fairly well until December 20, a period of three days In the interim he was bronchoscoped There was no evidence of foreign body It was noted that there was intermittent spasm of both main bronchi during the procedure The mucosa was reddened There was considerable thin, serous fluid aspirated from the lower portion of both main bronchi which refilled rapidly A second bronchoscopy was done on January 23 when it was noted that the mucosa was less red

On December 21 he again went into status asthmaticus, and his temperature rose to 102 F The next day it was 104 F There were signs of consolidation at the left base, but the status asthmaticus subsided completely X-ray revealed accentuation of vascular markings This was apparently an episode of pneumonitis During this period the penicillin was increased to 50,000 units every three hours from the 30,000 which he had been receiving previously Recovery from this intercurrent infection was uneventful, and, although his chest became clearer, the cough persisted.

On January 7 he again went into status asthmaticus Some measure of relief was obtained with infusions of 10 per cent glucose in saline containing adrenalin Additional therapy consisted of aminophylline suppositories and sedation. He continued in this condition until February 4 (almost one month) The patient continued to lose weight and remained cyanotic A bronchogram with lipiodol was negative for bronchiectasis Allergy work-up was negative, and it was the opinion of the consultant that the sinuses were the source of the allergens Sinus x-rays revealed clouding of the left frontal, ethmoid, sphenoid, and maxillary sinuses The turbinates on the left side were enlarged A left antrum puncture was done on December 11 The returning fluid was clear, and a diagnosis of hyperplastic maxillary sinusitis was made Penicillin aerosol during this period was ineffectual

On February 4 he again developed signs of pneumonitis X-ray revealed evidence of pneumonia The temperature rose to 104 F, and with this there was subjective improvement Wheezing and respiratory distress came on again as soon as his temperature returned to normal, and evidence of the pneumonic process cleared (February 14) On February 17 he had a violent chill lasting ten to fifteen minutes, followed by a rise in temperature to 103 F The cause was not determined X-ray of the chest was negative, but by February 20 the patient was almost symptom free

At this point it was suggested that, in view of the remission of symptoms during febrile periods, it might be wise to institute some form of fever therapy as a therapeutic measure Triple typhoid vaccine intravenously was suggested It was decided to withhold this treatment until he had had a trial of penicillin and streptomycin by inhalation, along with both antibiotics intramuscularly This was done, and by March 10 he was so improved that he was left alone However, on this date he again went into status asthmaticus All medication was then discontinued, and he was given triple typhoid vaccine, 25 million organisms well diluted in saline, intravenously This was followed by a chill and rise in temperature to 100 F By the next morning there was marked clinical improvement Respiration was easier, and the patient stated that he had had a comfortable night On March 11 he was given 50 million organisms There was a temperature rise to 103 6 F On the next day only a few scattered wheezes were found in the chest There was no cyanosis and the patient was able to lie flat in bed with no respiratory difficulty He was given a third dose, again 50 million organisms, followed by a rise in temperature to 105 F, with continued improvement He received two more injections (March 14 and 17), each followed by a temperature rise to 104 F

By March 18 the chest was clear, there was neither dyspnea nor cyanosis, and his general condition was excellent On March 20 he was allowed out of bed, and on March 27 he was discharged Only once, during the week before discharge, did he develop a sense of fullness in his chest which lasted one hour This cleared spontaneously He has been, and still is, under observation as an office patient (nineteen months) He has had no acute episodes but complains of tightness in his chest at night and in damp, foggy weather He receives up to 1 5 cc. of the vaccine subcutaneously (undiluted) at intervals of two to three weeks with instructions to rub the local area on arriving at home He was gradually built up to this dose from an initial dose of 0 1 cc This is usually followed by a rise in temperature of 101 to 102 F and eases the tight feeling On rare occasions there have been scattered musical rales

RESPONSE TO INTRAVENOUS TYPHOID VACCINE IN INTRACTABLE STATUS ASTHMATICUS

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THE literature contains numerous reports on the use of fever as a mode of treatment of allergic states, with particular reference to its effectiveness in the termination of episodes of status asthmaticus and the general amelioration of symptoms thereafter [1–7] Much has been written on the use of pertussis vaccine along with suggestions as to reasons for its ability to produce desired effects [8–10] Autogenous vaccines are mentioned, and in passing, the use of intravenous typhoid is also considered, but with caution in that it is suggested that its use endangers the general health of the patient, especially in cases of elderly patients with or without generalized arteriosclerosis [2,3,11,12] The consensus of opinion apparently favors the elevation of temperature to therapeutic levels through the use of an external heating mechanism in the form of a heating cabinet of one form or another The most widely used is the Kettering Hypertherm which utilizes a cabinet through which hot moist air is circulated resulting in a gradual and controlled rise in temperature which is sustained for a period of several hours

Apparently, there are no detailed reports on the use of intravenous typhoid vaccine, nor an evaluation of its effectiveness in status asthmaticus The results obtained with fever therapy appear to be encouraging, but in the absence of elaborate equipment it would appear that any method used, if carefully controlled and if capable of producing the desired results, would be acceptable The use of triple typhoid intravenously in the treatment of chorea is well established, and its use is not questioned As to the danger involved in the handling of elderly patients, carefully controlled dosage should reduce this to a minimum and allow for its administration at any hospital

Klewitz used a mixture of killed bacteria (pyrifer) intravenously, given at four- to five-day intervals for three doses, obtaining temperature rises to 102 F No specific details are given as to results of therapy [11] Feinberg and Osborne noted that the advent of intercurrent infections in cases of asthma usually resulted in temporary amelioration of symptoms It was on this basis that they utilized a high-frequency current to elevate the body temperature of asthmatics Of 42 patients treated, 70 per cent of whom had complications, such as emphysema, chronic bronchitis, or bronchiectasis, and all of whom had not been relieved by the usual methods of treatment, 80 per cent improved clinically The authors note that perhaps persistent treatment with fever might have given better results and suggest it as a method of therapy where other methods fail [4] In another report 11 cases were treated with the Kettering Hypertherm [3] Eight (73 per cent) were much improved Hyde and Fairfax treated 20 cases of asthma with a humidified heating cabinet (Hypertherm), giving one treatment daily until what they termed a "primary response" was obtained [1] This was characterized by decreased bronchospasm, increase in moist rales, and a productive cough with a subjective feeling that the attack was going to end The number of treatments varied from one to four Seventy-five per cent showed clinical improvement One year later, all cases exhibited some symptoms, but they responded to home remedies and adrenalin where they had been refractory before The authors believed that repeated short elevations to 102 F were as effective as, if not superior to, longer and higher fever sessions, with less strain on the patient Philips and Shikany suggest a minimum of ten treatments with 15 to be preferred [6] The optimum number of treatments apparently has not been completely established

The case to be presented is one in which the use of standard New York Board of Health triple typhoid vaccine intravenously produced rather startling results where all other measures had failed

Case Report

P S , a thirty-eight-year-old white man, unemployed, formerly a hotel manager, was admitted to Coney Island Hospital on December 11, 1946, complaining of an inability to breathe for ten days with failure to respond to medication On the evening of admission he had received an injection of adrenalin and an ampule of aminophylline intravenously with no relief Three weeks previously, he had developed a cough with malaise and mild vertigo After two days in bed he improved, but the cough persisted Ten days before admission, while ascending a flight of stairs, he suddenly became dyspneic and remained so

His past history revealed pneumonia in 1942 while in military service It was subsequently learned that he was receiving Veterans Administration compensation for service-connected asthma which apparently followed this episode of pneumonia

THE ROLE OF BRONCHOSCOPY IN THE PREOPERATIVE DIAGNOSIS OF CARCINOMA OF THE LUNG

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AS SURGERY for cancer of the lung has progressed, more emphasis is being placed on the importance of early diagnosis It is timely, therefore, to evaluate the advantages and point out the limitations of bronchoscopy as a diagnostic procedure and as a factor in determining operability or inoperability

Peripheral tumors of the lung in their early stages cannot be visualized through the bronchoscope, and, therefore, they constitute the most favorable type for operability if exploration is done early More centrally located tumors can be visualized through the bronchoscope at an earlier stage in their development and produce symptoms earlier, but, because of their proximity to the heart, the esophagus, and great vessels, a relatively short extension of the process may preclude resection Centrally located tumors cannot be seen unless they protrude into the lumen of a bronchus that is visible through the bronchoscope Upper lobe branch bronchi can be seen for a short distance with the retrograde mirror, but the secondary branch bronchi are difficult to visualize A tumor in the dorsal branch of the lower lobe is difficult to see unless it protrudes into the main division of the lower lobe bronchus Similarly, a tumor may encircle a smaller branch bronchus, while its site of origin in the mucosa escapes detection

In view of the more radical approach to surgery in cases involving the mediastinum, the following points should be noted at bronchoscopy so that the surgeon will have as much information as possible before exploration [1]

Compression of the trachea laterally is significant as it implies the presence of a mass or of enlarged glands in the lateral tracheal chain. Involvement of the tracheal wall in the tumor process is, at present, considered a criterion for inoperability Resection of the trachea has been done experimentally, but it is not yet feasible in human surgery [2] Whether the mass can be resected or the glands removed can be determined only at operation. Pressure in itself does not imply inoperability Widening of the carina indicates the presence of an enlarged lymph node which is usually malignant However, such a gland has been successfully removed in the presence of a tumor, so that this finding does not in itself denote inoperability The surgeon should be aware of the presence of this gland before operation so that he will have an accurate picture of the extent of the disease process

Angulation and deviation of the main bronchus may be caused by atelectasis of the lung segment supplied by one of the lesser bronchi on the diseased side, due to compression of the lumen with tumor tissue If this mass is visible through the bronchoscope, its distance from the carina should be noted, also the branch bronchus involved in the tumor process, and, if possible, the site of origin of the tumor Pedunculated growths extending into the trachea or main bronchus from one of the lesser bronchi may give the impression of inoperability until it has been found that such extension has occurred Longitudinal striations in one of the bronchi imply compression from without If this pressure is below the carina, the tumor may be operable Bleeding is always suggestive of a neoplasm, especially if granulation tissue is visible

The use of the Papanicolaou stain to determine the presence of malignant cells in the bronchial washings has given the bronchoscopic examination increased significance [3] This test is based on the fact that tumors shed cells in their growth, and, therefore, washings or aspirated tumor secretions will contain individual cells that can be identified as malignant

A tumor should be classified as being as malignant as its most malignant cell [4] Therefore, the finding of a single cell with characteristics of a carcinoma should be sufficient to justify the diagnosis of carcinoma This technic requires the services of a skilled cytopathologist and is valuable in securing a positive preoperative diagnosis However, in suspected cases, an exploratory thoracotomy should not be postponed on the basis of a negative cell diagnosis, since a tumor in its early stage may not be within the range of this technic Whereas, formerly, a positive diagnosis was obtained by bronchoscopy in approximately 58 per cent of cases, it is now possible with this technic to secure a preoperative diagnosis in about 90 per cent of cases [5 6] Biopsy or cell washings should be taken in all cases in order to differentiate carcinoma from benign granulations seen in the presence of a foreign body or associated with tuberculosis or suppuration

In a recent series of resections for nonmalignant suppuration it was found that some of the bronchoscopic findings show a similarity to those usually found in malignant disease. In the accompanying table it will be seen that rigidity, angulation, and constriction of the main

in his chest At all other times the chest has remained clear He has regained his weight, and his general condition is excellent

Of all the laboratory work done, the only significant findings were a variable eosinophilia, ranging from none to a count of 18 per cent The highest count was coincident with the period of unexplained fever and diminished as his clinical condition improved Four sputum cultures were done All were negative for acid-fast bacilli Two revealed nonbudding yeasts, one revealed Micrococcus catarrhalis, and the last disclosed M catarrhalis and predominent Staphylococcus albus The latter was considered a contaminant Four sputum examinations were made for evidence of eosinophilia Three were negative, and one disclosed 1 5 per cent eosinophils

It should be mentioned that at various intervals he was given helium and oxygen and nicotinic acid by mouth and vein In the belief that there might be a psychogenic element involved, he was given repeated doses of sodium amytal intravenously with no effect other than narcosis The asthmatic state persisted while he dozed or slept sitting up

Discussion

Comment on the case itself would be superfluous at this point Practically everything in the therapeutic armamentarium was tried before resorting to hyperpyrexia as a mode of therapy Just why the treatment was effective is in the realm of conjecture Sputum cultures w remarkable If the sinuses contained org to which this patient was allergic, then o postulate the bacteriostatic or bacter action of the hyperpyrexia However cannot be proved in that the antral wa were clear and the fluid was not cultured. no positive statement can be made

Only one case is presented The usual responds more readily to ordinary measures did this one Perhaps if more of the se intractable cases of this type could be this form of therapy, a better evaluation be made

Summary

A case of status asthmaticus, prolon intractable, and resistant to all therapy, sponded dramatically to intravenous typh therapy

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DISTRIBUTION OF NATION'S DOCTORS

A study which will provide accurate information about the supply and distribution of doctors in the United States for the first time is being made by Frank G Dickinson, Ph D , Chicago, director of the American Medical Association Bureau of Medical Economic Research Using information furnished by state and county medical societies, Dr Dickinson has divided the nation into 757 medical service areas, somewhat similar to the trade areas that have been used in studying buying and selling habits of the population Because doctors and patients often cross state and county lines to give and receive medical care today, the traditional methods of computing the supply and distribution of doctors by counties and states do not provide an accurate picture The number of persons per doctor in any county is a meaningless figure, and the state is too large to be used as a medical service area

A progress report on the study appearing in the April 9 issue of the *Journal of the American Medical Association* shows that every person in the United States lives in one of these 757 medical service areas and that there are doctors in each area on whom persons in the area usually depend for their medical care Although some persons live near the border of each medical service area and some live in counties that have no doctors, no one lives outside a medical service area People in each area obtain most of their medical care from doctors in that area The average number of counties per area is four The areas vary in shape and size, and few of the boundary lines coincide with the boundaries of counties Two hundred and twelve areas cross state lines and 545 are entirely within states The larger areas are in the less densely populated western states, including Texas, New Mexico, Arizona, Nevada, and Idaho

There are 1,090 primary medical service centers, of which 87 offer every type of medical treatment and surgery The remaining 1,003 primary centers are cities and towns which, relative to the nearby towns and villages, are primary sources of medical care A large number of areas have two or three primary medical service centers

TREATMENT OF MENOPAUSE BY ESTRADIOL PELLET IMPLANTATION

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THERAPY of the menopause is psychosomatic, sedative, and endocrinologic From the endocrine standpoint, the menopause may be considered to be a condition of deficiency of the ovaries, just as diabetes mellitus is a deficiency of the pancreas, Addison's disease a deficiency of the adrenal cortex, etc Menopausal symptoms develop abruptly following ovariectomy—surgical or x-ray—or more gradually in the natural menopause

The symptoms of the menopause, including hot flushes, nervousness, insomnia, headache, etc , are sometimes ascribed to excessive production of gonadotropic hormone(s) by the anterior pituitary Yet, experimental evidence casts considerable doubt on this explanation. For example, many menopausal women with severe symptoms show no excessive gonadotropic excretion, and many women with high gonadotropic excretion at the menopause and at other times are without symptoms High gonadotropic hormone, therefore, probably does not give even the vasomotor symptoms of the menopause It is probable that lower folliculoid production by the ovary, with its diminishing suppressive action on pituitary function, results in increased production, not only of the gonadotropes but also of corticotropic, thyrotropic, and even lactogenic hormones Excessive stimulation of the thyroid accounts for much of menopausal symptomatology Conventional hormone therapy has been substitution therapy with estrogens by parenteral or oral administration in an attempt to compensate for the diminishing ovarian folliculoid production until the pituitary becomes adjusted to the diminished level of activity of the entire endocrine system.

Oral and parenteral estrogen therapy have their disadvantages Injections must be given three or more times a week, and oral tablets, capsules, or liquid must be taken at frequent intervals In addition to the inconvenience to physician and patient of parenteral therapy and the uncertainty of faithful cooperation on the part of the patient taking oral therapy, expense of these two methods of therapy should be considered Parenteral and oral therapy yield irregular estrogen blood concentrations Immediately after intramuscular injection, blood estrogen rises to the point considerably above normal and quickly falls to or below normal, with the resultant waste of the excessive amount Ideal hormone therapy substituting for any glandular deficiency simulates as faithfully as possible the normal, gradual, steady, straight-line production of hormone by the gland at fault The peaks and valleys of blood estrogen concentrations during parenteral estrogen therapy show this method to leave much to be desired Similarly oral estrogen therapy involves waste through lack of total absorption. In addition, there is frequently loss of estrogen by emesis

In consideration of these deficiencies in parenteral and oral estrogen therapy, a group of 11 menopausal women were treated by subfascial implantation of estradiol pellets, 25 mg * Such implantation of hormone supplies the patient with a veritable ovary as a source, for a period of months, from which is slowly absorbed an almost constant amount of estradiol closely simulating the natural production of estradiol by the normal functioning ovary As early as 1937, Deanesly and Parkes showed this method of hormone administration yields maximum effectiveness and is, therefore, most economical [1,2] The absorption rate of estradiol from such a pellet is remarkably constant [3] Loeser first employed pellets of estradiol clinically [4] Since that time many favorable reports on this method of therapy have been published [5-9] After a long experience with hormone pellet implantation therapy—folliculoids, luteoids, testoid, and corticoid—Greenblatt is of the opinion that this method most nearly approaches the endogenous mechanism of hormone secretion.[10] The implantation is best done at the same time as the removal of the ovaries In this way sufficient estradiol will be absorbed from the "ersatz" ovary in time to forestall the development of the usual deficiency symptoms of surgical menopause

The present study is concerned with 11 cases of severe menopause, natural and surgical, in which the usual parenteral and oral estrogen therapy, sedatives, hypnotics, and psychotherapy had been tried and found ineffective In ten of these patients one 25-mg estradiol pellet was implanted subfascially into the lateral aspect of the thigh about 4 inches below the hip

* The author wishes to express his thanks to Dr W H. Stoner Schering Corp Bloomfield New Jersey for the supply of Progynon pellets used in this study

TABLE 1.—Bronchoscopic Findings in 95 Cases of Bronchiectasis

	Uncomplicated Bronchiectasis	Bronchiectasis Associated with Lung Abscess	Lung Abscess and Tuberculosis	Acute and Chronic Suppurative Disease Limited to 1 Lobe	Acute and Chronic Suppurative Disease Involving Entire Lung
Total number of cases bronchoscoped	36	11	7	22	19
Bronchoscopic findings					
Inflamed reddened mucosa	12	3	3	7	4
Granulation tissue	0	0	3	1	2
Bleeding	0	0	1	1	1
Constriction of main bronchus	1	0	3	0	1
Constriction of branch bronchus	3	0	2	5	1
Distortion above carina	0	0	0	0	1
Rigidity of bronchial tree	0	0	0	0	1
Thickening of main bronchial mucosa	5	0	0	0	0

bronchus are occasionally seen in bronchiectasis and suppurative disease of the lung, whereas formerly such findings were considered to be characteristic of carcinoma only (Table 1)

Pathologically, peripheral tumors are usually of the adenocarcinoma type and metastasize by way of the blood stream [7 8] The centrally located tumors usually visible through the bronchoscope are of either the rapidly growing undifferentiated type or the squamous type, which is slow growing and may be present for months or even years before becoming inoperable

The postoperative survival rate of carcinoma of the lung will depend on the extent of the lesion at the time of operation rather than on the type of cell Therefore, the resectability of a tumor cannot be determined by bronchoscopy unless an extension can be noted, indicating inoperability Similarly, biopsy will not provide information as to the extent of the tumor

Formerly, exploration was not performed without confirmation of the presence of a tumor, either by a positive biopsy or by evidence of constriction of the main bronchus, widening of the carina, etc It has now been shown conclusively in a large series of cases of carcinoma of the lung that the operability rate is higher in cases in which the bronchoscopic examination is completely negative than in those cases in which the tumor is visible through the bronchoscope or constriction of the bronchi by the tumor is visible on direct bronchoscopic examination [7] However, with a resectability rate of 36 per cent in cases in which the biopsy was positive through the bronchoscope, this procedure still retains its place as a reliable criterion for pneumonectomy A negative bronchoscopic examination has influenced the surgeon to explore the chest on suggestive x-ray findings in an increasing number of cases, resulting in an increasingly higher rate of resectability than was formerly possible

In conclusion, utilization of the Papanicolaou technic has resulted in an increased number of pre-operative diagnoses in suspected cases of lung carcinoma It must be emphasized, however, that the scope of bronchoscopy is limited by the fact that the operability of a tumor can only very rarely be determined by this method The importance of a negative bronchoscopy should be borne in mind as indicating a favorable case for exploration, thus bringing about a higher rate of resectability of the tumor before metastasis has occurred

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ANTIBIOTIC MISTS YIELD VARIABLE RESULTS AGAINST SINUSITIS

Daily treatment with fine mists of penicillin or streptomycin apparently gives most sinusitis patients no more relief than do other treatments which doctors have been using against the disease for years, according to three New York doctors Writing in the March 19 issue of the *Journal of the American Medical Association*, the doctors—Eduardo R Pons, Jr, Walter M Glass, and Bettina Garthwaite, of the Departments of Medicine and Otolaryngology of the College of Physicians and Surgeons, Columbia University, and the Presbyterian Hospital—say "In the ordinary case of chronic purulent sinusitis, antibiotic aerosol therapy given once daily appears to have no superiority over accepted methods of treatment of sinusitis"

Antibiotic aerosols appear to be extremely useful in treating patients with longstanding chronic sinusitis who have had repeated sinus irrigations or extensive surgical treatment with poor response, patients who do not tolerate sinus irrigations, and patients who have chronic bronchopulmonary disease as well as sinusitis, they say The doctors treated 23 patients with penicillin aerosol, 23 patients with ephedrine, a drug that contracts the mucous membranes and has been widely used for sinusitis, and 10 patients with streptomycin aerosol All of these patients had had sinusitis continuously for six months, and the average duration of the disease in all except those treated with streptomycin was 11 years. Treatments were given once daily, six days a week, and were continued up to four weeks Relief from sinusitis was about the same in penicillin-treated patients as in ephedrine-treated patients, among comparable cases

PLEURAL COMPLICATIONS OF STAPHYLOCOCCUS PNEUMONIA

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(From the Second Surgical Service, Methodist Hospital)

IN 1946 Blumenthal and Neuhof published an excellent report on staphylococcus pneumonia in infancy and childhood [1] They recorded the fact that the disease had been considered a rare entity invariably accompanied by a very high mortality The authors noted that with the advent of sulfonamide and penicillin therapy, the course of this type of pneumonia had been considerably altered They stressed the usefulness of surgery in treating certain complications of the disease, particularly empyema and tension pneumothorax

Recently two cases of staphylococcus pneumonia with surgical complications have been treated by the Second Surgical Service of the Methodist Hospital The reports follow

Case Reports

Case 1 —C E , a fourteen-month-old, white, male infant, was admitted to the Methodist Hospital on February 2, 1948, having been ill for twenty-four hours with a cough and fever X-ray of the chest revealed a right lower lobar pneumonia The child was placed on penicillin, 50,000 units every three hours, and sulfadiazine, 5 grains every four hours In spite of this therapy, his temperature spiked to 104 F daily, and his respirations remained very rapid. X-ray, five days after admission, revealed a right hydropneumothorax. The next day a thoracentesis was performed, 15 cc of pus evacuated from the right pleural cavity, and 100,000 units of penicillin introduced into the cavity A pure culture of Staphylococcus aureus was grown from the pus evacuated from the right pleural cavity

On February 8, six days after admission, the child was worse, and an oxygen tent was ordered Chest x-ray the following day revealed increasing right pneumothorax with considerable shift of the mediastinum to the left The next day the child was obviously critically ill. His temperature was 103 4 F , his respirations were rapid and labored, and he was cyanotic, even in an oxygen tent

Accordingly, eight days after admission, a closed thoracotomy with underwater drainage was done under local anesthesia with 2 per cent procaine A Number 22 Pezzar catheter was inserted through the right eighth intercostal space Upon releasing the catheter there was an immediate gush of air, indicating considerable positive pressure in the right pleural cavity The catheter was aspirated, and about 150 cc of thick yellow pus evacuated. At the completion of the procedure the response was dramatic, the child's respirations immediately becoming much slower and less labored

After establishing the closed thoracotomy, the child continued to receive penicillin and sulfadiazine, and further, 50,000 units of penicillin were inserted into the pleural cavity twice daily The child gradually improved

Four days after establishing the thoracotomy, 2 cc of methylene blue were introduced into the right pleural cavity through the thoracotomy tube The next day the child's lips were stained blue, proving the existence of a bronchopleural fistula

Sixteen days after the institution of closed drainage, the child pulled the Pezzar catheter out of his chest At this time re-expansion of the right lung was not complete, and there was x-ray evidence of pneumonic infiltration of the right middle and lower lobes Nevertheless, re-expansion and resolution continued, and the child was discharged as recovered on March 12, 1948, after a hospital stay of forty-one days

Case 2 —C A , a twenty-seven-day-old, white, female infant, was admitted to the Methodist Hospital on April 11, 1948, with a twenty-four hour history of fever, anorexia, and rapid, labored respirations X-ray study showed a massive left pleural effusion The child was critically ill She was placed in an oxygen tent and given 30,000 units of penicillin every three hours intramuscularly, and 2 grains of sulfadiazine every four hours by mouth

The next day a thoracentesis was performed and 5 cc of pus evacuated A pure culture of hemolytic S aureus was grown from the pus.

On the following day x-ray revealed a left pneumothorax, with marked shift of the mediastinum to the right Surgical consultation recommended a closed thoracotomy, if a bronchopleural fistula were present Two cubic centimeters of sterile methylene blue were inserted into the left pleural cavity, and the next day the blue color appeared on the baby's lips

Three days after the baby's admission, a left closed thoracotomy was performed under local anesthesia The procedure was done on the ward with the baby in an atmosphere of oxygen, because her general condition was so poor that removal to the operating room would have endangered her life

A Number 12 French catheter was inserted through the left seventh interspace, and 30 cc of thick, bluish (methylene blue) pus were evacuated under considerable positive pressure

Closed thoracotomy was followed by improvement in this baby's general condition, although the response was not nearly so dramatic as in the previous case Sulfadiazine and penicillin were continued, and 50,000 units of penicillin in 10 cc of sterile distilled water were inserted through the thoracotomy tube twice daily

X-ray taken on the fifth day after admission showed some re-expansion of the left lung and also pneumonic infiltration of the right upper lobe There was gradual resolution of the pneumonic process and re-expansion of the left lung Ten days after insertion, the catheter was removed, since

joint One patient received an additional 25-mg pellet six months after the first implantation

Technic of administration was as follows Under local anesthetic and under strict asepsis, a 1/4-inch incision was made in the skin over the medial aspect of the upper third of the thigh, and with a curved Kelly forceps a subcutaneous tunnel above the fascia lata was created by blunt dissection, the forceps being pointed upward The blades of the forceps were spread and the pellet grasped with the tips and inserted into the subcutaneous tissue, being pushed to the high point in the subcutaneous tunnel Incision was closed by one skin clip No tissue reaction at the site of the implantation was noted in any case

Careful follow-up of each of these 11 cases showed that all were promptly relieved of their menopausal symptoms This relief was not for only a few days, as that from parenteral and oral therapy, but from six to eleven months In one patient excessive menstrual bleeding was not relieved However, at hysterectomy submucous and intramural fibroids were revealed In this patient, as in all the others, subjective symptoms were greatly relieved by estradiol pellet implantation No evidence of malignancy has been noted in any case

Table I compares the symptomatology of this series of 11 cases with that of Hawkinson's series of 1,000 cases, showing the percentage and number of patients in whom the 18 symptoms listed by Hawkinson appear [11]

TABLE 1 —Comparison of Symptomatology of Present Series with Hawkinson's Series

Symptoms	Number of Patients Showing Each Symptom	Present Series (Per centage)	Hawkins (Per centag
Nervousness	11	100	98 0
Menstrual disturbances	10	91	95 5
Flushes and chills	10	91	95 2
Excitability	7	63	88 4
Fatigability and lassitude	8	72	83 0
Depression and crying	4	36	81 6
Irritability	9	81	79 2
Insomnia	11	100	72 3
Tachycardia palpitation dyspnea	8	72	71 3
Vertigo scotomas	11	100	63 3
Decreased memory and concentration	6	54	63 0
Headaches	9	81	62 2
Frigidity	8	72	47 8
Numbness and tingling	7	63	44 7
Occipitocervical aching	11	100	40 3
Vague and indefinite pains	8	72	38 5
Excessive sweating	6	54	32 0
Formication	6	54	30 7

Summary

1 In 11 cases of menopause, estradiol pellet implantation therapy brought prompt relief from all symptoms for periods of six to eleven months

2 Frequency of incidence of symptoms is tabulated

3 Estradiol pellet implantation therapy most nearly approximates physiologic, endogenous estrogen production

4 Estradiol pellet implantation most nearly approaches ideal estrogen therapy, particularly in its economy of hormone material and in conserving the time of the physician and patient

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FINDS MONGOLISM TO BE A GROWTH DEFICIENCY

Mongolism, a type of idiocy present at birth apparently is not inherited, concludes Clemens E Benda, M D , of Waverly, Massachusetts, who has studied 389 cases Mongolism takes the largest toll of all abnormal prenatal conditions among the normal population of the United States About three out of every thousand children born in a general lying-in hospital in this country are affected Mongoloid babies are especially lively and imitative and have characteristic slanting eyes, flattened skull, and short thumbs and little fingers

Dr Benda believes mongolism is a "decelerating growth deficiency" that occurs during the early part of pregnancy and is caused by an abnormal maternal condition at this time Any normal mother is potentially the mother of a mongoloid baby if she is approaching middle age or carries [illegible] under certain adverse conditions, he points out One mongoloid child may be expected among 8,000 births if the mother is between 20 and 24 years of age, but the incidence increases to 12 5 per cent if the mother is between 45 and 47 years, according to Dr Benda A high percentage of the mothers of mongoloid babies appeared to have endocrine disorders, especially thyroid disorders In the younger age group—21 to 40 years—nearly 39 per cent had thyroid glands that did not function normally

Supporting the belief that mongolism is not due to heredity, Dr Benda found that mothers who had a mongoloid child after the age of 41 were "average to superior citizens" and that nearly all brothers and sisters of mongoloid children were normal Many of the brothers and sisters were honor students in schools and universities

—*J.A.M A , April 9, 1949*

TREATMENT OF ITCHING DERMATOSES WITH AN OINTMENT CONTAINING TWO PER CENT DIPHENHYDRAMINE (BENADRYL HYDROCHLORIDE)

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THAT Benadryl is a highly effective antihistamine agent has been well established [1-10] The adaption of this activity for the control of itching dermatoses was attempted successfully in a variety of ointment bases shortly after its synthesis [11] It was felt that the effectiveness of this material would be enhanced by a more suitable ointment base *

Methods and Materials

One hundred unselected consecutive cases of various itching dermatoses that applied for treatment in private and clinic practice were included in the present investigation (Table 1) Every fourth case was used as a control (Table 2)

There were 59 women and 41 men ranging in age from six months to seventy-two years

All of these patients had had previous medication, the duration of the previous treatment depending on how long the itching had been present Their previous treatment had consisted of many types of locally applied drugs, ranging from the innocuous type, such as calamine lotion or boric acid ointment, to severe dermatologic irritants, especially of the proprietary type, containing salicylic acid in high concentrations and benzoic acid Fourteen of the cases showed lesions that were secondarily infected, and these were treated with wet dressings until the impetiginized areas were clear and the basic dermatoses could be determined After the secondary infection was cleared, they were then included in the groups for treatment with Benadryl

The cases were all treated in the same manner Soap and water were banned and mineral oil was used for cleansing the skin The ointment was rubbed into the affected areas twice daily, but, where itching recurred, the use of the ointment was permitted as often as the patient desired

The 15 cases, used as controls, were treated in similar fashion except that the ointment employed contained no Benadryl—it was made up of Carbowax 1500 with 10 per cent propylene glycol The members of this group were not aware that they were being treated with a placebo

As many of these itching dermatoses were due to topically applied drugs, and as some were induced or aggravated by drugs taken internally all medication other than the Benadryl ointment, was barred

In recording our results, cases that obtained relief estimated at 50 per cent or more were listed as "partial relief", those obtaining less than 50 per cent relief, or where the relief was temporary, were listed as "no relief "

Results

The results in Group 1 (Benadryl ointment group) ranged from no effect to excellent (Table 1)

In the series of neurodermatidides, three patients relapsed when the ointment was discontinued after cure had apparently been established The group of controls of neurodermatitis cases showed some partial, but very temporary, relief of itching All symptoms returned within a week after the ointment was discontinued

In the group with atopic eczema (infantile eczema), cure was complete and permanent in four cases within two months In four that showed incomplete but definite improvement, there was a tendency for the condition to recur when the ointment was discontinued No attempts were made to alter the diets of any of the children treated There was no effect in the control series

The group of contact dermatidides, totaling 19 cases, showed the best results of any of the dermatoses treated Eighteen of the 19 cases were due to various cosmetics, one was due to penicillin ointment There were seven cases of dermatitis caused by nail polish, five caused by hair shampoo, two cases due to tooth paste, and five due to unknown cosmetics

Thirteen of the 15 cases of contact dermatoses treated with Benadryl ointment showed immediate relief of the itching and objective symptoms (redness, local heat, scaling, and fissuring), and this relief continued during the course of treatment, which did not exceed two weeks

* The ointment used in this study was supplied through the courtesy of Dr E A. Sharp director of clinical investigation, Parke, Davis and Company Detroit Michigan. It is called Benadryl Hydrochloride cream and has the following composition cetyl alcohol 20 0 Gm. Carbowax 1500 4 0 Gm. methyl hydroxyl benzoate 0.2 Gm. propylene glycol 10 0Gm. Benadryl hydrochloride 2 0Gm and water 63 8Gm

drainage had ceased and the catheter did not appear to be functioning

A left thoracentesis was performed on the twenty-fourth hospital day, and a small amount of purulent fluid obtained Culture of this showed S aureus X-ray taken on the twenty-ninth hospital day showed some pyopneumothorax in the region of the left base

At this time the pediatric and surgical services considered the advisability of performing open thoracotomy, with resection of a rib However, the child looked well, was afebrile, and had gained considerable weight In view of these facts the baby was discharged, and her progress will be followed in the outpatient department This baby was in the hospital for a total of thirty-one days

Discussion

When we saw the first baby described above, it was obvious that the child was *in extremis* and that death would result if the child's respiratory embarrassment were not relieved quickly Therefore, the thoracotomy was done as an emergency procedure When we were asked to see the second child described above, we procrastinated before doing the thoracotomy We thought that the procedure should not be done unless there definitely was a bronchopleural fistula present As a result we waited about forty-eight hours after first seeing the child before performing the thoracotomy

Blumenthal and Neuhof stress the fact that pleural complications are common in staphylococcus pneumonia, that they may occur early in the disease, and that they may be the cause of death, even in spite of prompt and adequate treatment It is our purpose in presenting this report to emphasize further the necessity for rapid surgical intervention in the event of pleural complications It is our belief now that surgical intervention should be instituted immediately on demonstrating the presence of pus in the pleural cavity, without waiting to prove the presence of a bronchopleural fistula, which will be present in a large percentage of cases Closed thoracotomy is a simple procedure and can be performed without taxing an infant The presence of empyema or pyopneumothorax, complicating an already present staphylococcus pneumonia, will almost certainly mean the death of the child Prompt surgical drainage and/or release of increased intrapleural pressure may be life-saving

Summary

1 Two case reports of pleural complications of staphylococcus pneumonia are presented

2 The importance of prompt surgical treatment of these pleural complications is emphasized

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LETTER OF NATIONAL PHYSICIANS COMMITTEE

Recently, the New York County Medical Society, with a total membership of nearly 6,000 voted disapproval of the $25 A M A assessment The vote was 333 for and 432 against The action reversed a vote taken by the same group in January At that time, the vote was announced as four-to-one in favor of the assessment *

In reporting the meeting, the New York *Times* said

"Resentment was felt against the A M A by some members of the New York County Medical Society because of a letter circulated to the medical profession recently by the National Physicians Committee, the lobbying organization of the A.M A The letter opened with the greeting 'Dear Christian American' There was said to be no doubt that this letter, by raising the issue of discrimination, had alienated some Jewish as well as non-Jewish physicians

"At least one group in the county society felt that the vote was auspicious because it was said to indicate the existence of a large group of independently thinking physicians who could neither go along with the 'right,' as represented by the A M A , nor completely with the 'left' This group thought the vote moved the society somewhat more nearly to the center"

The "Dear Christian" letter to which the *Times* referred was written by Dan Gilbert Again we must reiterate that the A M A had nothing to do with the preparation or distribution of the Dan Gilbert letter The February 26 A.M A JOURNAL said "the Gilbert letter was sent without the knowledge of any official of the A M A , that every official of the A.M A joins in condemning the letter as an expression of medical opinion in this country and that the A M A does not require allies of doubtful repute in its campaign for the maintenance of a high quality of medical care and for freedom in medicine in this country"—*Secretary's Letter, A M A , March 14, 1949*

* A final overwhelming vote in favor of the assessment was adopted at a later meeting attended by approximately 2 000 members

TABLE 2.—EFFECT OF CONTROL OINTMENT UPON VARIOUS ITCHING DERMATOSES

Diagnosis	Number of Cases	Duration of Disease	Results*	
			Partial Relief	No Relief
Neurodermatitis	3	Up to 6 years	1	2
Atopic eczema	2	Up to 6 years	0	2
Contact dermatitis	4	1 day to 10 days	4	0
Lichen planus	1	6 months	0	1
Drug eruption	1	2 months	1	0
Post scabies	1	6 weeks	0	1
Urticaria, chronic	1	4 months	0	1
Poison ivy dermatitis	2	2 days 3 days	1	1

* None of the patients obtained complete relief when using the control ointment

ing, as all weeping and itching disappeared within thirty-six hours. Three cases in this group had considerable relief, but the symptoms persisted for eight days.

There were two cases of poison ivy dermatitis used as controls—of these one was apparently not affected by the ointment, the other showed slow improvement over a period of one week.

Four cases of pruritis ani and one case of pruritus vulvi, all of undetermined cause, were treated. Four of these obtained complete relief as long as Benadryl was used but relapsed when the ointment was discontinued, in one, the relief was permanent.

Five cases of guttate psoriasis showed no effect from the use of the ointment, two cases of pityriasis rosea showed some improvement, but this effect could be accounted for by the natural and spontaneous subsidence of this disease.

One case of seborrheic dermatitis, one of herpes zoster, two of generalized pruritis due to jaundice, and two cases of acne vulgaris were treated without great effect.

Discussion

Benadryl ointment has definite indications in the control of various itching dermatoses. Its greatest use apparently lies in that group of dermatoses where an allergic-like histamine liberation plays the greatest part. This effect would be expected from the response of most of the allergic diseases to the antihistamine drugs taken by mouth or intravenously. Neurodermatitis, atopic eczema, contact dermatitis, and rhus poisoning were very successfully treated with the Benadryl ointment, and, as adequate controls in this group of diseases were not appreciably helped, the curative effect can be ascribed to the Benadryl itself. This is true on both theoretic and clinical grounds.

It will be noted from a comparison of Tables 1 and 2 that there are certain self-limited dermatoses that were aided by both the Benadryl ointment and the control ointment, and, unquestionably, time was a factor in the cure of these conditions. Contact dermatitis of all types, including poison ivy dermatitis, would fall into this group. Inasmuch as the response to the ointment containing Benadryl was more complete, much more rapid, and of much greater duration, there is no question but that the Benadryl itself was the specific agent that produced the result.

No instances of the commonly observed signs of Benadryl intoxication, such as drowsiness, nausea, vertigo, etc., were seen, suggesting that the effect of the Benadryl was local rather than systemic. No irritation or sensitivity to the ointment itself was found in either the Benadryl group or in the control group, so that no contraindications to the use of this ointment were encountered.

Summary and Conclusions

Eighty-five cases of various itching dermatoses, constituting 24 different diseases, were treated with a specially prepared ointment containing 2 per cent Benadryl. Of these, 44 (51.8 per cent) obtained complete and lasting relief, 18 (21.1 per cent) obtained partial relief, and 23 (27.1 per cent) had little or no relief. The high incidence of cure in certain groups of dermatoses, particularly neurodermatitis (84.8 per cent) and contact dermatitis (86.7 per cent), makes very definite the indications for the use of this ointment. No contraindications were noted.

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TABLE 1.—EFFECT OF BENADRYL HYDROCHLORIDE UPON VARIOUS ITCHING DERMATOSES

Diagnosis	Number of Cases	Duration of Disease	Results	
			Complete Relief	Partial Relief
Neurodermatitis	13	6 months to 10 years	11	1
Atopic eczema	10	Up to 4 years	4	4
Contact dermatitis	15	1 day to 2 weeks	13	1
Dermatitis herpetiformis	2	4 years, 8 years	0	1
Lichen planus	2	6 months 11 months	0	0
Drug eruption	2	3 months 4 months	0	1
Post scabies	1	2 months	1	0
Exfoliative dermatitis (gold)	2	6 months 1 year	2	0
Chilblain	1	10 years	1	0
Exfoliative dermatitis (contact)	2	2 months 4 months	0	1
Acrodermatitis pustulosa perstans	1	3 years	0	0
Urticaria acute	1	2 days	1	0
Urticaria chronic	1	4 years	1	0
Soap dermatitis	2	6 months 2 years	0	0
Dermatophytosis	1	4 years	0	0
Poison ivy dermatitis	11	2 days to 2 weeks	8	3
Pruritis ani	4	3 months to 12 years	1	0
Pruritis vulvi	1	7 months	0	0
Pityriasis rosea	2	5 days 12 days	0	0
Psoriasis	5	6 months to 24 years	0	1
Seborrheic dermatitis	1	4 months	0	1
Herpes zoster	1	3 weeks	0	1
Generalized pruritis	2	6 months 14 months	1	1
Acne vulgaris	2	8 months 15 months	0	2

At the end of this time 13 patients were discharged as cured, and there were no recurrences Of the remaining two, one was partially relieved, the other was not helped

Of the four cases of contact dermatitis in which the control ointment was used, none experienced more than fleeting relief, and at the end of three weeks, all still showed some irritation from the original noxious agent Fourteen cases in this entire group of contact irritation showed positive patch tests to the offending materials

Two cases of dermatitis herpetiformis were treated One obtained no relief, the other stated that she had some benefit as long as the ointment was continued At the end of three months, however, relief from itching, even in this one case, had to be sought in other ways

Three cases of drug eruption were treated, two due to phenobarbital and one due to atropine The relief secured by the use of Benadryl ointment was incomplete and temporary, and approximately the same amount of cessation of symptoms was obtained in the patient that was treated with the control ointment

Two cases of severe itching following apparent cure of scabies were encountered The pruritis had been present for two months, although there were no signs of scabies or dermatitis due to the sulfur ointment which had been used in its treatment After the first application of Benadryl ointment, relief was complete and lasted for one week. Benadryl was then stopped and the control employed The pruritis promptly recurred to disappear again with the use of the Benadryl ointment Ten days of further treatment cured the condition permanently

Two cases of exfoliative dermatitis, caused by gold sodium thiosulfate given intravenously for rheumatoid arthritis, cleared up with weeks on the use of Benadryl ointme crude liver extract injections, althou patient had received about 30 liver in prior to the institution of treatment wi adryl

On the assumption that some of the sy of chilblain are due to liberation of hi one such case was treated during the of January, when the symptoms were height Relief was immediate and throughout the following cold months, ev the ointment was discontinued As th seasonal disease, no further attempts at r the acute symptoms can be made unt winter

One case of generalized exfoliative der probably due to contact with 10 per ce monated mercury, was not helped nor v case of acrodermatitis pustulosa perstans lar psoriasis)

One case of generalized urticaria due ingestion of shrimp was relieved imme following the application of Benadryl oin A second episode, produced by a test c shrimp, was not relieved by the contro ment, but was again promptly cured b Benadryl ointment

During seven days of treatment with Be ointment, generalized chronic urticaria, p in one patient for several years, disappeare has not recurred in eight months of observat

Two cases of dermatitis of the hands c soap and one case of dermatophytosis of th obtained no relief that could not be ascrib the discontinuance of soap and water on the

Eleven cases of poison ivy dermatitis treated In eight cases the results were gr

the catastrophe lulled the examiner into a false sense of security

The dissection occurred in two stages the initial episode of choking and dyspnea represented the incomplete rupture of the aortic intima, and the final episode was the actual dissection of the aortic media This is clearly evidenced by the sudden appearance of an aortic diastolic murmur with its concomitant peripheral phenomenon in a patient who had never had any detectable cardiac abnormalities The addition of an absent pulse in the right femoral artery is evidence that the dissection traveled the length of the aorta as far as the common iliac branches The suddenness of death was due to a rupture of the aorta through the adventitial coat, probably in the abdominal portion

Case 2 —This patient was a forty-six-year-old housewife who was first seen in May, 1945, for headaches, flushes and flashes, irregular menses, and swelling of the ankles These symptoms had been present for six months The pertinent physical findings were obesity (weight 226 pounds) and a blood pressure of 200/130 The heart was normal The impression was that of a menopausal syndrome and essential hypertension The patient was placed on oral estrogenic therapy, a 1,000-calorie diet, and small doses of thyroid were prescribed Dietary restriction was supplemented with vitamin therapy On September 11, 1945, the patient weighed 207 pounds, and the blood pressure was 160/115 Cardiologic examination at this time was normal On September 15, 1945, the patient was attending a block party for a returned veteran, friend of her late son, killed in the war During the festivities, she was seized by a sudden, severe pain in the upper sternal region and lost consciousness She was immediately seen by another physician who stated that the blood pressure was 100/95 and that the patient was in a semiconscious state but did react to painful stimuli This state of semiconsciousness lasted for about twelve hours When seen on September 16, the patient was alert and had no recollection of the events of the preceding twelve hours The blood pressure at this time was 190/115, the heart sounds regular and pure, and an electrocardiogram taken then was normal (Fig 1A) The patient had a low grade temperature The examiner thought that the patient had had a coronary occlusion, but repeated electrocardiograms revealed no evidence of a myocardial infarction (Fig 1) On September 27, 1945, twelve days after the acute episode, a faint diastolic murmur was detected over the aortic area The patient ran a low-grade temperature, and with the appearance of a murmur an endocarditis was suspected. Repeated blood cultures were negative, and other laboratory procedures were normal except for a moderate leukocytosis On October 19, five weeks after the acute onset, the electrocardiogram showed evidence of beginning left ventricular strain The patient complained of a constant dull pain in the upper sternal and interscapular areas The diastolic murmur became more prominent and was accompanied by a very rough aortic systolic murmur The second aortic sound became palpable This latter fact and increasing evidence of an

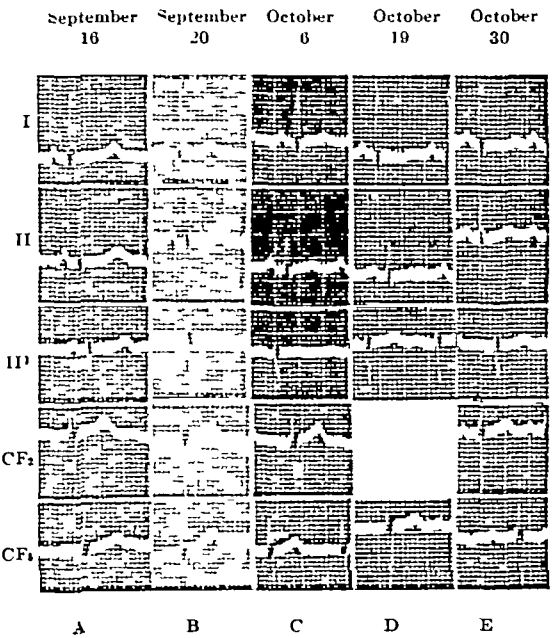


FIG 1 The electrocardiograms taken on September 16 and 20 are within normal limits Fig 1C shows a decrease in the height of the T waves, indicating a beginning myocardial strain In Fig 1D, the T waves in lead I have become inverted, and in Fig 1E the T's in lead CF4 are inverted This is the pattern of a left ventricular strain There is no evidence in the series of tracings of a coronary occlusion

aortic insufficiency raised the question of a leutic aortitis and leutic aortic insufficiency She was hospitalized on February 20, 1946, and penicillin therapy instituted, using a schedule advised in syphilitic cardiovascular disease There was neither laboratory, clinical, nor historical evidence for a luetic infection X-ray and fluoroscopic examinations at this time revealed a markedly widened and dilated aortic arch and an enlarged heart with an aortic configuration

The patient was discharged on March 20, unimproved except for a subsidence of the temperature She was seen once monthly in the following two years and during these examinations, the blood pressure persisted around 190/110 During this period, there were short intervals of pain in the upper chest and back and limited bouts of low grade temperature

Comment —The acute episode of substernal pain, fall in blood pressure, and shocklike condition simulated an acute myocardial infarction, but no evidence was forthcoming to substantiate this impression The appearance of a diastolic murmur over the aortic area is certainly unknown in an acute coronary occlusion although a diastolic murmur just above the apex may occur in a left ventricular aneurysm secondary to an infarction

The appearance of a diastolic aortic murmur and the palpability of the second aortic sound is accepted prima facie evidence that a luetic process

DISSECTING AORTIC ANEURYSMS

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ALTHOUGH the dissecting aneurysm of the aorta is no longer the medical curiosity it was in the past, it is still sufficiently unusual and at times so protean in its manifestations as to make the antemortem diagnosis a difficult one It is estimated that one out of 381 autopsies reveals a dissecting aneurysm of the aorta, but until 1946 the antemortem diagnosis had been made correctly in only 57 instances of the 502 cases reported [1 2] Even more important, the lack of awareness of that stage of dissecting aneurysm which may exist before physical signs have developed or before dissection has actually occurred may lull the physician into a false sense of security and a favorable prognosis offered Nothing can be more disconcerting to the physician than to tell the family that a serious condition does not exist and then have the patient die suddenly

It is the purpose of this paper to review briefly the more important causes and diagnostic criteria and to report two cases of dissecting aortic aneurysms which, when first seen, offered difficulty in diagnosis It is realized that without autopsy confirmation some doubt may be expressed concerning the author's conclusions, but it is felt that the development of the clinical picture in each case justified the conclusions

Case Reports

Case 1 —The patient, a forty-year-old woman was first seen in December, 1941, for "migraine headaches" which had begun eight years previously These headaches were left hemicranial, of excruciating character, and appeared a few days before the menstrual period The attacks were not relieved by the usual analgesic drugs, and during this eight-year period a variety of treatments were ineffectual The patient was a very severe psychoneurotic who completely dominated her family Physical examination disclosed nothing more than a slight degree of myopia and a deviated nasal septum

A therapeutic test with ergotamine tartrate (0 5 mg subcutaneously) administered during an attack brought instant relief and established the diagnosis of migraine The patient was taught to self-administer the drug subcutaneously In the ensuing years, the migrainous attacks became more frequent (once weekly) so that ergotamine tartrate was used often During these years she was seen for various functional complaints, and examination always revealed her to be in good physical health She was seen on February 18, 1946, because of pain in the left shoulder with radiation into the forearm Examination was again normal A diagnosis of brachial neuritis was made, and the patient responded to symptomatic treatment

On February 26, 1946, the patient was seen at home and gave the following story At 8 00 A M , while looking out of the window, she was seized with a choking sensation in the throat and for a few moments had some difficulty in breathing The choking lasted for about five minutes Examination at this time was absolutely normal, and the patient did not appear ill The blood pressure was 120/75 Because of the history, an electrocardiogram was taken but found to be normal It was thought that the patient's complaints stemmed from a psychoneurotic basis However, she was put to bed with the absolute assurance that a serious condition did not exist The attack was classified as a "globus hystericus "

Because of no further complaints, she was allowed out of bed two days later That afternoon at 2 00 P M , while standing over the stove, she was again seized with a choking sensation similar to the initial attack Re-examination at this time was again normal The blood pressure was 120/75, the pulse was normal, heart sounds pure, and a repeated electrocardiogram showed no abnormalities The patient was put to bed and again reassured as to the nonseriousness of the symptoms At 9 00 P M she complained of excruciating pain in the lower back which radiated around both sides into the abdomen and of numbness and tingling in the right lower limb Examination now revealed a complete change in the findings The blood pressure which had been 120/75 was now 145/40 A diastolic murmur was heard over the aortic area, and this was transmitted down the left sternal border The abdomen was soft and revealed no evidence of an intra-abdominal condition The right lower extremity was colder than the left, although not discolored, and there were absent pulsations in the entire course of the femoral artery For the first time, it was realized that the patient had a serious vascular condition, and the family was told of the critical nature of the disease Morphine sulfate was administered, but the patient complained of severe pain in the back and abdomen throughout the night At 10 00 A.M the next day, the patient asked for the bedpan, and as her husband approached, she emitted a shriek and died

Comment —This is a case of a young woman who developed a dissecting aneurysm of the aorta in the absence of associated hypertension which is present in 78 per cent of the cases reported Although a medial cystic necrosis is accepted as the basic pathologic condition necessary for a nontraumatic dissection to occur, the vast majority of the cases occur in known hypertensives The classification of this patient as a psychoneurotic and the absence of physical evidence for three days before

A dissecting aneurysm often materializes in two stages, as is well illustrated in the first case report [6] The first stage is the stage of symptoms and is due to the incomplete rupture of the aorta without dissection. (It is now agreed that the intimal rupture takes place from without inward, i e, from the medial coat through the intima) The symptoms consist of a choking sensation, as was present in the first case, fainting due to irritation of the aortic depressor nerves, as was present in the second case, sudden dyspnea, stabbing or tearing substernal pain, cough, hemoptysis, and fever The blood pressure may be high or low in this stage but is more often high.

The second stage of dissection may not occur for days or even not at all The incomplete rupture of the aorta is more common than the dissection and is often mistaken for a coronary occlusion because of the electrocardiographic changes suggestive of myocardial infarction.[21] Autopsy often disclosed no involvement of the coronary vessels [21] Luetic aortic insufficiency and rupture of the aortic valves enter in the diagnosis because of the development of systolic and diastolic aortic murmurs [3] The sudden appearance of an aortic insufficiency in a known hypertensive is indicative of an aortic tear [20] This is clearly demonstrated in the second case where an aortic diastolic murmur suddenly developed, shortly after the initial dramatic episode

If the second stage of dissection does not occur, the clinical picture will be that of an aortic insufficiency with congestive heart failure which is exemplified in the second case [3 20] This patient never went beyond the first stage of incomplete rupture of the aorta In the stage of dissection the signs and symptoms will depend upon the extent and direction of the dissection. Any of the aortic branches may become occluded with the development of a sudden hemiplegia, paraplegia, pain radiating into the abdomen or extremities, paresthesias, cyanosis of the face due to venous obstruction, and marked throbbing in the neck Sudden death is caused by rupture of the dissecting blood column through the adventitial coat into the mediastinum, pleural cavity, or abdomen, or from cardiac tamponade

Nissim recently has described a new sign which is suggestive diagnostically [2] It is a unilateral reduplication of the carotid artery pulsation due to a difference of the rate of propagation of the pulse wave through the artery and through its dissected coats where the blood is partially clotted

Loque considered a brut and thrill over the femoral artery diagnostic, and Roesler *et al.* a rapidly shifting area of pulsation in the interscapular area over which the second aortic sound was markedly accentuated [22, 3] Shennan suggested that a delay in the conduction of the pulse beat was diagnostic [4]

At times x-ray demonstration of the dissection is possible with the finding of a deformity of the supracardiac shadow or a shadow along the innominate artery due to dissection along this vessel Displacement of the esophagus and trachea to the right may occur [24]

The first case clearly demonstrates the two stages of dissecting aortic aneurysm. The first stage of symptoms, consisting of a choking sensation and temporary dyspnea without any physical signs, represented the stage of incomplete rupture of the aorta, and the second stage of dissection was indicated by excruciating pain in the lower back and abdomen, sudden appearance of an aortic diastolic murmur, peripheral changes characteristic of an aortic valvular insufficiency, acute occlusion of the right femoral artery, and sudden death due to external rupture of the aorta either intra-abdominally or intrapericardially

Mechanism for the Development of the Murmurs

The systolic murmur is due to the vibrations, caused by the blood stream, of the edges of the intimal tear [20] The intimal rupture almost always occurs in the ascending portion of the aortic arch, a few centimeters above the aortic cusps The aorta is anchored at this point by the thick bands of pericardium passing between the pulmonary artery and aorta and by the ductus arteriosus, giving rise to a fixed area The abrupt diastolic recoil when the aortic valves are closed converts the longitudinal force into a transverse one and a lateral stretching of the intrapericardial part of the aorta occurs [4]

At one time it was believed that the aortic diastolic murmur and peripheral phenomenon of aortic insufficiency were caused by the regurgitation of the blood into the aneurysmal sac [25] However, aortic diastolic murmurs may be present in cases showing no intimal tear, and here they are due to the disturbance of the aortic valve closure because of the medial hematoma near the commissures [26] If the intimal tears are transverse to the axis and near the valve commissures, these commissures loosen, and the corresponding cusp hangs at a lower level in the aortic ring than the unaffected one, giving rise to imperfect closure of the cusps and an aortic valvular insufficiency [20]

Prognosis

There is a general impression that dissecting aortic aneurysms are invariably and immediately fatal Shennan recorded survival for more than one year in 16 out of 300 cases [4] If the patient survives five weeks, a re-entry phenomenon has

is responsible for these findings However, no evidence for syphilis could be discovered Although the Wassermann and Kahn tests are negative in 30 per cent of the cases that show luetic aortitis at autopsy, it is estimated that in the presence of an aortic insufficiency these tests should be positive in at least 95 per cent of the necropsied cases if no recent antiluetic therapy had been received [3] Gouley and Anderson recently reported six cases of cardiac decompensation which were diagnosed as luetic aortic insufficiency because of the presence of diastolic and systolic murmurs over the aortic area [3] Two of the cases had a positive Wassermann Autopsy disclosed a chronic dissecting aneurysm of the aorta in each case, and not one case, even those with a positive Wassermann, showed any microscopic evidence of a luetic aortitis or luetic aortic insufficiency Four of the cases had double-barreled aortas which accounted for the longevity after the dissection

Pathology and Etiology

There is agreement that the basic pathology in nontraumatic dissecting aneurysms of the aorta is a cystic necrosis involving the middle and inner thirds of the medial coat [4] Erdheim considered the process to be an unusual accumulation of mucoid in the interlamellar spaces which caused at first a thinning and then dissolution of the lamellae with a confluence of the adjacent spaces to form large pools [5 6] Cellina, on the other hand, interpreted the formation of the cysts as due to a primary injury of the elastic lamella with a thinning, disintegration, and disappearance of this lamella [7]

There is, however, *no agreement as to the* causes or precipitating factors responsible for the cystic degeneration of the aortic media Changes in the vasa vasorum of the aorta have been advanced as possible causes by many investigators and denied by others [5 6 8–12] *The abnormalities* of the vasa vasorum may consist of an obliterative or degenerative process with rupture and a consequent medial hematoma [11] Pappenheimer and Van Glahn found that many cases of rheumatic fever showed changes in the aortic media which they interpreted as due to an interference of the blood supply [14] Adrenalin has been indicted because of its threefold action increasing the blood pressure,* because it is a muscle poison, and most important by causing an anemic necrosis through its action on the vasa vasorum.[15] Weisel found a medial degeneration in the peripheral vessels of patients dying of variform infectious diseases and concluded that medial cystic degeneration of the aorta was likewise caused by infection [16]

Those who favor the anemic c
rupture of the vasa vasorum as
the medial cystic degeneration
cogent fact that many cases of di
aorta occur without any evidence
tear, and the only possible source f
ing column of blood would be a hem
from the vasa vasorum [11]

Added to the potpourri of excitin
been a disturbance in cholesterol
because of the occurrence of dissecti
during pregnancy, lead intoxicati
poisoning, toxins, etc [17] Occasional
through an arteriosclerotic intimal
be the underlying cause, but t
Shennan found only six instances
cases [4] Congenital defects and an
arctation of the aorta, 16 per cent o
velop dissecting aneurysms, hypopl
aorta, Marfan's syndrome) have als
sociated with dissecting aneurysms [18]
never a causative factor because of fu
medial coat in that condition [4]

In the first case reported here, one m
as to the cause for the medial cysti
As the vast majority of cases are assoc
hypertension and hypertension did
during the lifetime of this patient, o
utilize the sudden rise in blood pres
cause for the intimal tear However, th
self-administered, weekly or more o
jections of *ergotamine tartrate for a*
seven years The vasoconstricting a
ergotamine tartrate on the peripheral a
well known *It has recently* been shown
drug *has* the same *effect* on the coron
eries [19] This vasoconstricting property
able to produce an ischemic necrosis of t
vasorum and an interference in the blood
to the medial coat of the ascending arch
aorta The sympathicolytic component o
amine tartrate *may* very well cause, refl
compensatory hyperadrenalinemia wit
added impact of adrenalin on the vasa *vasor*

It is realized that the cause *here is a th*
one, but no other factors or *disease* i
patient's history could be uncovered to ac
for the sudden appearance of a dissectin
eurysm in *a woman* who never had any pre
indication *of a* cardiovascular disturbance

Diagnostic Signs and Symptoms

When an acute *dramatic* picture occurs
known hypertensive with a tearing, excruci
substernal or interscapular pain, sudden oc
sion of a peripheral artery, or a sudden hemiple
the diagnosis of dissecting aortic aneurysm r
not be too difficult However, this sequenc
not manifested in the majority of the ca

* This alone, however, will not cause a dissection of an undiseased aorta since it has been shown in animals and at necropsy that the nonpathologic aorta will withstand pressures of 800 to 1200 mm. of mercury [1]

THE TOXICITY OF SODIUM FLUORIDE IN MAN

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THE recent use of fluoride and other glycolytic inhibitors in the treatment of malignant neoplasia, as well as the relation of fluoride to the problems of dental caries, have made pertinent a re-evaluation of fluoride toxicity [1 2] Most standard textbooks of pharmacology class sodium fluoride as a highly toxic agent, asserting that it produces visceral and capillary damage, as well as hemorrhagic nephritis It is claimed that chronic ingestion leads to impaired growth poor nutrition, enamel defects, and anemia As little as 0 5 Gm is said to have caused fatality in some cases [3] On the other hand there are numerous reports in the literature which would indicate that the continued administration of moderate doses of sodium fluoride to various experimental animals (and human beings) leads to no observable deleterious effects

Woakes treated 20 goiter patients with 10 to 80 mg of sodium fluoride daily for six months to two years without noting any ill effects [4] Schulz hypodermically injected adult rabbits with 10 to 40 mg of sodium fluoride daily for 25 days with no ill effects [5] Gettler and Ellerbrook fed each of two dogs 18 mg and 32 mg of sodium fluoride per Kg body weight, respectively, every day for two weeks, and analysis of the organs at the end of that time revealed no significant accumulation of fluorine in the internal organs [6] Sollmann reported that 8 mg per Kg of sodium fluoride for nine weeks caused no deleterious effect in rats while 15 to 150 mg per Kg caused progressive impairment of growth and food consumption with low mortality and no histologic lesions [7] Leake states that the minimal intravenous lethal dose in rabbits is 87 5 mg of sodium fluoride per Kg [8] De Eds has summarized the work in this field up to the year 1933 [9]

It is the purpose of this paper to report on the apparent lack of toxicity of sodium fluoride as found in a group of more than 70 patients who received relatively large doses over prolonged periods of time

Preliminary experiments on a few rabbits indicated that 34 mg of sodium fluoride per Kg when injected intravenously or intraperitoneally daily for ten days, were without apparent systemic or toxic effects Handler has determined the acute toxic dose for rabbits to be 250 mg per Kg when given intraperitoneally [10] The average daily dose administered to the patients in the work to be reported is 3 4 mg per Kg , i e , one-tenth the apparent safe dose for rabbits and one-seventieth the acute toxic dose for rabbits

Most of the patients in this series were suffering from malignant neoplastic disease and were being treated with the enzyme inhibitors as reported by Black, Kleiner and Bolker [11] The subjects varied from a group of leukemic children of three and a half to six years, to adults, including elderly individuals In the adult group, the average dose was 80 mg of sodium fluoride four times a day while the children s dose varied from 20 to 50 mg four times a day If taken alone sodium fluoride causes gastritis and regurgitation because of the formation of hydrofluoric acid in the stomach If it is given in combination with an amphoteric antacid or as an enteric coated tablet there is minimal gastrointestinal disturbance * † The periods of therapy in most cases were several months, although some of the cases received the medication for shorter periods

No evidence of systemic toxicity or parenchymatous damage which could be attributed to sodium fluoride has been observed, although many of these patients have received more than 27 Gm of sodium fluoride over a period of three months Studies of the following vital functions and criteria revealed no evidence of toxic effect, and in many cases improvement supervened as malignant neoplasia were controlled temporarily growth and development in children, eruption of permanent teeth, hematopoiesis, liver function, albumin-globulin ratio, level of cholesterol and sugar in the blood, and kidney function. In no case was there seen any evidence of mottling of teeth, even though two of the children experienced eruption of teeth during the treatment (permanent teeth in one case and deciduous teeth in the other) Postmortem examination in four cases showed no parenchymatous degeneration that could be attributed to fluoride toxicity

The only systemic effect of the fluoride therapy which has been noted is a tendency to a fall in

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* The amphoteric antacid used was Amphojel (Wyeth) which is a suspension containing the equivalent of 4 per cent aluminum oxide and is free from alkalis and alkali earths

† Kindly furnished by Endo Products, Inc

occurred with re-establishment of the circulation in 90 per cent of the cases This creates a double-barreled aorta Sixty-one of Shennan's cases showed this development Jones and Langley report two cases, one of which survived three years after the dissection and one that is well eight years after the x-ray diagnosis of the aortic lesion [27] Graham *records a survival* thirty years after the acute episode [28] Sailer's statistics indicate that 10 per cent of the cases undergo healing [1]

Summary and Conclusions

1 Two cases of dissecting aneurysms of the aorta are presented and clinical evidence offered to substantiate this conclusion

2 One case is presented as an incomplete rupture of the aorta (first stage), and this opinion is based upon the acute episode of severe substernal pain, shocklike picture, and sudden appearance of a diastolic murmur The other case is represented by the two stages incomplete rupture of the aorta followed by dissection of the aorta, as evidenced by the development of an aortic diastolic murmur, peripheral evidence of an aortic insufficiency, and the sudden occlusion of the right femoral artery

3 It is suggested that chronic ergotamine tartrate administration is a possible causative factor in the development of medial cystic necrosis in one case

4. If one were to choose the one most diagnostic sign for dissecting aortic aneurysm, the sudden appearance of an aortic diastolic murmur would be the most helpful

97–11 38TH AVENUE

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USE SMEAR TEST TO DIAGNOSE EARLY CANCER

Kidney cancer at a pregrowth stage has been detected by two cell experts using the diagnostic "smear" test for malignancy Writing in the Feb 5 issue of the *Journal of the American Medical Association*, George N Papanicolaou, M D , developer of the smear test, and his coworker, N Chandler Foot, M D , of the Cornell University Medical College Department of Anatomy, New York, say that they were able to identify the disease in a patient before the tiny cancer invaded surrounding tissue

Cancer in this early stage, called cancer *in situ*, often can be eradicated by prompt treatment Because the microscopic tumor is not revealed by x-ray photographs, and because the urinary tract is inaccessible to direct examination, cancer *in situ* of the kidney has been almost impossible to diagnose

Describing the smear test, Dr Papanicolaou says "Cells at the surface of the growth tend to be dislodged A technic for collecting the cellular debris, smearing it upon glass slides, and staining it has been perfected so that various components may be studied" The interpretation of the smear requires the services of a careful and discriminating cell specialist who has had experience in this field, Dr Papanicolaou emphasizes

After the kidney was removed, microscopic examination revealed small areas in which there was unmistakable evidence of cancerous change in the tissue, the physicians say, adding "For good results from surgery in the case of these highly malignant tumors, which have been found to be most refractory to surgical treatment, it is imperative that they be recognized *and removed* before they have become invasive and metastatic In the past this has proved to be almost impossible"

NONSPECIFIC REACTIONS IN SEROLOGIC TESTS FOR SYPHILIS—RELATIONSHIP OF VACCINIA

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REACTIONS in serologic tests for syphilis occasionally occur in diseases other than syphilis. There is no known serologic procedure for differentiating from syphilis the treponemal diseases such as yaws, bejel, and pinta In several of the diseases of the tropics—leprosy, malaria, schistosomiasis, and kala azar, for instance—false reactions frequently occur Of greater importance to physicians in New York State, however, are false reactions in infections of the respiratory tract, exanthematic diseases, infectious mononucleosis, and following smallpox vaccination. The vaccination against smallpox of large numbers of residents in New York State during the spring of 1947 presented an opportunity to study a few cases to determine the frequency of false reactions and the underlying conditions

False reactions following vaccination were first reported in 1940 by Barnard, who cites earlier observations by Giordano, and Moore, Eagle, and Mohr [1,2] Since Barnard's work, there have been several systematic surveys, perhaps the most extensive being that of Rein and Elsberg [3] A variety of tests were employed, including complement fixation and tube and slide precipitation tests Reactions occurred commonly in specimens from patients who had vaccinia or "primary takes," while in those from persons giving vaccinoid responses usually no reaction occurred In the successfully vaccinated cases, reactions occurred in increasing number throughout the first week, reaching a maximum in the second week, with a small number occurring in the third week Usually these reactions disappeared before the end of the fourth month Many were of relatively low titer, although most of the technics employed were qualitative The incidence varied from 14 to 54 per cent, depending on the time and the technic of testing

Little information is available on the influence of the antigen in tests of sera from vaccinated patients Andujar and coworkers and also Kline and his colleagues found that, with the Kline diagnostic precipitation test using cardiolipin antigen, no reactions occurred in eight cases, whereas two doubtful and two positive reactions occurred with the same test using lipoidal antigen [4,5] In the same eight cases, Andujar found one positive reaction in the Kolmer complement fixation test using cardiolipin antigen against three doubtful and two positive reactions using lipoidal antigen

Prior to the mass vaccination in New York in the spring of 1947, the Division of Laboratories and Research had performed its quantitative complement fixation test with specimens from approximately thirty cases of vaccinia [6] No reactions had occurred in these cases There was no evidence, therefore, that vaccination would result in an increasing number of reacting specimens It was not known, however, whether unusual cases would arise that would make interpretation of tests difficult Information was accordingly sought in two series of successfully vaccinated cases

One group consisted of 23 healthy people, members of the laboratory staff Sera were obtained fourteen days following successful vaccination Four tests were used in parallel (1) the New York State quantitative complement fixation test and (2) the quantitative tube precipitation test, both using cardiolipin antigen, were performed at the Central Laboratory under the direction of the originators of the respective methods [7] (3) A tube precipitation test of the same general class as the quantitative precipitation test was performed, using a lipoidal antigen for comparison This lipoidal antigen, long since replaced by cardiolipin, is the same as that used in the Washington Serology Conference of 1941 in the oversensitive preliminary procedure [8] (4) A slide precipitation test, at present under study, employing cardiolipin antigen, was also performed [9]

The results are shown in Table 1 No reactions occurred with the quantitative complement fixation test or with the quantitative tube pre-

TABLE 1.—REACTIONS IN TESTS OF SERA FROM 23 WELL PERSONS

Types of test*	Cardiolipin antigen			Lipoidal antigen
	Quantitative complement fixation	Quantitative tube precipitation	Experimental slide precipitation	Tube precipitation
Number of reactions	0	0	4	5

* All tests were those developed in the New York State Division of Laboratories and Research.[7,10]

Presented at the 142nd Annual Meeting of the Medical Society of the State of New York New York City Section on Public Health, Hygiene and Sanitation May 20 1948.

blood pressure, both systolic and diastolic This finding seems most marked in patients having pre-existent hypertension In view of these observations, fluoride was used in several cases of hypertension The doses employed were the same as in the cancer cases, and treatment was continued for several months The results obtained will not be reported here, except to emphasize the fact that no evidence of toxicity was found

An interesting opportunity to observe any effects on the mucous membranes of the colon was available in two patients who had functioning colostomies On no occasion was there any change in the healthy reddish appearance of the exposed mucosa The disintegration and apparent absorption of the enteric coated capsules was evidenced by the failure to find the capsules in the stool of any of the patients

The absorption of the orally administered fluoride was indicated by the therapeutic response obtained in various malignant neoplastic diseases This was well demonstrated in several cases of acute leukemia, where destruction of the malignant cells could be noted as early as twenty-four to forty-eight hours after starting treatment That this is a fluoride effect was confirmed in a case of acute myeloblastic leukemia which was given an intravenous infusion containing 600 mg of sodium fluoride in a liter of 10 per cent glucose in water The initial white blood count had been stable at approximately 20,000 per cu mm The next day the white blood count was 7,040 per cu mm, while the following day the count was 3,140 per cu mm

The intravenous route has been employed in many instances The following is the record of a typical case The patient was a sixteen-year-old girl suffering from an adrenal carcinoma Her weight was approximately 27 Kg at the time of treatment

In a period of nine days a consecutive total of 5,600 mg was given intravenously (Table 1) This is an average dose of 23 mg per Kg per day, with a maximum dose of 30 mg per Kg There were no signs of acute or chronic toxicity The patient expired two months later from the progression of the neoplasm Permission for autopsy was refused There were no signs or symptoms at any time that could be ascribed to fluoride toxicity

TABLE 1.—INTRAVENOUS ADMINISTRATION OF SODIUM FLUORIDE

Sodium Fluoride (Dose in Mg)	Method of Intravenous Injection	Clinical Effect
400	Infusion 2 L	None
800	2 direct injections (each 400 mg. in 20 cc)	None
800	Infusion in 500 cc	None
800	Infusion in 500 cc	None
800	Infusion in 500 cc	None
800	Infusion in 500 cc.	None
400	Direct injection	Local pain
0		
800	Direct injection	Local pain

In general the observations reported here are in accord with the results obtained by others using various experimental animals The popular conception of the extreme toxicity of sodium fluoride is not supported by these observations In a review of cancer therapy Woglom mentions fluoride as a potential chemotherapeutic agent only to eliminate it on the basis of its supposed toxicity It is our belief that this fear of fluorides is greatly magnified Normal tissue has a wide latitude of tolerance although certain malignant tissue is extremely sensitive to it It appears safe to say that within the doses indicated further study should not be deterred by fear of toxicity

Summary

The ingestion of 320 mg of sodium fluoride per day for periods of five to six months has not resulted in any evidence of acute or chronic toxicity in man Relatively high doses are also tolerated intravenously without deleterious effects Certain malignant tissue may show a greater sensitivity than normal tissue

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DEATH CERTIFICATES

Members are reminded that funeral directors cannot obtain permission to remove a body without the death certificate and the confidential medical report, and are requested to cooperate with the mortician and the deceased's family by prompt issuance of the necessary papers

PLATELET RESPONSE TO VITAMIN B COMPLEX IN THE NEWBORN PERIOD

Louis S Goldstein, M D , Yonkers, New York

(From the Yonkers Professional Hospital)

JAPANESE investigators carefully studied the platelet count in beriberi They reported that with clinical improvement the elevated platelet count frequently returned to normal [1]

In a recent case of congenital thiamin deficiency (infantile beriberi), thrombopenia, rather than an elevated platelet count, was observed On treatment with daily intramuscular injections of vitamin B complex, the platelet count gradually approached normal In view of the apparent increase in platelet count following specific therapy, it was decided to examine the relationship of vitamin B complex to platelet response in the newborn period

Apparently normal, newborn infants were selected for this study, regardless of gestation, sex, or birth weight Within twenty-four hours after birth, a group of ten newborn infants received daily intramuscular injections of $^1/_2$ cc of vitamin B complex (Betalin Complex-Lilly) for four days * Alternate infants received no therapy All infants received the routine nursery formula starting twelve hours after birth and consisting of $^2/_3$ whole cow's milk, $^1/_3$ boiled water, and 3 per cent granulated sugar

The method used for the counting of platelets is that described by Wood, Vogel, and Famulener, who used a 3 per cent solution of sodium citrate as the 1 100 diluent in a red cell pipet [2] The mixture is allowed to settle for ten minutes in the chamber before the counting is done With a high dry objective it is easy to recognize the unstained platelets At least 200 small squares must be counted [3]

Platelet counts were made from capillary blood taken from heel puncture Leslie and Sanford noted that the platelets are higher in venous plasma than in whole blood [4] This did not affect the present study, since I was not interested in specific counts, per se, but rather in the direction of fluctuation on the various days Davidson and Merritt and Lucas reported a physiologic drop in platelet count after the fourth day [5 6] This was confirmed in the control group (Table 1 and Fig 1) In direct contrast, the majority of infants who received daily injections of vitamin B complex showed a rise in platelet count on the fifth day (Table 2 and Fig 2)

Discussion

Ten apparently normal, newborn infants were used as controls to compare the response of an alternate group of ten normal newborn infants to injections of vitamin B complex Daily platelet counts were made Seven of the ten controls showed a drop in platelet count on the fifth day, whereas eight of the experimental group showed an increase in platelet count Further-

* Betalin Complex (Lilly)—each cubic centimeter contains thiamin chloride 5 mg. riboflavin 2 mg. nicotinamide 75 mg. pantothenic acid 2 5 mg. pyridoxine hydrochloride 5 mg. and phenol (as preservative) 0 5 per cent

TABLE 1 —Controls

Case Number	1	2	3	4	5	6	7	8	9	10
1st day	490*	420	610	450	470	480	410	430	360	300
2nd day	390	400	400	480	460	450	380	400		340
3rd day			530	420	460	580	400		378	350
4th day	390	380	500	490	480	400	350	410	390	470
5th day	300	350	410	380	430	490	280	350	450	500
6th day	280	310	460			430	410	430	250	
7th day	660	500		400	430	380	400	360	410	380
8th day	550	450	280	430	460	400	380	420	360	320
9th day		380	510	360		350	400			220
10th day			540							

* To simplify tabulation only the first three numerals are used to represent thousands of platelets

TABLE 2 —Infants Who Received Vitamin B Complex

Case Number	1	2	3	4	5	6	7	8	9	10
1st day	660*	330	270	680	350	720	620	380	220	300
2nd day	510	380	670	470			270			
3rd day	650	340	400	250	550			400	220	280
4th day	420	310	400	310	520	520	500	330	210	330
5th day	510	550	530	350	620	630	440	320	230	360
6th day	340	500	390	380	550	710	480	340	260	360
7th day		550			400	500	540	520	210	350
8th day	330	250	430	230	300		410		230	350
9th day	460		420	300	230	320				
10th day	510			450						

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TABLE 2.—Reactions in Tests of Sera from 54 Nonsyphilitic Hospital Patients

Types of test	Cardiolipin antigen		Lipoidal antigen		
	Quantitative complement fixation*	Quantitative tube precipitation*	Kahn	Mazzini	Kolmer
Number of reactions	0	6	5	13	2
Titer or degree of reaction		2–5	1–3	± to 4+	4+

*New York State

cipitation test using cardiolipin antigen. Five reactions occurred in the tube precipitation test with lipoidal antigen, subsequent specimens from these individuals failed to react in this test. Reactions occurred with four specimens in slide precipitation tests using cardiolipin antigen, all were from individuals whose specimens reacted with lipoidal antigen in the tube test.

The second series of tests was performed with specimens from hospitalized patients. Dr. Evan W. Thomas and Dr. Simeon Landy of Bellevue Hospital, New York, made available the sera from 54 nonsyphilitic patients with a variety of dermatologic ailments, all had been successfully vaccinated two weeks before testing. The quantitative complement fixation test and the quantitative tube precipitation test using cardiolipin antigen were performed at the Branch Laboratory of this Division in New York City, the three tests using lipoidal antigen were performed at Bellevue Hospital Laboratory. The results are presented in Table 2. In all instances where reactions occurred in any of the serologic tests, specimens collected subsequently failed to react.

In these two groups of cases it is not possible to make a satisfactory comparison of all the factors in the tests used. The tests differ among themselves in more respects than antigen alone. It appears, however, that the use of cardiolipin antigens results in greater specificity than is attained with lipoidal antigens. It is apparent, also, that the use of cardiolipin is, in itself, no guarantee that false reactions will be avoided. The use of cardiolipin with every technic does not confer perfection, the technics themselves apparently have limitations. Even in the quantitative complement fixation test, the most specific of the group presented, reactions of low titer occurred in a few sera from vaccinated individuals. This was found to be the case by Maltaner and Maltaner when they used an experimental thirty-minute period of fixation at 37 C. in parallel with the standard four hours at from 3 to 6 C., reactions of titer approximately 2 occurred at 37 C. but not with cold fixation.[6] This was confirmed in the present series.

The experience in New York City is consonant with the findings presented here.[10] The percentage of reacting sera during the period in which a large number of citizens were vaccinated was not larger than in the period preceding or following it. The results of tests in periods preceding and following show no influence attributable to the vaccination.

In summary, it appears that false reactions in serologic tests for syphilis, following vaccination against smallpox, are due to the reagents used and to technics of testing. Reactions are more common with lipoidal antigens than with cardiolipin antigens. They are more apt to occur in precipitation tests than in complement fixation tests. In the New York State quantitative complement fixation test with cardiolipin antigen, reactions are rare when the temperature of fixation is 3 to 6 C.

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THE 98TH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION WILL BE HELD JUNE 6–10, 1949, IN ATLANTIC CITY, NEW JERSEY

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Discussion

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6th day	280	310	460			430	410	430	250	
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8th day	550	450	280	430	460	400	380	420	360	320
9th day		380	510	360		350	400			220
10th day			540							

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3rd day	650	340	400	250	550			400	220	280
4th day	420	310	400	310	520	520	500	330	210	330
5th day	510	550	530	350	620	630	440	320	230	360
6th day	340	500	390	380	550	710	480	340	260	360
7th day		550			400	500	540	320	210	350
8th day	330	250	430	230	300		410		230	350
9th day	460		420	300	230	320				
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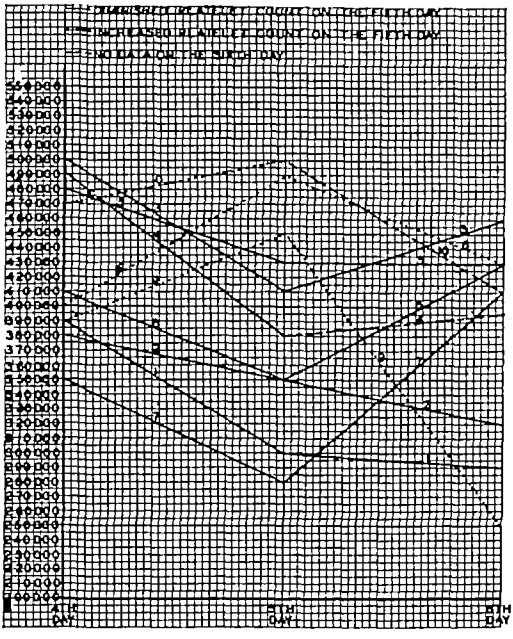


FIG 1 Controls

more, the highest platelet count on the fifth day in the control group was 430,000 platelets per cu mm, whereas in the experimental group the lowest platelet count on the fifth day was above 500,000 in one half of the cases, a figure greater than the highest counts in the control group

Conclusion

1 From the above numerical data and Table 2 and Fig 2 it is seen that vitamin B complex is responsible for a rise in platelet count on the fifth day in direct contrast to the controls who show a drop in platelet count (Table 1 and Fig 1)

2 It might be interesting to theorize on the questions Is congenital essential thrombopenic purpura due to vitamin B complex deficiency and can it be treated with specific therapy?

3 This study should be repeated using thiamin alone in view of Sumner's study of the platelet response to thiamin in the white rat [7]

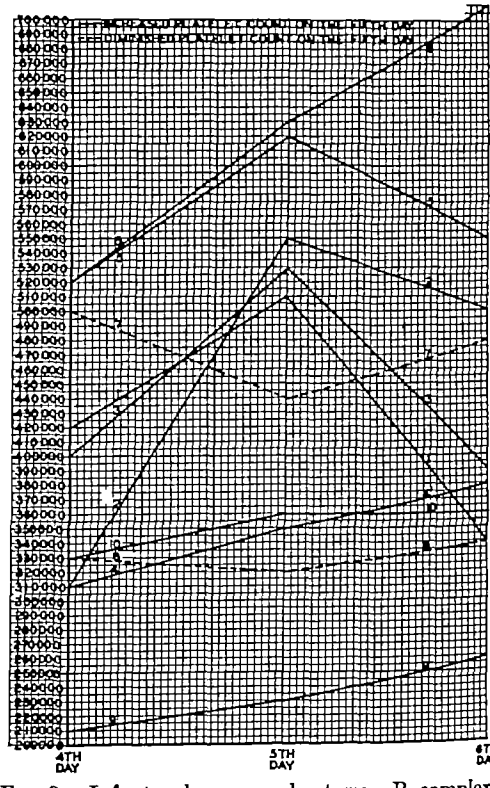


FIG 2 Infants who received vitamin B complex

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I am indebted to Dr Joseph Greenfield superintendent of Professional Hospital and Drs Al Morrone and Richard Young obstetricians for permission to use their delivered infants for this experimental study Also to the laboratory staff who did the tedious job of daily platelet counts

THE ATLANTIC CITY SESSION

This year's annual meeting of the A.M A presents many features of great interest not only in the field of medicine itself, but in other matters which are closely related The proceedings of the House of Delegates are of special importance in view of the current problems which, in a sense, are assailing the American medical profession As stated in an editorial announcement (*J A M A*, April 23 1949), "The Atlantic City session will obviously be one of the most important held by the greatest medical organization in the world, and the decisions of that session will be vitally significant in determining the future of medicine in our country"

Those who can arrange to attend should do so!

Case Reports

CARCINOMA OF THE EXTRAHEPATIC BILE DUCTS

GEORGE M SAYPOL, M D , and BENJAMIN S FISHMAN, M D , New York City

(From the Departments of Surgery and Medicine, New York Post-Graduate Medical School and Hospital)

CARCINOMA of the extrahepatic bile ducts above the ampulla of Vater may be villous, annular, or diffuse in type The first two types, even though small, should not be difficult to recognize at operation, particularly if immediate cholangiography is performed The diffuse type, however, may easily be missed The extrahepatic ducts may be smooth and rigid without any evidence of encroachment upon the lumen by a circumscribed mass Immediate cholangiography is apt to show ducts of normal caliber and unobstructed flow of contrast media into the duodenum. Biopsy of the duct wall may be misleading if the section does not include an area invaded by tumor cells The diagnosis most likely to be made is benign fibrosis of the hepatic or common duct

The case to be presented was believed to be one of common duct fibrosis associated with cholelithiasis and cholangitis Two operations and gross examination of the organs at postmortem failed to reveal the diagnosis The latter was made only after careful study of microscopic sections of the bile ducts and other organs

Case Report

D B , a fifty-five-year-old white woman, was admitted April 15, 1947, with a history of right upper quadrant pain radiating to the scapula, increasing jaundice, itching, chills, fever to 104 F , and weight loss of 50 pounds during the preceding four weeks Stool was clay-colored, and urine was amber in appearance

Physical examination revealed a markedly icteric patient with evidence of recent weight loss and multiple scratch marks on the skin Liver was enlarged to three fingers below the right subcostal margin, the spleen was not felt.

Laboratory findings were as follows urine positive for bile, stool gray and negative for occult blood, white cell count was 16,250 with polymorphonuclear cells 84 per cent, icterus index 90 units, serum bilirubin 15 5 mg per cent, alkaline phosphatase 12 5 Bodansky units, cephalin-cholesterol flocculation 1 in twenty-four hours, total serum cholesterol 160 mg per cent, serum cholesterol esters 35 mg per cent, total serum proteins 5 1 Gm per cent, albumin-globulin ratio 1 6, and serum amylase normal Cholecystogram done just before admission was reported "no visualization " Gastrointestinal x-ray series was negative.

Course in the hospital for one week was characterized by persistence of abdominal pain, chills, and fever ranging between 98 and 104 F A diagnosis of chronic cholecystitis with cholelithiasis and choledocholithiasis or carcinoma of the head of the pancreas was made

Operation was performed on April 22, 1947, with the following findings The liver was enlarged, not nodular, and greenish brown. The gallbladder was shrunken, fibrotic, and adherent to the duodenum, hepatic flexure, and the greater omentum. It contained numerous stones of a mixed type. The common bile duct was about 6 mm. in diameter, thickened, and resembled an artery in consistency, it was patent and contained a few cubic centimeters of thick, tan bile. The ampulla was patent, admitting a probe with ease. There was no suspicion of ampullary or pancreatic tumor Cholecystectomy, choledochostomy, and liver biopsy were performed Pathologic report was chronic cholecystitis, cholelithiasis and biliary cirrhosis Culture of bile was reported positive for Escherichia coli Postoperative course was characterized by fever ranging between 99 and 104 F , bile drainage through and around the "T" tube, and persistence of E coli in the bile These were unrelieved by penicillin, streptomycin, and the sulfa drugs Cholangiograms on the fourteenth and sixtieth postoperative days revealed a patent, undilated common duct (Fig 1) By the fiftieth postoperative day bile drainage around the the tube had diminished considerably, and temperature range was between 99 and 103 F On the sixty-first day the "T" tube was removed, and on the



FIG 1 Cholangiogram taken on the fourteenth day after the first operation



FIG 2 Section of common bile duct showing invasion of nerve by carcinoma (105 ×)



FIG 3 Section of hepaticoduodenostomy (85 ×)

seventieth day the patient was discharged under continued observation

Laboratory findings at this time (July 2, 1947) were as follows icterus index 13 6 units, alkaline phosphatase 8 1 Bodansky units, cephalin-cholesterol flocculation 3 in twenty-four hours, thymol turbidity 9 units, total serum cholesterol 206 mg per cent, serum cholesterol esters 166 mg per cent, and total serum proteins 7 8 Gm per cent

On July 25, 1947, she was readmitted to the hospital (three months after her first operation) for incision and drainage of an abscess of the buttock resulting from intramuscular injections of liver extract There was still a small amount of bile draining from the abdominal sinus, and fever ranged between 99 and 102 F Laboratory studies at this time were icterus index 26 units, serum bilirubin 3 2 mg per cent, alkaline phosphatase 8 3 Bodansky units, cephalin-cholesterol flocculation 2 in twenty-four hours, thymol turbidity 6 units, total serum cholesterol 252 mg per cent, and serum cholesterol esters 181 mg per cent

She was discharged nine days later She continued to drain bile from the sinus, had spiking temperatures to 103 F , increasing jaundice, and right upper quadrant pain

On September 19, 1947, she was admitted to the hospital a third time (five months after her first operation) The liver was enlarged to five fingers below the right subcostal margin and the spleen was palpable Laboratory findings were icterus index 50 units, serum bilirubin 6 9 mg per cent, alkaline phosphatase 8 6 Bodansky units, cephalin-cholesterol flocculation 4 in twenty-four hours, thymol turbidity 12 units, total serum cholesterol 240 mg per cent, serum cholesterol esters 133 mg per cent, and total serum proteins 8 6 Gm. per cent

A cholangiogram was attempted by inserting a catheter into the biliary sinus and injecting diodrast The biliary tree did not outline, dye being observed only in the duodenum In order to rule out an overlooked stone or tumor of the common bile duct, another exploration was decided upon, and this was performed on October 10, 1947 The biliary sinus was followed down to the hilus of the liver where a pinpoint opening exuding bile was discovered Exploration of the hepatoduodenal ligament for study of the common duct proved fruitless The aforementioned opening at the hilus was dilated with the production of free bile, and an hepaticoduodenostomy over a "T" tube was performed The liver and spleen were enlarged There was no evidence of any tumor Culture of the bile was again positive for E coli Postoperatively, bile drained through the "T" tube and, around it, bile and duodenal contents Temperature ranged between 97 and 103 F She went progressively downhill and died November 18, 1947, one month after her last operation and seven months after her first operation The clinical diagnosis was chronic cholecystitis with cholelithiasis, cholangitis, biliary cirrhosis with splenomegaly, and fibrosing stenosis of the common bile duct associated with infection

Postmortem Microscopic Examination

Common Bile Duct —Section of the proximal portion of common duct shows only a small portion of recognizable mucosa Tumor is invading nerve trunks (Fig 2) Fibrous tissue is infiltrated with chronic inflammatory cells In one area there is necrosis of a tumor nodule with polymorphonuclear exudation In the wall of the duct is a lymph node containing a few tumor cells There is a dilatation

of sinusoids and proliferation of reticuloendothelial elements, many of which contain brown-yellow, granular pigment

Hepaticoduodenostomy —Section through the area of anastomosis of duodenum to hepatic duct shows the duodenal mucosa generally has undergone postmortem necrosis The deeper tissues show fibrosis and are infiltrated with chronic inflammatory cells and phagocytes laden with hemosiderin One large duct structure, seen as a longitudinal slit, probably represents a hepatic duct Scattered in the fibrous tissues are carcinomatous glands (Fig 3)

Liver —Section of liver shows a generalized necrosis affecting mainly the central two thirds of the lobule Disintegration of the cells is quite complete Yellow and brown intra- and intercellular pigment are present In the peripheral portion of the lobules there is a better preservation of tissue Brown pigment is present in liver and Kupfer cells A few bile plugs are noted Portal areas show fibrosis and a moderate bile duct proliferation A few chronic inflammatory cells are noted in the portal areas also

Peritoneum —Diaphragmatic, pelvic, and abdominal (region of cecum) peritoneum show invasion by scattered tumor cells

Final Diagnosis —Carcinoma of the common and hepatic bile ducts Secondary carcinoma of the peritoneum Biliary cirrhosis

103 East 86th Street
1 East 72nd Street

PULMONARY BACILLUS PYOCYANEUS INFECTION IN AN ADULT WITH RECOVERY

Eugene Bifulco, M D , Hempstead, New York

(*From the Nassau Hospital, Mineola*)

SYSTEMIC Bacillus pyocyaneus infection may affect the extremes of life, from the fetus *in utero* to the adult [1] The occurrence of this fatal infection in infancy and childhood, usually manifested by necrotizing skin lesions and terminating invariably in septicemia, exemplifies the virulency of this organism in the early years of life [2] Its virulence is by no means obtunded in the adult, as attested by fatal cases of septicemia and endocarditis, there being only seven cases of the latter reported in the literature [3–8] Interestingly enough, a case of multiple liver abscesses from which a pure culture of B pyocyaneus was obtained was cured by surgical evacuation of the abscesses [7]

Frank pulmonary infections of B pyocyaneous are not common and are usually marked by a fulminating, rapidly fatal course Such was the experience in the cases reported by Soltmann, Clarke, Dudden, and Fraenkel, as quoted by Epstein and Grossman [2] It is interesting to note, however, that in a recent report by Frada a case of an adult with pulmonary B pyocyaneus infection simulating tuberculosis is recorded [8] This patient lived one year from the inception of her illness, finally dying in a cachectic state What the course of this case might have been if antibiotic agents had been available for therapy is now mere conjecture In the light of these facts it seems appropriate to report the following case of pulmonary B pyocyaneus infection with recovery following antibiotic therapy To my knowledge this is the first case of recovery recorded from this type of pulmonary infection

Case Report

A white man, aged fifty-five, was admitted via ambulance to the Nassau Hospital on May 20 1948 His chief complaint was difficulty in breathing of five years duration He dates the commencement of his present illness from a confinement at home for a period of five weeks in April and May, 1943, for a virus pneumonia' Following this confinement, till approximately one year ago, he endured a persistent dyspnea which remained unmodified by rest Despite the dyspnea he was able to continue as a fertilizer salesman till about June, 1947 During this latter month the dyspnea had progressed to the point where he had to discontinue his work and remain confined at home In October, 1947, he was hospitalized by his local physician for a period of two weeks During his hospitalization he was on a strict cardiac regimen of absolute bed rest, low sodium diet, digitalis, and mercuhydrin He was discharged slightly improved, but his dyspnea continued unabated From about the middle of March, 1948, till date of present admission he developed paroxysms of coughing which were usually terminated after the expectoration of a thick, tenacious plug of mucus During the week prior to date of present admission he was confined to absolute bed rest, using oxygen continuously, having more frequent paroxysms of severe coughing and expectorating about 20 cc of thick, grayish-green, mucopurulent material During this latter week the patient partook of very little food and fluids, and was very restless and obtained no relief from the continuous use of oxygen from nebulization of adrenalin 1 100 or Isuprel, and from aminophylline or papaverine * Demerol was finally resorted to with little benefit Patient's condition declined very rapidly, and finally permission for hospitalization was obtained when he was in a semidelirious state.

The past history reveals that twenty years ago he was operated for a rectal fistula but has since had a draining sinus on the right buttock Five years ago and again three years ago he was examined in a local

* Isuprel 1 (3 4 -dihydroxyphenyl) 2 isopropylaminoethanol hydrochloride

tuberculosis sanatorium Complete physical and laboratory examinations for tuberculosis proved negative

Examination on admission disclosed an acutely ill, thin, white male sitting in bed with a Boothby-Lovelace-Bulbulian mask in place, moaning and turning his head from side to side His color was cyanotic, despite the oxygen He was obviously having extreme difficulty breathing, and the accessory respiratory muscles were noted to be in active use To percussion the chest yielded hyperresonance over both lung fields On auscultation there were musical and wheezing rales throughout both lung fields with medium moist rales elicited at both bases The heart sounds were normal at the apex but were occluded by noisy respiration at the base The rate at the apex was 120 The pulse was full, regular, and at a rate of 120 The blood pressure in millimeters of mercury was 150 systolic and 100 diastolic Examination of the abdomen was negative About one and one-half inches above and to the right of the anus was a small draining sinus Rectal examination digitally revealed a normal prostate There was no evidence of dependent edema The temperature by rectum was 100 F and the respirations 35 per minute

On admission the hemoglobin was 13 5 Gm per 100 cc (90 per cent) A complete blood cell count was reported as follows red blood cells 5,050,000, white blood cells 18,700 of which 70 per cent were polymorphonuclears, 9 per cent stab cells, 17 per cent lymphocytes, 3 per cent monocytes, and 1 per cent eosinophils Two other complete cell counts done during his hospital stay disclosed practically the same findings with the exception of the white cell count which decreased to 15,000 cells A white cell count of 7,600 with a normal differential was obtained two months after discharge from the hospital Twenty-six eosinophils per 100 white blood cells were found in a specimen of sputum examined on May 25 Urinalysis and blood chemistry were normal Blood serology was negative X-ray examination of the lungs on May 21 was reported as showing exaggerated lung markings and fine infiltrations scattered throughout both lower lobes tending to coalesce at the bases, particularly on the left side Multiple adhesions were noted on both sides of the diaphragm and an enlarged node in the lower part of the right hilum Repeat x-ray examination on May 28 revealed definite decrease in lung markings and in the amount of infiltration at the bases The diaphragm was now completely smooth and regular and the enlarged hilar node noted before was now not evident X-ray of the chest prior to discharge on June 4 was interpreted as revealing moderate amount of fibrosis in the lower lung fields

The treatment instituted included continuous use of oxygen by Boothby-Lovelace-Bulbulian mask (patient could not be kept in an oxygen tent), antibiotics by aerosol, and other supportive measures The aerosol therapy consisted of penicillin, 300,000 units, and 0 3 Gm streptomycin daily, in three equally divided doses during a twenty-four hour period The dosage of the latter was increased to 0 6 Gm daily from May 30 until one week after discharge. During this week the aerosol therapy was continued at home

Bacterial culture of sputa collected on May 22 and May 25 were reported as pure cultures of B pyocyaneus However, the first culture showed a very heavy growth, whereas the second culture which was taken three days after aerosol therapy showed a very scant growth Another sputum obtained for bacterial culture on June 2 was reported as sterile A blood culture was reported as negative Bacterial culture of drainage from fecal fistula was reported as growing Staphylococcus aureus, Beta-hemolytic streptococcus and Escherichia coli

During the first four hospital days the patient's condition was critical The severe and frequent paroxysms of coughing were uncontrollable, the dyspnea was obdurate, expectoration amounted to approximately 20 cc of thick, grayish-green material daily, and his color continued cyanotic despite unabated use of oxygen His temperature ranged between normal and 100 5° F and the pulse rate between 110 and 130 In the period from May 25 to May 30, although the dyspnea persisted, his color improved, the paroxysms of coughing lessened in number, and a decided change in the quantity, consistency, and color of the sputa occurred The patient was now expectorating daily about 5 cc of thin, brownish colored sputum Patient still used oxygen continuously Examination of the chest at this time revealed hyperresonance to percussion throughout and medium moist rales at the lung bases on auscultation The wheezing and musical rales previously noted were conspicuously absent At this time aerosol streptomycin dosage was increased to 0 6 Gm daily From this time onward patient began to improve very rapidly On discharge date patient had not been using oxygen for three days, his color was good, appetite was normal, the dyspnea was decidedly improved, and subjectively he felt much better Examination of the chest at this time was essentially the same as the findings noted in the examination above Bed rest and aerosol therapy was continued at home for one more week. At the end of this period patient was breathing normally On examination the moist rales at the lung bases were no longer heard The temperature, pulse, and respirations were normal The patient was allowed out of bed During the next two months the patient gained over ten pounds in weight and has not experienced any respiratory difficulty He has now resumed working

Summary

A case of severe intrinsic asthma is presented The causative agent proved to be B pyocyaneus Complete recovery was effected by the use of aerosol streptomycin and penicillin

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AFIBRINOGENEMIA OCCURRING IN A CASE OF MALIGNANCY OF THE PROSTATE WITH BONE METASTASES

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DEFICIENCY of any one component of the blood coagulation mechanism may result in failure of blood to clot. Common examples are thrombocytopenia (thromboplastin?) and prothrombinopenia. A rare defect is lack of the fibrinogen content of the blood, and rarer still are cases of total absence of fibrinogen. The literature records 12 cases of congenital deficiency of fibrinogen, eight of which showed afibrinogenemia and three cases in which fibrinogen disappeared completely, or almost so, from the blood in the course of acquired disease [1-5]

The site of fibrinogen synthesis and its metabolic cycle is incompletely understood Recording the pathologic conditions in which fibrinogen disappears from the blood may yield data of value in understanding the manufacture of fibrinogen Accordingly, a case of acquired afibrinogenemia is being reported

Case Report

A seventy-two-year-old white man was admitted to the Goldwater Memorial Hospital on March 28, 1947, complaining of frequency of urination, pain over the right iliac crest and the right anterior rib cage, progressive weakness, anorexia, and loss of weight The prior history was noncontributory There was considerable mental obtundity so that system review and other phases of his history were almost unobtainable

In September, 1946, he had an attack of acute coronary thrombosis He was admitted to another hospital where it was noted that he had a tremor of the hands and tongue, ankylosis of the left knee, and a stony hard prostate enlarged to about double the average size Examination of the blood showed acid phosphatase 5 6 units (Gutman), hemoglobin 11 Gm., and erythrocytes 3,300,000 The stool guaiac test was negative Roentgenograms of the bony skeleton revealed no evidences of bone metastases After medication with stilbestrol the acid phosphatase became reduced to 3 7 units

Physical examination on admission revealed the following The appearance was that of a cachectic, elderly man with masklike facies of Parkinson's disease Fine tremors of the tongue and hands were evident. The pupils were slightly irregular and reacted to light and accommodation. The fundi were unremarkable There were a few scattered corneal opacities There were no retinal hemorrhages A few shotty cervical nodes could be felt There was marked tenderness to pressure over the right lower two ribs anteriorly and laterally The abdominal wall was thin, and the skin was loose The spleen and liver could not be felt The prostate was stony hard and about twice normal size There were no palpable nodules The deep tendon reflexes were normally active No pathologic reflexes were present. The diagnosis of malignancy of the prostate was made

Laboratory Findings.—The kidneys concentrated urine to specific gravity of 1 021 The urine was alkaline, showed a trace of protein, but no glucose or acetone Microscopically, a few red and white blood cells were seen The blood hemoglobin was 10 Gm , red blood cells 3,700,000, white blood cells 15,400, polymorphonuclears 70 per cent, staff cells 6 per cent, lymphocytes 27 per cent, and monocytes 3 per cent Blood urea nitrogen was 19 5 mg , glucose 82 mg per 100 ml. The erythrocyte sedimentation rate was normal, hematocrit was 36 per cent, Wassermann and Mazzini reactions were negative Acid phosphatase was 1 4 units (Gutman), alkaline phosphatase 5 4 units (King-Armstrong), total protein 6 74 Gm , and albumin 4.56 Gm per 100 ml

Clinical Course —Shortly after admission, pyuria with fever developed. Febrile temperature persisted despite sulfadiazine therapy At the end of the second week, the patient complained of pain in the right hip and iliac crest, and costovertebral tenderness was elicited on the left side Roentgenograms revealed no metastases in the chest cage at the time On the twenty-fifth hospital day, a large subconjunctival hemorrhage appeared in the left eye At that time the acid phosphatase was 14.5 units (Gutman) Roentgenograms of the bones showed marked sclerosis in the region of the left sacroiliac joint and a patchy moth-eaten area of destruction in the region of the iliac crest The twelfth dorsal and first lumbar vertebrae were collapsed Other bones were unremarkable Aspiration biopsy of the liver revealed normal liver architecture and no evidence of infiltration by tumor Sternal marrow aspiration yielded 22,000 nucleated cells per cu cm., with an increase in normoblasts (30 per cent) On the day following sternal puncture, bleeding occurred from the wound and was stopped with considerable difficulty The bleeding recurred some hours later, and at the same time oozing of blood appeared at the site of small pressure ulcers on the lower back and the posterior aspect of the right elbow The coagulation time (Lee-White) was twenty minutes Two days later, the prothrombin estimation showed no clotting after twelve minutes, in spite of 5 mg of vitamin K given parenterally on the previous day On this day, the patient's whole blood likewise failed to clot after several hours Since no clot formed even after the addition of calcium, the fibrinogen content of the plasma was considered to be zero on two determinations Total protein was 5 40 Gm., albumin 3 1 Gm , and platelet count 220,000 The ventricular rate became very rapid Bleeding was diffuse, including generalized purpura, hemothorax, and tarry stools The blood pressure fell to 75/45, air hunger appeared, and the patient succumbed. Transfusion of 1 L of plasma and 500 ml whole blood had been given without effect

The following tests were made on samples of blood, taken during the hemorrhagic period, to identify the defect in the coagulation mechanism

1 Coagulation time and prothrombin time estimation In neither case was an endpoint obtained

2 Attempt to determine fibrinogen content of patient's plasma No precipitate appeared after calcium chloride was added

3 Patient's fresh whole blood was allowed to stand for several hours No clotting occurred Pure fibrinogen was added, and clotting followed after several minutes

4 Fresh normal serum was added to normal plasma, both fresh and aged Clotting followed promptly This proved that the serum possessed thrombin activity The serum was then added to the patient's plasma No clot appeared Pure fibrinogen was added to this mixture, and a clot formed promptly

5 Calcium chloride and active thromboplastin were added to the patient's plasma No endpoint was obtained Fibrinogen was added and a clot formed within a few seconds Addition of fibrinogen to calcium chloride and active thromboplastin failed to yield a clot in the absence of plasma

The patient's plasma failed to clot on the addition of calcium chloride The addition of active serum likewise failed to produce a clot This indicated that the patient's plasma could not be clotted by thrombin The addition of fibrinogen to the mixture was followed by clotting This suggested that the failure of the blood to clot was due to the lack of fibrinogen Fibrinogen was added to the patient's unclotted blood, and a clot formed This proved that prothrombin was present and active in the patient's blood This experiment suggested also that anticoagulant effect was not a cause of clotting failure Additional proof that anticoagulant was not a factor was obtained when it was shown that the addition of patient's plasma to normal plasma did not inhibit the clotting ability of the latter Electrophoretic patterns were not made

Discussion

The liver plays an essential role in the elaboration of fibrinogen Hepatectomy or destruction of the liver parenchyma by toxic agents is followed by a progressive fall in fibrinogen Similarly, when the circulation through the liver is disturbed by Eck fistula and hepatic artery ligation, the production of fibrinogen becomes inhibited Clinical findings indicate that the process is more complex than experimental studies indicate In the cases of congenital afibrinogenemia described in the literature, there was no causative factor common to all the cases other than fibrinogen failure In several of the cases of congenital fibrinogen insufficiency, establishment of the function of fibrinogen production seemed to be delayed since fibrinogen first appeared in the blood several days after birth The infants were sustained by blood transfusions in the interval In others, fibrinogen production did not start at all, and death resulted from exsanguination There was no pathology, other than hemorrhage, common to these cases

Of the acquired cases the report by Jurgens and Trautwein and the one herein described have several features in common Both cases presented the same clinical picture carcinoma of the prostate, bone metastases, fibrinogen deficiency, and consequent hemorrhages In both cases the liver appeared to be normal The inference is that the controlling mechanism for fibrinogen production may rest somewhere outside of the liver and possibly in the myeloid system Although the liver biopsy in our case was normal, there might have been disease elsewhere in the hepatic tissue This is improbable because there were no clinical evidences of such a state and the prothrombin activity was found to be normal when fibrinogen was added to plasma

The pattern of hemorrhage in the case described is noteworthy At first bleeding arose only at the site of tissue damage, presumably in areas where the capillaries have been altered The deficiency of fibrinogen was responsible for the failure of the blood to clot In the absence of clotting capacity hemorrhage once initiated continued without abating Subsequently, extravasation of blood became universal even in parts exposed to no particular stress or damage It appears, therefore, that maintenance of the capillary walls throughout the body in a normal state of integrity demands normal coagulability of the blood and that continuation of a state of hypocoagulability is followed by permeability to blood on the part of the capillary wall The identical behavior is observed in instances of impaired coagulation from other causes—thrombocytopenia, hypoprothrombinemia, and excess anticoagulant in the circulating blood We have observed a striking example of this in another case of hypocoagulability occurring in a patient exhibiting thrombocytopenia induced by quinidine sensitivity Platelet counts revealed rapid disappearance of thrombocytes from the peripheral blood so that within one hour after the drug was administered, no platelets could be seen in wet or stained blood specimens About two hours later, bleeding from the gums started, and not until several hours after this did hemorrhage commence to appear in other parts of the body

We have seen three instances after single large doses of dicumarol in which the prothrombin time became prolonged to more than sixty minutes and no bleeding appeared Apparently, the short duration of the prothrombin deficiency was inadequate to impair capillary permeability to the formed elements of the blood

Summary

A case of acquired afibrinogenemia is described It occurred in a patient showing clinical evidences of malignancy of the prostate with metastases diffusely distributed throughout the bony system The liver seemed to be adequate The findings indicate that fibrinogen production may be halted by disturbances in extrahepatic tissues, possibly in the myeloid system.

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MYOCARDIAL INFARCTION IN A TWENTY-FIVE-YEAR-OLD MALE

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IT IS becoming increasingly apparent that a diagnosis of myocardial infarction must be entertained in all cases of precordial distress in spite of the youth of the patient Electrocardiographic study is essential. Shivelhood has very recently reported a case of myocardial infarction in a twelve-year-old diabetic boy [1] French and Dock have reported a considerable group of young soldiers who suffered myocardial infarction while serving in the armed forces.[2] White states that the age incidence of coronary thrombosis with cardiac infarction occurring in persons under thirty years of age is about 0 7 per cent, and he points out the unusual fact that it strikes the robust and apparently most masculine young man [3] This observation is particularly striking in the case reported

Case Report

M S, a twenty-five-year-old white male, was seen on October 6, 1947, complaining of a vague precordial discomfort which he had noted daily for the past three weeks No history of any unusual exertion or emotional stress could be obtained as having occurred immediately prior to the onset of the patient's illness However, about one month before the patient noted any precordial discomfort, he did engage in a swimming contest after which he felt unusually exhausted and nauseous but had no chest pain at that time He quickly recovered from this sense of exhaustion and nausea About four weeks later, he began to notice some precordial discomfort He stated that on arising each morning he was free from any distress but after being up and about for one to two hours the precordial discomfort would appear and last all day On close questioning he recalled that on two occasions he noted a fleeting pain in his left arm It should be noted that this vague discomfort in his left chest did not interfere with his daily routine which consisted of his attending collegiate classes in preparation for a teaching vocation

The patient had been a member of the armed forces and served without any physical disability In August, 1946, he passed a rigorous physical examination and he was certified as fit for flying duty The family history elicited the fact that a paternal grandfather had died of a "heart attack" at the age of fifty-five The past history was essentially negative as regards any previous illness It is, however, interesting to note that the patient had always been inclined toward athletics and frequently engaged in calisthenics on his own just to keep in trim.

Physical examination revealed a robust and athletic looking young adult male in no apparent distress The only positive findings were a mild hypertension to the extent of 150/100, and fluoroscopy showed a suggestive enlargement of the heart to the left

An electrocardiogram taken on October 6, 1947, revealed an acute posterior wall infarction with probable extension to the anterolateral surface of the left ventricle Subsequent electrocardiograms completely confirmed this diagnosis and showed the full evolution of an acute coronary process (Figs 1 and 2)

An analysis of the first electrocardiogram taken on October 6 reveals deeply inverted and symmetric T waves in leads 2 and 3 with diphasic T waves in V_5 No Q waves or S-T deviations were noted

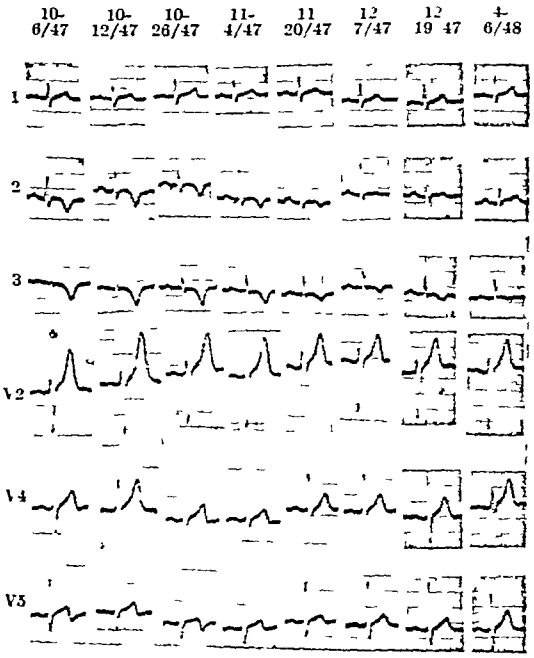


FIG 1 Serial electrocardiograms showing a posterior wall infarction T_2 and T_3 deeply inverted and symmetric with complete restitution to normal T in V_5 diphasic and then inverted also returned to normal and shows involvement of the anterolateral surface of the left ventricle

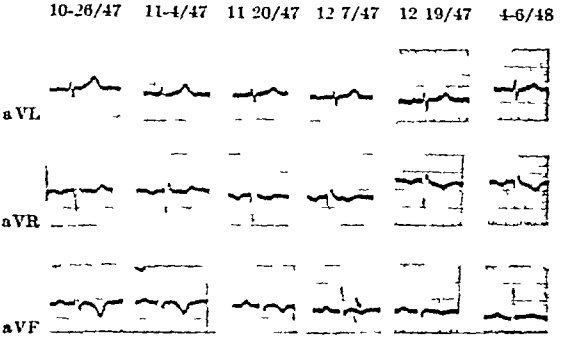


FIG 2 Augmented unipolar extremity leads T is deeply inverted and symmetric in the left leg lead (aVF) and is abnormally upright in the right arm lead (aVR) Restitution to normal takes place with T becoming upright in aVF and inverted in aVR

Katz has conveniently divided the evolution of the acute coronary electrocardiogram into four stages, namely, S-T stage, T waxing stage, T waning stage, and stabilized stage [4] In examining the first electrocardiogram it was impossible to determine whether we were dealing with stage 2 or 3 Subsequent electrocardiograms proved that we were in the T waxing stage as shown by the progressive deepening of the T waves in leads 2 and 3 As healing took place the T waves in these leads as well as the T waves in leads aVF and aVR returned to normal (Figs 1 and 2)

It should be noted that the sedimentation rate and white cell count were normal The rectal temperature never rose above 99 6 F

The clinical course was uneventful, and the patient made a complete recovery

Pathogenesis

It is interesting to speculate on the underlying pathogenesis of the infarction in this case Was this a case of coronary thrombosis with infarction, or was the infarction based upon an acute coronary insufficiency? The history of an exhausting physical exertion one month prior to the onset of precordial discomfort, the absence of Q waves in the electrocardiogram, and the complete return of the electrocardiogram to a normal pattern probably indicate that the infarction here was due to an acute coronary insufficiency which was initiated by strenuous competitive swimming in a contest which took place about four weeks prior to the onset of precordial discomfort

Summary

A case of myocardial infarction occurring in a robust, twenty-five-year-old male was discussed. A complete electrocardiographic evolution of the process was presented. The underlying pathogenesis of the infarction was probably based on an acute coronary insufficiency

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CALIFORNIA BILL POINTS TO POLITICAL DOMINATION OF MEDICINE

California doctors will face a precarious and uncertain future if S 157, a bill which has been introduced in the California Senate, is enacted, points out an editorial in the April 9 issue of the *Journal of the American Medical Association* For a third time, Governor Warren is now advocating a compulsory health insurance program for California In a message to the legislature January 3, he claimed that millions of people in California cannot pay for adequate medical care "without crippling their finances and without depriving themselves of other things that are needed to raise a good American family" He urged legislative adoption of a system of "health insurance to which everyone contributes and through which everyone will receive benefits in time of sickness"

Shortly thereafter, a bill reputed to embody the governor's ideas, S 157, to enact the "California Pre-Pay Health Service Act," was introduced in the California Senate The program would be financed, in part, by compulsory payroll taxes, referred to as "contributions" imposed on employers and employes The existing Department of Employment and a newly created Health Service Authority would administer the act This authority would include the director of public health as chairman, the chief executive officer of the Department of Employment, three physicians, two representatives of labor, two representatives of employers, and one dentist, the last eight members being appointed by the governor An executive director of the authority would be appointed also by the governor but on nomination by the authority A medical advisory board, a hospital service advisory board and an advisory committee on postgraduate study would be established, all of which would have no other responsibilities than giving advice

The concluding article of the bill, Article 14, deals with penalties Unprofessional conduct calling for the revocation of his license is charged against a physician who fails to disclose any "material fact known to him to obtain any service or benefit provided under the act" Each physician who participates in the program will presumably have to determine at his peril what is or is not a material fact Failure to disclose by physicians and by others is also declared to be a misdemeanor, as is also willful violation of any rule or regulation promulgated or published to effectuate the program Scattered throughout the 20 pages of this bill are innumerable statements in which the authority is authorized by regulation to impose requirements Apparently any express and clear provision for hearings on these regulations or for their publication in any definite manner is not included, yet a violation of any one of these would constitute a criminal offense This is the application of the methods of the "police state" at their worst to dominate the practice of medicine politically While a beneficiary may utilize more expensive hospital accommodations than those supplied under the bill, by paying the difference in cost, if a beneficiary and a physician mutually agree that the fee for medical services set by the authority is inadequate and if an additional fee is accepted by the physician, except in the case of a beneficiary entitled to reimbursement only, the license of the physician is made subject to revocation California physicians would face a precarious and uncertain future if this preposterous bill were to be enacted into law

GIANT CELL TUMOR OF THE PATELLA ENCOUNTERED DURING TREATMENT FOR PATELLAR FRACTURE*

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THE following case is of interest, because with repeated x-rays we were able to follow the progress of a recent fracture in a normal-sized, cystic patella over a three months period During this short time a marked multilocular cystic enlargement of the patella could be seen developing This proved to be a giant cell tumor of the patella

This presentation brings the number of giant cell tumors of the patella reported in the literature to 23 The twenty-second case was reported by Lantzounis in May, 1947 [1]

The literature has been well reviewed by Linde and Roemer [2, 3] Linde brought out the history of trauma associated with the majority of these tumors as a primal and accepted causative factor, but Roemer believes that because of the frequency of trauma to the patella in normal daily living it is of little significance Richards, Giberson, and King report a case of giant cell tumor of the patella with a pathologic fracture of the anterior cortex which was not associated with trauma [4] In the case presented below there were several episodes of trauma to the patella and following the last episode a stellate fracture of the posterior surface was discovered The x-ray of the patella on admission shows the stellate fracture lines and the early cystic changes (Fig 1) The x-ray taken three months later shows the rapid and marked multilocular cystic enlargement of the patella (Fig 2)

Case Report

B S, a white, male, twenty-four year-old, married premedical student, was admitted to the Veterans Hospital, Batavia, New York, on December 17, 1946, with the chief complaint of pain and swelling in the left knee with limited motion. The family and past history were noncontributory

The present illness began in March, 1946 when the patient first noticed pain in the left knee while playing basketball Following this he also began to notice pain even when walking up or down stairs He gave a history of having fallen on the left knee several times in the past while playing basketball and skiing but noticed no significant injury to the knee on these occasions During 1946, the knee gradually became more painful, and one week before admission the patient slipped on the ice and fell to the sidewalk, striking the left kneecap He stated that he felt something "snap" in the knee Following this the knee rapidly became swollen and acutely tender which prevented him from bearing any weight on his left leg The physician whom he had consulted in his home town had made a diagnosis of possible torn medial meniscus

The physical examination on admission showed a temperature of 98 F , pulse 80, respirations 20, and the blood pressure 110/70 The left knee was markedly swollen, and all movements at the knee joint were greatly limited and painful. There was no definite quadriceps atrophy noted. There was ten-



FIG 1 Oblique views of the patella on December 20, 1946, showing pathologic fracture lines extending through the cystic area



FIG 2 X-ray of the patella on March 21, 1947, showing the marked multilocular cystic enlargement

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derness along the anterior surface of the patella, but no erythema was present Aspiration returned 75 cc of both old and fresh blood The general examination was otherwise essentially normal

The laboratory examination showed an essentially normal complete blood count and urinalysis The Wassermann and Kahn tests were negative The coagulation time was five minutes and bleeding time two minutes

Roentgenograms of the left knee showed a stellate fracture of the posterior surface of the patella without displacement The fracture extended through an osteolytic area that had the appearance of a multilocular cyst There was no periosteal proliferation There was moderate soft tissue swelling beneath the quadriceps tendon X-rays of the right knee were normal

A diagnosis of fracture of the patella through a cystic area was made The cause of the cyst could not be determined with certainty, yet a history of previous injury in this region made it possible that the cyst might be due to bone absorption following damage to the blood supply A circular walking cast from the toes to upper thigh was applied, and the patient was allowed to return to college with instructions that he return in three to four weeks for follow-up study The patient returned in four weeks and stated that the knee had been comfortable while in the cast A repeat x-ray was taken with the cast removed and showed a diffuse decrease in density in the patella masking the cystic changes previously noted The fracture line was not visible There was some tenderness over the patella, and the knee was somewhat swollen On aspiration of the knee joint 50 cc of blood were obtained An elastic bandage was applied, and the patient was again allowed to return to college with the understanding that he was to report back in four to six weeks for additional follow-up studies

On March 21, 1947, the patient returned and stated that knee caused only moderate discomfort but continued to remain swollen At this time the patient had almost complete range of motion in the left knee An x-ray of the left knee at this time showed that the patella had expanded since the previous x-ray and contained a multilocular cyst that almost completely occupied the patella There was no evidence of new bone formation, but slight periosteal proliferation was seen along the anterior border A chest x-ray at this time was negative, as were x-rays of all the long bones Examination of the patella at this time showed it to be approximately 3/4 to 1 inch greater in width than the right patella Accurate measurement was impossible because of the moderate amount of swelling that was present in the left knee In the lower outer quadrant of the left patella there was a definite defect in the cortex that would admit the tip of the middle finger, and this area was quite tender The patella was freely movable and there were no other significant physical findings

A diagnosis of possible giant cell tumor of the patella was made On March 27, 1947, excision of the entire patella was carried out A half-moon incision was made with the convexity downward The quadriceps tendon was incised longitudinally over the patella which was then shelled out by sharp dissection leaving sufficient tendon for closure Because of the marked and persistent oozing caused by the increased vascularity around the knee, it was necessary to apply a tourniquet to the upper thigh during the operation The patella *in situ* showed a defect in the cortex, approximately 2 cm in diameter in the lower lateral aspect The tumor tissue seen



FIG 3 Coronal section through left patella showing tumor mass

through this defect was very vascular, spongy, and friable The portion of the quadriceps tendon overlying this defect was excised, and the remaining tendon was sutured in the midline without tension, using interrupted black silk sutures Following closure a well-padded elastic bandage dressing was applied The postoperative course was slow and uneventful On the fifth postoperative day 60 cc of bloody fluid were removed from the left knee joint. On the eighth postoperative day the patient was allowed up on crutches He continued with daily exercises and physiotherapy until his discharge May 6, 1947, on his thirty-ninth postoperative day, at which time he had only a 10-degree lack of full extension and only 30-degree lack of full flexion, but he continued to have a slight amount of swelling in the left knee

The pathologic report states that the somewhat enlarged patella specimen shows fused stellate fracture lines on the articular surface The anterior surface shows an irregular defect in the cortex measuring 1 5 by 2 cm. on the inferolateral aspect On coronal section the tumor mass appears to occupy approximately three-fourths of the enlarged patella. It is fleshy in appearance and trabeculated The cortex of the specimen is egg-shell in thickness along the lower pole and lateral aspect but shows an eccentric increased thickness over the superior pole (Fig 3)

Microscopic section shows a diffuse arrangement of fusiform, stellate and irregular cells with hyperchromic nuclei which lie in a reticular and partially collagenized matrix There is abundant lymphatic and capillary network Adjoining the lymph spaces and in some instances lying within them, there are numerous giant cells containing from three to 20 nuclei, the latter likewise being hyperchromic and bordered by homogeneous basophilic cytoplasm In most instances the giant cells resemble osteoclast aggressions, but a few with peripherally placed nuclei resemble Langhan's cells In spite of the hyperchromia of the nuclei and disorganization of the tumor tissue as a whole, the spindle cells give the impression of maturation tendency and the process is, therefore, considered to be a benign giant cell tumor (Fig 4)

The patient returned to the hospital on October 10, 1947, with the history that he had noticed a small gradually enlarging mass in the region of the left knee cap for the past two to three months Examination showed a nontender, freely movable mass, 2 cm in diameter, on the anterior surface of the left

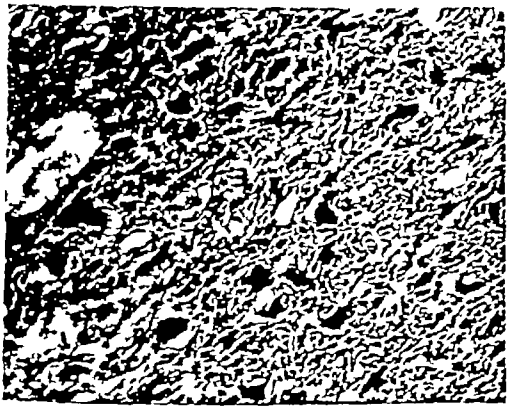


FIG 4 Low power magnification showing hyperchromatic multinucleated giant cells

knee There was practically complete range of flexion and extension at this time with no evidence of fluid in the knee joint

Roentgenograms of the left knee at this time showed no abnormality in the bones The patella was absent There was irregular ossification in the quadriceps tendon close to the previous position of the patella There was a large homogeneous soft tissue density in the anterior portion of the knee joint

On October 11, 1947, the tumor was re-excised, this time using electrocautery The postoperative course was uneventful. The pathologic picture at this time showed a mass, 2 cm. in diameter, which appeared circumscribed and encapsulated The surface was granular and nodular and of firm consistency Cut sections showed a coarse architecture of mottled grayish-brown color Microscopic examination showed a very cellular tumor with an abundant number of multinucleated giant cells similar in appearance to the microscopic sections from the original tumor

The patient was discharged from the hospital on October 24, 1947, and at the time of his last follow-up visit on June 8, 1948, he had no discomfort or limitation of movement in the right knee There was no increased fluid in the knee joint and no evidence of recurrence of the tumor either clinically or radiographically

Because of the benign nature of these tumors which have previously been termed myeloid sarcoma, giant cell sarcoma, osteoclastoma, etc Bloodgood in 1910 recommended the term giant cell tumor to describe these benign lesions [5] Giant cell tumor of the patella is a low-grade neoplastic process pursuing a prolonged and generally progressive course without metastasis Linde reports that, to date, no giant cell tumor of the patella has shown a malignant or metastatic behavior [2] Henry reported a case of giant cell tumor of the patella of several years duration with such extreme atrophy of the quadriceps that at the time of excision of the patella it was necessary to arthrodese the knee joint [6] Kraft presented a case of giant cell tumor of the patella that was lanced, and followed by raw oozing masses growing out of the skin incisions [7] This tumor was later excised and curetted with good results

In reviewing the cases presented in the literature it is found that the best results are obtained by early operative excision of the entire patella

Our patient's recurrence was first noticed about two or three months after the original excision It has now been eight months since the re-excision of the tumor, and there is no clinical nor radiographic evidence of recurrence to date It is likely that the entire patella tumor was incompletely excised at the first operation

Summary

1 A primary benign giant cell tumor of the patella with a pathologic stellate fracture of the posterior surface is reported

2 Patellar trauma which has been mentioned as a possible causative factor in nearly all of the previously reported cases is significantly present in this case

3 Review of the other reported cases indicates that giant cell tumors of the patella are benign but should be removed early by excision to avoid local extension Complete excision of the patella is the procedure of choice in producing the most satisfactory results

4 Re-excision of the tumor recurrence in our case has given a satisfactory result

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STATE MEMBERSHIP INCREASES IN VOLUNTARY MEDICAL CARE PLANS

Membership increased more than 515,000 in the six voluntary medical care insurance plans approved by the Medical Society of the State of New York during 1948 and now exceeds 1,550,000, George P Farrell, director of the State Society's Bureau of Medical Care Insurance, announced recently

Benefits to members during 1948 were in excess of $5,727,000 as compared to $3,500,000 in 1947

These plans, often referred to as the "Doctors' Plans" or "Blue Shield Plans," are located in Albany, New York Utica, Rochester, Syracuse, and Buffalo and serve the entire State

Group enrollment is through place of employment and for those who do not qualify for group enrollment individual enrollment on a direct pay basis is an established policy in most of the plans

Consideration and study is now being given to a uniform contract which is to be offered by these local plans to groups throughout the State. This is expected greatly to increase membership

The people of New York State have accepted the voluntary principle of prepayment insurance against the costs of medical and surgical care and it is anticipated that 1949 enrollment will exceed 1948

SUBACUTE BACTERIAL ENDOCARDITIS

W D Stubenbord, M D , C A Webster, M D , and E J Van Slyck, M D , New York City

(From the Departments of Medicine, New York Hospital, Cornell University Medical College, and St Luke's Hospital)

IT HAS been stated that 90 to 95 per cent of the organisms causing subacute bacterial endocarditis belong to the nonhemolytic streptococci group [1] Of the remaining percentage, the Pfeiffer's bacillus, the Neisseria group, the influenza group, the Brucella group, Straphylococcus, pneumococcus and other organisms have been reported by Blum and by Thayer [2 3] Hunter and Duane reported a case of endocarditis due to a small gram-negative organism with characteristics placing it outside the Brucella, Hemophilus, Pasteurella, and bacteroid groups [4] This case was cured by the combined use of sulfadiazine and streptomycin Other reports of the use of streptomycin in the treatment of subacute bacterial endocarditis have been made by Priest and McGee [5]

The following case is reported, as it shows a cure of an unidentified gram-negative organism, treated with sulfadiazine and streptomycin

Case Report

R J , a forty-four-year-old white married woman, was admitted to the private patient's service of St Luke's Hospital with a history of nausea and right lower quadrant pain of one month's duration Although of an introspective and hypochondriac nature, she had been feeling well until about four weeks prior to admission, when she noticed the insidious onset of crampy right lower quadrant pain, accompanied by anorexia and nausea Food intake seemed to aggravate the abdominal pain and caused severe nausea, but no vomiting Her weight dropped from 105 pounds to 89 pounds in one month's time During the week before admission, she had been subsisting on fluids and boiled eggs A proctoscopic examination and a barium enema done before entering the hospital revealed no abnormal findings Her abdominal pain and nausea increased following the barium enema No rash, chills, or fever had been noted by the patient

During childhood she had rheumatic fever and for many years has been known to have a heart murmur She had a tonsillectomy when a young girl, and a combined bilateral salpingectomy and appendectomy in 1938 In 1946 a peritonsillar abscess was incised Except for slight dyspnea on exertion and chronic constipation her systemic review was negative Family history showed that her mother and sister died of cancer of the uterus

On admission, the following positive findings were revealed temperature 101 F , pulse 88, respiration 20, blood pressure 110/70 The patient was a well-developed, thin, pale, middle-aged female appearing chronically ill No petechiae were noted Her heart was enlarged to the left, with a heaving maximal impulse outside the midclavicular line in the fifth interspace There was a normal sinus rhythm with a rare premature beat A thrill was palpable over the point of maximal impulse, and a grade four rough systolic murmur was heard over the whole precordium, loudest at the apex, and preceded by a snapping first sound in the mitral area. Her abdomen was doughy in consistency, but neither the spleen nor other organs could be felt. Peristalsis was somewhat hyperactive A well-healed suprapubic midline scar was present. There were a few small varicosities on the lower extremities

The red blood cell count was 3,710,000 with 9 6 Gm of hemoglobin The white blood cell count was 14,000 with 76 per cent polymorphonuclears, 22 per cent lymphocytes, 1 per cent monocytes, 1 per cent eosinophils The urinalysis was negative The sedimentation rate (Westergren) was 79 mm. in one hour A stool examination was negative for occult blood A chest film showed moderate generalized enlargement of the heart, with prominence in the region of the left auricular appendage No accentuation of the pulmonary conus, nor any abnormality in the aorta, lungs, or diaphragm was noted. A gastrointestinal series revealed only a ptosis of an atonic stomach. A somewhat enlarged spleen was noted on a flat plate of the abdomen. An electrocardiogram showed a left axis deviation, otherwise a normal record A stool culture was negative for pathogenic organisms Agglutination tests for typhoid, paratyphoid A and B, Brucella, typhus, and tularemia were all negative

On admission, despite the fact that there were no petechiae, nor any evidence of embolic phenomena, the diagnosis of subacute bacterial endocarditis was considered most likely A blood culture taken on admission, and five subsequent cultures during the first week were negative On the third day, the spleen tip was palpable for the first time, and on the following day it was easily palpated. A petechial hemorrhage was noted in the left conjunctiva on the fourth hospital day, but it quickly disappeared Further petechiae appeared on the buccal and conjunctiva membranes in the following two weeks, during which time the patient ran a septic temperature

Treatment at first consisted of salicylates and codeine for relief of headache and abdominal pain, without a noticeable effect on the temperature curve These drugs were discontinued, because of the development of salicylism To combat the secondary anemia, two blood transfusions were given

By the eighth hospital day, despite the fact that all the blood cultures had shown no growth, it was felt that the patient should be treated for subacute bacterial endocarditis She was, therefore, given 50,000 units of penicillin every two hours, for eight days, and then 75,000 units every two hours for five days This was increased to 300,000 units every three hours for three days, but without any effect on the temperature The white count dropped from 14,000 to 6,000

A streptococcus sensitivity test, done on the thirteenth hospital day, showed an immune reaction which was interpreted as presumptive evidence of subacute bacterial endocarditis rather than active rheumatic fever A blood culture, drawn on the fourteenth hospital day, showed a growth twenty-three days later of a gram-negative bacillus This was the only positive culture obtained during the patient's entire hospital course The penicillin was stopped on the twenty-third hospital day in view of the blood culture report of a gram-negative

bacillus, and the patient was given a course of streptomycin (2 Gm. every three hours) and sulfadiazine (1 Gm. every four hours). The blood sulfa level, except for a few days early in the course, was maintained between 10·9 and 17·4 mg. Within twenty-four hours after starting this course of treatment, the temperature fell to normal and remained such thereafter, except for a brief spike to 100 on the thirty-fourth hospital day.

On the twenty-fifth hospital day, a raised, tender, slightly red area about 1 by 2 cm. appeared suddenly on the right palm and was interpreted as an Osler's node. A similar nodule appeared on the surface of the right thumb on the thirty-second day and disappeared a few days later. However, there were no other evidences of embolic phenomena. No toxic manifestations from streptomycin or sulfadiazine were noted. The course of streptomycin and sulfadiazine was continued for twenty-one days. Blood cultures taken at weekly intervals during this period were all negative. The patient improved rapidly, made an uneventful recovery, and was discharged forty-five days after admission. She was seen on several occasions following discharge and had gained weight and had no complaints.

The report of the bacteriologist, Dr. Margaret Upton, on the negative bacillus is as follows: A small gram-negative bacillus was isolated on only one occasion from the blood incubated in thioglycolate medium. The organism grew sparsely under strict anaerobiosis and under carbon dioxide but not aerobically. It would not grow except in the presence of blood, serum, or ascitic fluid. At first it was thought it might be Hemophilus parainfluenzae, but this was disproved at Dr. Alexander's laboratory at Babies Hospital in New York City. The organism did not belong to the Brucella group. The organism remained unidentified and was not recovered again. Although the isolated gram-negative organism was never definitely classified, there is no question that this was the cause of the disease. Penicillin in large doses given for at least two weeks time was ineffectual in altering the course of the disease. The response to streptomycin was dramatic. Within twenty-four hours the temperature fell to normal, the pulse rate became slower, and there was a decided improvement in the patient's general condition.

It seems reasonable to assume that this patient is cured. She has been well since January 5, 1948, the date of her discharge from the hospital. This illustrates the extreme value of streptomycin in the treatment of subacute bacterial endocarditis, a disease which until recent years was almost always fatal.

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MILLIONS FOR TREATMENTS FAIL TO STOP ANNUAL HAIR FALL

Bald and balding American men are spending millions of dollars annually for futile hair-saving and dandruff-curing treatments, says a report of the American Medical Association Committee on Cosmetics in the March 26 issue of the *Journal of the American Medical Association*. Neither massage, mechanical devices, "tonics," ultraviolet light, hormones, vitamins, nor any other treatment will regenerate hair lost in ordinary baldness of older men or in premature baldness of young men, the committee emphasizes.

Although self-designated "hair and scalp specialists" or "trichologists" use high-sounding terms that connote scientific background and training, they are not physicians, and so far as can be determined, have no qualifications other than "a full head of hair, a business brain, and an appetite for easy money," the report says.

Use of preparations containing sulfa drugs not only may cause skin rash but may also preclude future use of the drugs if the person should require them for infection. Hormones are absorbed through the skin and in large enough amounts can cause systemic changes. Injection of vitamins into the scalp is a highly questionable and risky procedure and can have disastrous results.

Although the germ theory of dandruff is popular and is adroitly adjusted to the use of antiseptics in hair tonics, until an organism is proved to be the cause of dandruff and until a drug is found which kills or inhibits that specific organism, this type of advertising is supported only by supposition.

NATIONAL HEALTH SERVICE COSTS GREATLY EXCEED ESTIMATES

Costs of the National Health Service in England have greatly exceeded estimates, official figures just issued by the government show. Writing in the April 2 issue of the *Journal of the American Medical Association*, the regular London correspondent of the Journal says in part:

"All the undertakings of the socialist government show one thing with melancholy monotony—increased cost. The official figures, just issued, for the National Health Service are no exception. The cost of doctors is $118,000,000, an excess of $9,200,000 over the estimate. The cost of dentists is $82,800,000, an increase of $54,600,000. The cost of pharmacists is $70,860,000, an increase of $20,000,000 over the estimate. The cost of opticians is $57,800,000, an excess of $15,000,000 over the estimate. A large part of this vast expenditure is wasted, as is so characteristic of socialist finance."

Special Article

THE NEEDS OF THE ARMY MEDICAL SERVICE, II

COLONEL C J ST JOHN, First Army Surgeon, New York City

ONE of the most critical personnel problems of our national military establishment is that facing the Army Medical Department

If a shortage were allowed to develop, it could become a serious threat to the national defense program The Selective Service Act of 1948 provides that "no person shall be inducted until adequate provision shall have been made for medical care"

The Army and the Air Force will observe that provision They have achieved the highest medical, dental, and health standards in the world, and those standards will not be compromised under any circumstances Instead, the Army and the Air Force will intensify their efforts to obtain volunteers to fill their needs for professional people

In recognition of the gravity of this problem, and of the responsibility of the medical profession as one group to help meet it, the House of Delegates of the American Medical Association approved the following resolution at its annual convention in June, 1948

> *Resolved* That the State and County Medical Societies be urged by the action of the House of Delegates of the American Medical Association to exert every effort in their communities to ensure that a sufficient number of available physicians be encouraged to volunteer to serve their nation during this period of emergency

To meet this urgent problem, the Medical Department has developed a joint program in coordination with several of the national organizations which represent the professions involved This program is now in operation The program is organized to take advantage of the facilities of civilian Military Manpower Committees, which already have been set up in more than 600 cities and towns throughout the country These Committees work with the U S Army and U S Air Force Recruiting Service in mobilizing community support for the Volunteer Enlistment Program

Since the procurement of physicians, dentists, and other professional personnel cannot be conducted satisfactorily by laymen, this program calls for the organization of a subcommittee called the Professional Manpower Committee for each local Military Manpower Committee The Professional Manpower Committee is jointly headed by an outstanding local physician or surgeon and an outstanding dentist They are the local medical and dental professions' representatives on the Manpower Committee They work with the Manpower Committee chairman and representatives of the veterinary, nursing, and other allied professional associations to appoint a member from each group to the Professional Manpower Committee County or state medical and dental societies are being asked to nominate their professional representatives for the joint chairmanship of the Professional Manpower Committee

Members of the Professional Manpower Committee will be expected to serve as local spokesmen for the Army Medical Department and for their respective professions in contacts with local profession school students, interns, residents, and those professional people now engaged in practice Other functions can be suggested for them as the program develops.

A program kit and other printed material useful in setting up and operating the local program will be supplied to each Professional Manpower Committee by the Medical Department through the local U S Army and U S Air Force Recruiting Station

The success of the Professional Manpower Committee Program depends upon the wholehearted support and active cooperation of county and state medical societies It is hoped that the indispensable guidance and assistance only doctors can offer will now, as in the past, be brought to bear, enabling the Army Medical Department to meet its obligations to the people of the United States

39 WHITEHALL STREET
NEW YORK CITY

The first article on this subject appeared in the May 1 issue of the JOURNAL page 1077

MEDICAL CARE DETERIORATES UNDER BRITISH HEALTH SYSTEM

British doctors under the National Health Service are so overworked treating trivial complaints that they do not have time to give satisfactory treatment to seriously ill patients, according to the regular London correspondent of the *Journal of the American Medical Association* In an item appearing in the March 5 issue of the *Journal*, the correspondent says that "demands on doctors' time by hypochondriacs and persons with trivial complaints, who throng their offices because treatment is free, render satisfactory work in cases of real illness difficult or impossible"

Patients demand prescriptions for self-diagnosed nonexistent complaints because this is cheaper than paying for a "cough cure" at the pharmacist's, and also pop in for a "thorough overhaul" because they have missed a train and have an hour to waste, he reports, adding "This is how the grand socialistic ideal of the Minister of Health, 'taking the money factor out of medical treatment,' works. All of these troubles of the National Health Service are the result of forcing such a complex thing as medical practice into the rigid framework of socialism"

SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting on March 10, 1949, the Council considered the following matters, taking action as indicated

Secretary's Report

Remission of Assessments —Remission of annual assessments was voted on account of service with the armed forces for 7 members for 1949, 11 for 1948, and 3 for 1947, one was rescinded On account of illness, annual assessments for 10 members were remitted for 1949 and 9 for 1948, also 33 War Memorial assessments were remitted on account of illness

Dr Simon D Ehrlich, New York County, was nominated for Associate Fellowship in the American Medical Association

Communications —A letter from Dr Charles H Loughran, secretary, Medical Society of the County of Kings, recommended that Alexander Gilligan, Joseph E Golding, Charles T Graham-Rogers, and George W Tong, who have passed the age of seventy, be nominated for retired membership and that their War Memorial assessments be remitted

It was voted that these recommendations be adopted.

It was voted that Dr Harold E Klein, of McLean, have the approval of the Council should he desire to transfer his membership to the Medical Society of the County of Cortland

A letter was also read from Mr Alan O Robinson, executive vice-president, The Yorkshire Indemnity Company of New York, expressing his appreciation for the resolution adopted at the February 10, 1949, Council meeting

A resolution passed by the Medical Society of the County of Kings disapproving the National Physicians Committee, February 15, 1949, was read for information

It was voted that a letter from Dr Harry Golembe of Liberty be answered by Mr Martin and Dr Anderton, stating (1) that the Medical Society of the State of New York has no policy regarding appointment of osteopathic physicians to hospital staffs, because conditions vary in different parts of the State, and (2) that the American College of Surgeons does not give its approval to hospitals that have osteopaths on their staffs

At the meeting of the Board of Trustees, February 10, 1949, an amount not to exceed $1,500 was voted to defray the expenses of Mr William Martin, counsel, and Mr H F Wanvig, authorized indemnity representative, to visit and study the methods of preventing malpractice law suits by the Alameda (California) County Medical Association

In spite of certain outspoken, antagonistic influences, this office has received many checks for the American Medical Association A week ago approximately 5,000 checks had been forwarded to Chicago Quite a number of letters and telephone calls regarding this assessment have been answered by your Secretary

Treasurer's Report was accepted

Report of the Executive Officer

Dr Hannon reported a hectic legislative session He stated that a number of bills had been introduced that were of interest to the State Society and a few had presented difficult problems, especially the Mahoney Bill in regard to narcotic addicts

Reports of Committees

Legislation —Dr Simpson introduced Mr John H Hanly, of the Federal Narcotic Control Later Dr Hollis Ingraham, of the State Health Department, addressed the Council Dr Simpson stated that the question at issue is simply this that our Conference of County Legislative Chairmen in Albany voted to oppose this bill The State Health Department apparently also opposes it Mr Hanly of the Federal Narcotics Bureau has given his view It is a matter for the Council to decide for Dr Hannon whether we shall uphold the action of the Legislative Chairmen of the County Societies in continuing to oppose this measure until such time as further study has been made, or whether we should rescind the motion of the County Legislative Chairmen in their recommendation to Dr Hannon

It was voted, in view of the information presented, that the Council reaffirms the position taken by the County Legislative Chairmen and sustains their action

Constitution and Bylaws —

It was voted to approve the proposed by laws of the Medical Society of the County of Albany with changes as recommended by Dr Reuling, chairman

Economics.—Dr Wertz, chairman, reported regarding meetings Mr Farrell, the director of the Bureau of Medical Care Insurance, had attended A meeting of the Subcommittee on Medical Expense Insurance and presidents or representatives of plans was held in the Society offices, February 25, 1949

After discussion,

It was voted (1) to accept in principle the recommendations of the Subcommittee, (2) to favor a contract with State-wide coverage offered by the various plans, and (3) that the Committee formulate such a contract on a service basis

Dr Wertz stated a letter and 10-point program from Dr Gilson Colby Engel, president of the Medical Society of the State of Pennsylvania, had been presented at the February Council meeting and was up for consideration today

After discussion,

It was voted to acknowledge Dr Engel's letter and to suggest that his program be revised to be in accord with the 12-point program of the A M A

Planning Committee for Medical Policies —Dr Kenney, chairman, reported that a subcommittee representing the Planning Committee and the Joint Council of Anesthesiologists, Pathologists, Roentgenologists, and Physical Therapy Physicians met with Deputy Attorney General Ruth Toch on February 21 and discussed the matter of medical services in hospital contracts

Publication —Dr Kosmak, chairman, reported that the *Directory* was being distributed

Public Health and Education.—A letter from Dr Post, acting chairman, explained the activities of the Committee

Dr Masterson, chairman of a Special Committee to Select a Chairman of the Committee on Public Health and Education, recommended that Dr Theodore J Curphey be appointed and that the office be moved to Nassau County

This was voted by the Council

Public Relations.—Dr Winslow, chairman, re-

ported the activities and immediate objectives of this Committee

Dr Winslow proposed the following resolution

WHEREAS, there are now before the Congress of the United States several bills embodying the principal of compulsory health insurance whose professed purpose is to provide a national health insurance and public health program, and

WHEREAS, it has been demonstrated in other countries that compulsory health insurance leads to the deterioration of standards of health, the quality of medical care, and the scientific medical facilities wherever it has been adopted, thus constituting a grave threat to the maintenance of the present high level of medical service which in the United States has become the best in the world under free enterprise, and

WHEREAS, compulsory health insurance would impair the relationship between doctor and patient, bring about the control of American medicine by a Federal bureaucracy, entail an undetermined payroll tax upon the wage earner and a concomitant drain upon the general revenue of unspecified proportions, and

WHEREAS, an extension of medical services to the American people can be provided without the adoption of compulsory health insurance through the expansion of facilities, research, health education, and similar measures as advocated in the 12-point program adopted by the American Medical Association, and the encouragement of voluntary prepaid medical care insurance plans which provide the public the opportunity to budget for the expenses of medical care without dictation by the government, now, therefore

Be it resolved by the members of the Council of the Medical Society of the State of New York

1 That they hereby go on record against any form of compulsory health insurance or any system of political medicine that is now or hereafter may be introduced before the Congress of the United States,

2 That a copy of this resolution be forwarded to the President of the United States, to each Senator and Representative from the State of New York, and that said Senators and Representatives be and are hereby respectfully requested to use every effort at their command to prevent the enactment of such legislation

It was voted unanimously that the above resolution be adopted

Office Administration and Policies—Dr Anderton reported that the Office Administration and Policies Committee recommends to the Council that membership records be under the joint jurisdiction of the Treasurer and Secretary of the Society

This was approved

Veterans Administration, Liaison with the—Dr Anderton reported for Dr Bauckus, chairman, that the Liaison Committee with the Veterans Administration met last evening for almost three hours

There was a discussion of certain fee changes in Part 2 of the schedule now considered part of the contract with Veterans Administration

A motion was passed by the Committee authorizing Dr Bauckus to discuss the disputed fees with Veterans Administration, also that Part 2 of the schedule be accepted as amended, pending decision on fees in dispute

It was also recommended that the Committee reserve the right to renegotiate disputed fees if not accepted by Veterans Administration, before any commitments are made

It was voted that the recommendations be approved.

Dr Anderton continued "There was a discussion of a directive sent out stating in part 'If appointive clerk, or group, or unit cannot accommodate veteran within two weeks, it will be considered hardship, and veteran will be referred to group chief who will determine kind and frequency of treatment, and may recommend to authorizing group who in turn will arrange for care by physician designated by Veterans Administration, with no privilege of selection by patient'

"It was moved and carried that a recommendation go to the Board of Directors disagreeing with this directive and urging that such practice be rescinded, and the matter referred to the Council."

It was voted that this recommendation be approved.

As a result of a letter to the Society from Senator Pepper inviting a representative to appear before the Subcommittee of the Committee on Labor and Public Welfare on Monday, March 21, at 11 A.M., it was proposed to send to Senator Pepper the following reply

> The Council of the Medical Society of the State of New York at its regular monthly meeting held here March 10 directed me to inform you that the Society is in favor of the proposed curtailment of the veterans hospital construction program so far as it relates to New York State, for the reason that existing facilities in veterans hospitals and general hospitals, together with the opportunity for medical care by veterans own personal physicians under the plan as set up in this State, are sufficient to make the best hospital and medical care available for veterans
>
> In view of our position on this matter, it is not considered necessary to send a representative to attend the public hearing on March 21
>
> Seventy-five copies of this letter are going to you today as our statement
>
> Very truly yours,
>
> W P ANDERTON, M D, *Secretary*
> Medical Society of the State of New York

It was voted that this communication and the report as a whole be approved

Woman's Auxiliary—Dr Beekman, chairman, read a letter sent to presidents of county auxiliaries by Mrs Edgar M Neptune, State Auxiliary president, entitled "American Medicine Is Faced with a Crisis"

Workmen's Compensation.—Dr Kenney, chairman, reported considerable unrest throughout the State relative to the fee schedule of June 1, 1947, for general practitioners, that his committee was working with the chairman of the Compensation Board, and that he hoped final interpretation of the disputed points would be ready before the House of Delegates meets

New Business

Renewal of Contracts for Mr Anderson.—Dr Masterson reported that Mr Dwight Anderson's contracts with the Society expire July 1 He moved that the Council recommend to the Trustees renewal under the same terms and conditions

This was voted

NECROLOGY

William Henry Beattie, M D , of Utica, died on April 19 at his home at the age of seventy-two Dr Beattie received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1903 and was former chief of staff of the Soldiers and Sailors Hospital, Utica, which is operated by the Grand Lodge of Masons of New York. Honorary ophthalmologist and otolaryngologist at St Elizabeth's Hospital, Utica, he was a member of the American Academy of Ophthalmology and Otolaryngology, the Utica Academy of Medicine, the New York State and Oneida County Medical Societies, and the American Medical Association.

Emelyn Lincoln Coolidge, M D , pediatrician and author, died April 14 at her home in New York City She was seventy-five Dr Coolidge attended Woman's Medical College in New York City and obtained her medical degree from Cornell University Medical College in 1900 She was formerly assistant superintendent, acting superintendent, and resident and visiting physician at Babies Hospital and pediatrician to the Society of the Lying-in Hospital.

Concurrently with her medical practice, Dr Coolidge engaged in writing activities, conducting the "Baby's Page" in the *Ladies' Home Journal* from 1902 to 1921, and serving as editor of the babies' department in the *Pictorial Review* from 1921 to 1937 She was the author of *How to Feed the Baby from Birth to Three, The Mother's Manual, First Aid in Nursery Ailments, The Home Care of Sick Children,* and *The Young Mother's Guide* She was a member of the Alumni Society of Babies Hospital.

Chester Charles Cott, M.D , of Buffalo, died on December 4, 1948, at the age of sixty-seven A graduate of the University of Buffalo Medical School in 1908, he was attending otolaryngologist at Buffalo General Hospital and consulting otologist at Meyer Memorial Hospital, Buffalo He was a member of the Buffalo Academy of Medicine, the American Academy of Ophthalmology and Otolaryngology, a fellow of the American College of Surgeons, and belonged to the New York State and Erie County Medical Societies and the American Medical Association.

Virginia Meriwether Davies, M.D , eighty-seven, a practicing physician for the last sixty-three years and said to have been the oldest practicing woman physician in New York State, died at her home in Conger on April 21 Dr Davies was graduated from the Medical College of the New York Infirmary in 1886, and for four years was head of the New York Infant Asylum. During the blizzard of 1888 she led a group who tunneled through an 18-foot snowdrift to get milk after supplies had been cut off for two days

In 1892 Dr Davies decided to retire from practice, and she and her husband purchased a farm in Congers She was soon drafted back into medical practice, however, by neighboring stone quarries, ice plants, brick yards, and other industrial plants, which had frequent accidents She finally opened a medical office at her farm, and continued her practice It was estimated that she had delivered more than 6,000 babies in her career

John Horni, M.D , Brooklyn, who retired in 1946 after fifty years of practice, died at his home April 18 at the age of seventy-five A graduate of the College of Physicians and Surgeons, Columbia University, in 1896, Dr Horni was consulting surgeon at Beth Moses Hospital, and attending surgeon at Bethany Deaconess Hospital He was a member of the Brooklyn Surgical Society, the Pan-American Medical Society, the Association of Physicians of Long Island, the Doctors' Club of Brooklyn, and was a fellow of the American College of Surgeons Dr Horni also belonged to the New York State and Kings County Medical Societies, and the American Medical Association

Myron Robinson Jackson, M.D , fifty-four, died on April 15 at his home in Oyster Bay of a heart attack, just after he had completed his visits to patients Dr Jackson was graduated from the Cornell University Medical College in 1932 and interned at Bellevue Hospital, after which he went to Oyster Bay and began his practice He was attending surgeon at the North Country Community Hospital, Glen Cove, where he had at one time served as chief of the surgical service, and was attending surgeon and gynecologist at Meadowbrook Hospital in East Hempstead

A fellow of the American College of Surgeons, Dr Jackson was a director of the Meadowbrook Hospital, a member of the Nassau County Surgical Society, the Nassau County Cancer Society, the New York State and Nassau County Medical Societies, and the American Medical Association

Phyllis Schuyler Kerr, M.D , White Plains, died April 12 at Doctors Hospital, New York City, after a long illness She was fifty-four A graduate of the Rush Medical College of Chicago in 1928, Dr Kerr interned at the Wisconsin General Hospital in Madison, and was a resident physician at the New York Post-Graduate Hospital from 1928 to 1940 She had been a practicing dermatologist in White Plains since 1936 and was clinical syphilologist and head of the women's health clinic for the Westchester County Department of Health

Dr Kerr was associate physician at the Tarrytown Hospital attending dermatologist at the White Plains Hospital, consulting dermatologist at the New York Hospital, Westchester Division, in White Plains, and attending dermatologist at Lawrence Hospital, Bronxville A diplomate of the American Board of Dermatology and Syphilology, she was a member of the Society of Investigative Dermatology, the Westchester Tuberculosis and Public Health Association, the New York State and Westchester County Medical Societies, and the American Medical Association

John Joseph McMahon, M.D , seventy-one, died suddenly of a heart attack on April 13 in New York City A graduate of the Toronto University Medical School in 1899, Dr McMahon would have completed fifty years of practice in New York City in June A fellow of the American College of Surgeons, he was consulting obstetrician at Misericordia Hospital, New York City, and St John's Hospital, Long Island City, and attending obstetrician at St Clare's Hospital, New York City He had formerly served as president of the medical board of St. John's Hospital and director of the hospital's obstetrics division Dr McMahon was a member of the New

York State and County Medical Societies and the American Medical Association

Vincent Joseph Moore, M D, Buffalo, died on November 19, 1948, at the age of fifty-two He was graduated from the University of Buffalo School of Medicine in 1923 and was attending radiologist at Mercy Hospital, Buffalo, and consulting radiologist at Adam Memorial Hospital, Perrysburg, and Our Lady of Victory Hospital, Lackawanna Dr Moore was a member of the Radiological Society of North America, the Buffalo Radiology Society, the Buffalo Academy of Medicine, the New York State and Erie County Medical Societies, and the American Medical Association

Robert Joseph O'Brien, M D, retired Watervliet physician, died on April 13, in Troy He was seventy-three A graduate of the Albany Medical College in 1904, Dr O'Brien served as chairman of the Watervliet draft board during World War II and was medical examiner for the draft board during World War I He was active in fraternal organizations and civic affairs

Irving Hotchkiss Pardee, M.D, fifty-seven, died on April 10 in New York City after a brief illness Dr Pardee received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1915, and interned at St Luke's Hospital and the Neurological Institute, Presbyterian Hospital Dr Pardee was attending neurologist at St Luke's Hospital, director of its neurological clinic, and secretary of the hospital's medical board, director of the service of neurology and attending neurologist at the Neurological Institute, Presbyterian Hospital, and professor of neurology and executive officer of the department of neurology at Columbia University He was consulting neurologist at the Hospital for Special Surgery, New York City, the Yonkers General Hospital, the Tuxedo Memorial Hospital, and the North Country Community Hospital, Glen Cove

During World War I, Dr Pardee was a lieutenant in the Medical Corps A former president of the New York Neurological Society and a former vice-president of the American Neurological Association, he was a member of the New York Academy of Medicine, the Association for Research in Nervous and Mental Diseases, the Association for Research in Internal Secretions, the New York State and County Medical Societies, and the American Medical Association, and was a diplomate of the American Board of Neurology and Psychiatry

Eugene Hillhouse Pool, M D, New York City surgeon, died at his home in Locust Valley on April 9 after a heart attack. He was seventy-five Dr Pool was graduated from the College of Physicians and Surgeons, Columbia University, in 1899, and joined the college staff in 1901, resigning in 1937 when he was clinical professor of surgery Before his retirement from practice in 1940, Dr Pool was professor of clinical surgery at the Cornell University Medical College, senior attending surgeon of the New York Hospital, and surgeon-in-chief emeritus at the Hospital for the Ruptured and Crippled, New York City

He was consulting surgeon at the following hospitals Presbyterian, French, Harlem, Woman's, the New York Infirmary for Women and Children, and the New York Eye and Ear Infirmary, all in New York City, the North Country Community, Glen Cove, the Elizabeth A Horton Memorial, Middletown, United, Port Chester, and the Central Islip State Hospital

Dr Pool served with the Army Medical Corps in World War I as a lieutenant colonel and was director of surgery in Army hospitals during the St Mihiel and Meuse-Argonne offensives For that work he was decorated with the Distinguished Service Medal In 1933 Governor Lehman appointed him chairman of a committee that studied medical abuses in connection with the administration of the Workmen's Compensation Law, and in 1934 the New York City Commissioner of Hospitals, Dr S S Goldwater, appointed him administrative consultant in surgery for all city hospitals

Dr Pool was inaugurated as president of the New York Academy of Medicine in 1935, and in 1936 was elected president of the American College of Surgeons A life trustee of Columbia University, he was awarded the Columbia University Alumni Federation's gold medal, in 1944, for distinguished contributions to the university Dr Pool was a fellow of the American College of Surgeons, and a member of the New York, American, and International Surgical Associations, the New York State and County Medical Societies, and the American Medical Association

Anna Martin Ralston, M.D, Brooklyn, died on March 10, 1949, at the age of seventy-three Dr Ralston was graduated from the New York Eclectic Medical College in 1896 and retired from active practice ten years ago She was a member of the New York State and Kings County Medical Societies, and the American Medical Association.

Thomas Avery Rogers, M D, seventy-six, of Plattsburg, died recently Dr Rogers was graduated from the Albany Medical College in 1896 and was honorary ophthalmologist and otolaryngologist at Champlain Valley and Physicians Hospitals in Plattsburg, and consulting physician at Dannemora State Hospital He was a member of the New York State and Clinton County Medical Societies, and of the American Medical Association

Leopold Miller Rohr, M D, Jamaica, a physician in New York for almost forty years, died April 6 in the Naval Hospital, St Albans, after a long illness He received his medical degree from the New York University and Bellevue Medical School in 1908 and became an inspector for the New York City Health Department in 1911 Later he was in charge of child hygiene in Brooklyn, chief medical supervisor, and a district health officer Dr Rohr was medical examiner and consultant of the Society for the Prevention of Cruelty to Children and a medical examiner for the Metropolitan Life Insurance Company During World War I he served with the Army Medical Corps as a captain and later was a colonel in the Medical Reserve Corps

Walter Howard Sanford, M D, died on December 13, 1948 A graduate of Albany Medical College in 1899, he was attending pathologist at Manhattan State Hospital, Wards Island

W Reynolds Shetterly, M D, Brooklyn, died on January 7 He was graduated from the Medical College of Ohio in 1890 and was consulting physician at the Lutheran Hospital of Manhattan He was a member of the New York State and Kings County Medical Societies and the American Medical Association

Alfred Wolff, M D, sixty-four, died February 22 in Brooklyn He was graduated from Heidelberg University in 1910 and was clinical assistant obstetrician and gynecologist at the Israel Zion Hospital Dispensary Dr Wolff was a member of the New York State and Kings County Medical Societies and the American Medical Association

MEDICAL NEWS

A M A Convenes June 6

THE ninety-eighth annual session of the American Medical Association will be held from June 6 through 10 in Atlantic City, New Jersey The House of Delegates will convene at 10 00 A M Monday, June 6

The Scientific Assembly of the Association will open with the General Scientific Meetings on Monday, June 6, starting at 2 00 P M and continuing through the morning and afternoon of June 7 The scientific sections will meet Wednesday Thursday, and Friday, June 8, 9, and 10 The Inauguration Meeting at which the president will be installed will be held on Tuesday, June 7

The Registration Bureau will be open from 8 30 A.M. to 5 30 P M , June 6 to 9, and from 8 30 to 12 NOON on June 10 The Bureau will be located in Convention Hall.

Especially significant at this session will be the television programs devoted to newer discoveries in the use of the roentgen ray and to surgical procedures

Among those taking part in the Scientific Assembly are the following New York physicians

General Scientific Meetings—Dr Howard A. Rusk, "Dynamic Approach to Chronic Disease."

Section on Internal Medicine—Dr Charles A. Ragan, "The General Management of Rheumatoid Arthritis", Dr Richard A Freyberg, 'The Present Status of Gold Therapy in Rheumatoid Arthritis"

Section on Surgery, General and Abdominal—Dr William F MacFee, "Painless Jaundice," Chairman's Address

Section on Obstetrics and Gynecology—Dr Joseph J Bunim, "Rheumatic Heart Disease in Pregnancy"

Section on Ophthalmology—Dr Daniel B Kirby 'The Use of Curare in Intraocular Surgery The Value of Curare for General Akinesia in Intraocular Surgery"

Section on Laryngology, Otology, and Rhinology—Dr Daniel S Cunning, "Diagnosis and Treatment of Laryngeal Tumors"

Section on Pediatrics—Dr John P Caffey, "Congenital Obstruction of the Alimentary Tract", Dr Charles Hendee Smith, "Evils of Thumb Sucking"

Section on Experimental Medicine and Therapeutics—Dr Walsh McDermott, "The Relation of Streptomycin Dosage to Toxicity and to Emergence of Resistant Organisms", Dr Randolph West, "The Treatment of Addisonian Pernicious Anemia with Vitamin B_{12}", Dr Harry Gold, "Some Observations on Digitoxin and Other Glycosides of the Digitalis Series."

Section on Pathology and Physiology—Drs Henry Horn and Leonard E Field, "The Pathology and Physiology of Acute Coronary Insufficiency", Dr Franklin M Hanger, "Diagnostic Problems in Jaundice."

Section on Nervous and Mental Diseases—Drs Lawrence I. Kaplan and Foster Kennedy, "The Effect of Head Posture on C S F Manometrics in Cervical Lesions A New Diagnostic Test", Dr Paul H. Hoch, "Theoretical Aspects of Prefrontal Lobotomy and Similar Operations", Dr Irving J Sands, "Practical Considerations in the Treatment of Mentally Ill"

Section on Dermatology and Syphilology—Dr Anthony C Cipollaro, "Dermatology and Syphilology in a Modern Medical Program," Chairman's Address, Dr L P Barker, "Rickettsialpox", Dr G M Lewis, "Antihistamine Therapy in Dermatology", Dr E F Traub, "The Benign Pigmented Epithelial Nevus"

Section on Preventive and Industrial Medicine and Public Health—Dr George A. Wright, "Disability Evaluation in Occupational Pulmonary Disease", Dr George M Wheatley "Why School Health Service?", Dr Herman E Hilleboe, 'The Exact Diagnosis of Pulmonary Tuberculosis"

Section on Urology—Dr J Sydney Ritter, "Vesical Neoplasms of the Female Bladder A Suggested Surgical Technic", Dr Herbert R. Kenyon, "The Technic for Immediate Diagnosis and Management of Vesical or Urethral Perforations in the Course of Transurethral Procedures"

Section on Orthopedic Surgery—Drs. Paul Strassburger C Zent Garber, and Halford Hallock, "Fibrous Dysplasia of Bone", Dr David M Bosworth, Chairman's Address, Dr Frederick M Smith, 'Injuries of the Medical Epicondyle of the Humerus", Drs Alan DeF Smith and Horace I Yu, "Streptomycin Combined with Surgery in the Treatment of Bone and Joint Tuberculosis"

Section on Gastroenterology and Proctology—Dr Edwin Boros, "The Role of the Esophagus in Local and Systemic Disease", Drs William J Grace, Stewart G Wolf, Jr , and Harold Wolff, "Changes in Colon Accompanying Varying Emotional States.'

Section on Radiology—Dr H Marks, "Eradication and/or Palliation of Advanced and Radioresistant Tumors by Multicentric Irradiation", Dr Anna Goldfeder, "Relative Radiosensitivities of Analogous Mammary Tumors"

Section on Anesthesiology—Dr David J Graubard, "The Use of Intravenous Procaine in the Management of Arthritis", Dr Clarence L Hebert "Complications of Spinal Anesthesia An Evaluation of Complications Encountered in 7,000 Patients"

Section on General Practice—Drs. Chester H Adams and Russell L. Cecil, "Results of Gold Therapy in Early Cases of Rheumatoid Arthritis", Drs Arthur M Master and Simon Dack, "Diagnosis and Treatment of Acute Coronary Diseases"

Section on Diseases of the Chest—Dr H McLeod Riggins, "Streptomycin and Dihydrostreptomycin in the Treatment of Tuberculosis", Dr Edgar Mayer, "Pulmonary Emphysema."

Session on Physical Medicine and Rehabilitation—Drs. Howard A. Rusk and Samuel S Sverdlik, "The Rehabilitation of Quadriplegics", Dr George G Deaver, "What Every Physician Should Know About the Teaching of Crutch Walking", Dr Hans Kraus, "What Every Physician Should Know About the Physical Treatment of Backache", Dr Robert C Darling, "What Every Physician Should Know About Physical Fitness", Dr Donald A Covalt, "What Every Physician Should Know About Physical Medicine and Rehabilitation for Industrial Injuries"

Session on Allergy—Dr Bret Ratner, "Asthma in Children Salient Diagnostic Problems"

Research Awards by American Heart Association

RESEARCH awards totaling $250,000 have been allocated by the American Heart Association to 26 investigators and six medical schools and hospitals for studies in heart and circulatory disease, it was announced recently by Mr A W Robertson, chairman of the board The awards included two to established investigators engaged in independent research, 24 research fellowships to younger scientists, six grants-in-aid to institutions, and provision of additional funds for basic research and cooperative research studies

The six grants-in-aid, totaling $46,210, include a grant to Syracuse University College of Medicine for study on the nervous and hormonal control of intrarenal blood flow, under the supervision of Dr O W Sartorius

Among those receiving the 25 research fellowships, totaling $103,800, in New York State were the following

George R Denton, Albany Medical College, surgery

L C Mark, New York University Research Service, Goldwater Memorial Hospital, cardiac arrhythmias

A Mascatello, Long Island College of Medicine pharmacology

L S Sommer, College of Physicians and Surgeons, Columbia University, physiology

A P Fishman, Mount Sinai Hospital, physiology

A G White, Montefiore Hospital, congestive heart failure

Brooklyn Opens First Nutrition Clinic

BROOKLYN recently acquired its first nutrition clinic to curb nutritional abnormalities in children

Dr Harry S Mustard, Health Commissioner, and the clinic's founder, Dr Norman Jolliffe, director of the Health Department's Bureau of Nutrition, joined civic and school representatives in dedicating the clinic in the Red Hook Gowanus District Health Center at 250 Baltic Street Describing the center as a great step forward in the preventive medicine program conducted by the Health Department, Dr Mustard announced that four more nutrition clinics would open in the coming year

Although designed primarily to serve children of low-income groups in the Red Hook and Gowanus areas of Brooklyn, Dr Jolliffe emphasized that the clinic would not be confined to them Individuals may be referred to the clinic through school health service, welfare agencies, private physicians, and other clinics, Dr Jolliffe said While low-income patients will receive treatment at the clinic, others will have reports sent back to their own physicians or other authorities

Clinic treatment will include a thorough medical examination, a chest x-ray, and special diet and laboratory tests Low-income bracket patients will receive follow-up treatment at the clinic

The clinic's services will be directed toward the school child and expectant mothers in the prenatal group, Dr Jolliffe added Prenatal care, he said, "goes hand in hand with nutrition"

Dr Jolliffe said that patients would be seen by appointment at the clinic, open on Mondays and Thursdays from 1 to 4 P M Dr Robert W Hillman is in charge.

Dr Jesse B Aronson, district health officer of the Red Hook Gowanus Health District, who presided, said visits to the child health station totaled 16,000 last year Cardiac cases doubled last year to nearly 3,000, while 10,500 persons made tuberculosis visits.

The next nutrition clinic will be opened at Amsterdam Houses on May 16, Dr Jolliffe announced.

MEDICALLY SPEAKING—

New York State Nurse Practice Act—It is now mandatory in New York State that all who nurse for hire must be licensed either as a registered professional nurse or a licensed practical nurse If any nurse anticipates working in New York State, she should make application for licensure *before* coming to the State Communications should be addressed to Miss Clara Quereau, Secretary, Board of Examiners of Nurses, Room 413, 23 South Pearl Street, Albany

Queens Physicians Division of United Jewish Appeal—More than $75,000 was collected at the annual dinner of the Queens Physicians Division of the United Jewish Appeal on April 21 at the Queens County Medical Society Building In announcing the total at the end of the dinner, Dr Elias Rubin, chairman of the Division, declared that other members of the profession throughout the borough would be given further opportunity to contribute during the course of the campaign.

One hundred and fifty Queens physicians listened with interest to the stories of heroism in war and peace told by Lt Azaria Rapoport, Israeli soldier and war correspondent, who participated in key battles with the Arabs

The vice-chairmen who assisted Dr Rubin in planning and carrying out the 1949 drive to date are Drs Albert J Aptaker, Julius Bleankfein, Daniel I Chillag, Moses Cohen, Samuel Dillon, Albert H Douglas, Harry H. Epstein, Arthur Feder, Henry I Fineberg, Arthur A Fischl, Harold Fruchter, Benjamin F Glasser, Sidney Hirsch, Daniel R. Kaufman, Harry L Kava, Samuel Klein, Allen Putterman, David M Raskind, Joseph Rosenthal, Louis I Siegel, Eugene S Spencer, Mandel Weinstein, David Warshaw, and Robert R Yanover

Compulsory Health Insurance Opposed by Catholics—The Truman Administration's national health insurance program would make health care "practically a Government monopoly," three prominent Roman Catholic welfare groups asserted last month in advancing an alternative plan

Patterned closely along lines proposed by the American Medical Association, this plan would commit the Federal government to spending about $2,150,000,000 a year in an effort to expand health care through broader enrollment in existing voluntary insurance systems

The Catholic program was put forth by the bureau of health and hospitals of the National Catholic

Welfare Conference, the National Conference of Catholic Charities, and the Catholic Hospital Association

A.M.A. Bureau Director Serves in Germany—Dr W W Bauer, Chicago, director of the American Medical Association Bureau of Health Education, sailed for Germany March 22 to consult with U S Military Government officials and with the German medical profession about the rehabilitation of postwar German medicine, especially with relation to public health and health education

Dr Bauer's services have been loaned by the American Medical Association to the U S Department of the Army He is scheduled to serve in Germany three months, returning by way of London, where he will spend a few days observing British health and medical systems

Speakers' "Briefing Sessions"—In order to provide assistance to doctors who are making public appearances in opposition to compulsory health insurance, the Committee on Public Relations of the New York State Medical Society scheduled two "briefing sessions," one on April 10 in New York City, and the other on May 14 in Rochester The meeting in New York, in the Hotel Commodore, was limited to representatives of county societies in the First, Second, Third, and Fourth District Branches The meeting in Rochester, in the Hotel Seneca, was for the remaining counties, attendance by invitation according to quotas based on population.

Professor Richard C Reager, of Rutgers University Department of Speech, conducted both sessions, placing emphasis on both the content of speeches and the manner of delivery

Due to the interest expressed by the State organizations of dentists and retail druggists in aiding the medical profession in its fight against government medicine, representatives of these organizations were also invited to attend.

Change in Regulations of the American Board of Orthopaedic Surgery, Inc.—A change in the regulations of the American Board of Orthopaedic Surgery, Inc , reads as follows

(2) Examination, Part I

(a) Eligibility for Examination, Part I Beginning in the year 1952 the minimum requirements for eligibility for examination, Part I, shall consist of completion of an internship, a year of resident training in general surgery, and *two* years of resident training in orthopaedic surgery on an approved service

Applicants filing in 1951 for examination, Part I, to be given in 1952 are subject to these minimum requirements

Public Relations Committees List Grows—The determination of the medical profession to organize its resources to combat compulsory health insurance is reflected in the number of county society public relations committees whose appointments have been reported to the State Society's executive offices There are now 29 such committees in the following counties Albany, Broome, Cayuga, Chenango, Clinton, Columbia, Cortland, Delaware, Dutchess, Jefferson, Madison, Monroe, Montomery, New York, Niagara, Oneida, Onondaga, Ontario, Orange, Putnam, Rensselaer, Rockland, Saratoga, Seneca, Steuben, Suffolk, Tompkins, Ulster, and Warren

In addition, there are seven county societies with executive personnel who function as public relations representatives The names of public relations committee members in any county not on the above list should be reported to the State Society

Federal Emergency Maternity and Infant Care Program—Physicians caring for, or who have previously cared for, patients under the Federal Emergency Maternity and Infant Care Program, are reminded that the program is to terminate completely on June 20, 1949

Under the regulations of the United States Children's Bureau, the New York State Department of Health has not been able to issue authorizations for maternity care since June 30, 1948 Health supervision to eligible infants was still provided under this program through April 19, 1949, and sick care may be provided if authorized on or before that date All requests for authorization for care for eligible infants must be received by the State Department of Health by May 19, 1949, as no authorizations may be issued after that date

The State Department of Health will be able to act upon requests for payment for services previously rendered for maternity or infant care until June 20, 1949 After this date the Federal funds available for such payments will be recalled, and no further payments can be made

Health and Welfare Division of Metropolitan Life Marks Anniversary—The year 1949 marks the fortieth anniversary of the Health and Welfare Division of the Metropolitan Life Insurance Company An anniversary report, *40 Years of Health Campaigning*, presents briefly some aspects of the Metropolitan's contribution to the outstanding results of forty years of cooperative public health effort by voluntary and official health and welfare agencies—for example, nearly a billion and a half health and safety pamphlets distributed, more than a hundred million nursing visits made to eligible policyholders, and Metropolitan's motion pictures shown to an audience of more than 147,000,000

New York County's "Minute Men"—Great progress in meeting demands for speakers against compulsory health insurance is being made by a group of New York County physicians who have banded together under the name of the "Minute Men." This group, consisting of volunteers from the county society, meets once a week to compare notes and polish up materials Enthusiasm is running high, and the results are becoming apparent

Dr Baumgartner Appointed to Federal Post—Dr Leona Baumgartner, assistant commissioner of health for New York City, has been named to succeed Dr Martha Eliot, deputy chief of the Federal Children's Bureau. The latter resigned after service of twenty-five years and will become assistant director-general of the World Health Organization with headquarters in Geneva. Dr Baumgartner will assume her new duties on June 1

Television Schedules Series on Research in Diseases of Childhood—Recent medical research aimed at the prevention and cure of childhood diseases will be the subject of a series of programs scheduled for Station WNBT and featuring Dr L Emmett Holt, Jr , professor of pediatrics, New York University College of Medicine, and director of the Children's Medical Service, Bellevue Hospital.

Accompanied by a group of staff doctors from the Department of Pediatrics of the College, Dr Holt will appear on "Meet the Experts," with Eloise McElhone as master of ceremonies, from 3 15 to 3 45 P M. on May 24 and June 7

Establishment of National Institute of Mental Health Announced—Establishment of a National Institute of Mental Health to intensify efforts toward the prevention, control, and treatment of mental illness was announced by Surgeon General Leonard A. Scheele of the Public Health Service, Federal Security Agency

The new institute, which was authorized by the 79th Congress, has been created in the National Institutes of Health, research branch of the Service It will continue the program formerly carried out by the Division of Mental Hygiene in the administration of the Mental Health Act of 1946 This program is specifically directed toward gaining more knowledge of the cause, prevention, and control of mental illness, training of personnel, and developing community mental health facilities

Dr Robert H Felix, chief of the division of Mental Hygiene since 1944, has been appointed director of the National Institute of Mental Health, and the Division of Mental Hygiene has been abolished

Blue Shield Growth Compares Favorably with Blue Cross in 1948—Net growth in 1948 for 46 Blue Shield Plans, which were coordinated with 55 Blue Cross Plans, reached a total of 2,699,909 members, as compared with a net growth of 2,501,134 members for the coordinated Blue Cross Plans Blue Shield Growth, for the Plans indicated above, was 107 95 per cent of the total credited to Blue Cross

Total net growth in 1948 for all nonprofit medical care plans reporting to Associated Medical Care Plans totaled 3,130,038, including enrollment figures from 71 Plans, which was 84 9 per cent of the net growth for 90 Blue Cross Plans, totaling 3,686,879 for the same period

Membership in the 46 Blue Shield Plans stood at 8,606,117 at the end of 1948, which was 35 44 per cent of the 24,281,579 members enrolled by the 55 Blue Cross Plans with which they were coordinated

Total membership for the 71 Plans reporting to Blue Shield was 10,367,464 at the end of 1948, which was 31 42 per cent of the 32,997,161 enrolled by 90 Blue Cross Plans

Conclusions drawn from the enrollment studies recently completed indicate a somewhat faster rate of growth for Blue Shield Plans which are coordinated with Blue Cross than for those which are not coordinated

New Public Relations Bureau Pamphlets Ready—Several new printed pamphlets, produced by the Public Relations Bureau of the State Medical Society, are now available for distribution in quantity to county societies and individual doctors

They are as follows *A Bitter Pill*—a brief, simple pamphlet stating the dangers of government medicine and the value of voluntary medical care insurance Produced for distribution to the public through doctors' offices and at public gatherings, *What People Are Writing to Their Congressmen*—a compilation of excerpts from letters protesting the compulsory health insurance principle These excerpts are offered as guides to persons who find it difficult to express their sentiments They should not be broadcast indiscriminately, but used where and when needed, two reprints from the New York *Daily News* *Uncle Sam, M D—Not Free, Not Cheap*, and *Dr John Bull* These editorial comments speak for themselves

Also ready for distribution are quick reference sheets that will enable any resident of New York State to determine the name and address of his representatives in Congress

Make known your wants by addressing the Public Relations Bureau, *Medical Society of the State of New York*, 292 Madison Ave , New York 17

Course in Diseases of the Cardiovascular System Offered—The New York Medical College, Flower and Fifth Avenue Hospitals, in conjunction with the New York State Department of Health and the New York City Department of Health, will present a short course in "Diseases of the Cardiovascular System" for general practitioners during the week of May 23, 1949 The course has been designed to assist the family physician in meeting the challenge presented to him by the increasing prevalence of cardiovascular diseases among his patients

Applications will be acceptable from physicians licensed by and living in the State of New York Since it is not feasible to give bedside instruction to large numbers, enrollment will be limited, and applications will be acted upon in the order of receipt No special application form is necessary Physicians interested in taking the course should so advise the Admissions Committee, New York Medical College, Flower and Fifth Avenue Hospitals, 1 East 105th Street, New York 29, enclosing a check for $3 00 payable to the New York Medical College, Flower and Fifth Avenue Hospitals This fee will be returned to applicants who cannot be accepted.

The New York State Department of Health will provide fellowships of $50 to cover the tuition fee for each accepted student In addition, the State Department of Health will allow a stipend of $10 per day to cover travel or living expenses to those students living 25 miles or more from the New York Medical College, Flower and Fifth Avenue Hospitals The only charge to the student is the registration fee.

Recent Legislation—Governor Dewey signed three bills on April 18 designed to aid children afflicted with cerebral palsy The first of the bills provides for the reporting of cases of cerebral palsy The second is devoted to the planning and financing of experimental programs in developing centers for the teaching of children afflicted with this condition and providing physical training for the rehabilitation of such children The third bill is aimed toward a rational administration of medical service and education for physically handicapped children "Hereafter the health and medical services will be administered by the Health Department and the educational services will be handled by the State Education Department Presently there is an illogical overlap," the Governor stated in a memorandum.

On April 24, coincident with the beginning of Mental Health Week in New York State, Mr Dewey signed a bill creating a commission to formulate a long-range master plan to meet the mental health needs of the State The new law creates in the Mental Hygiene Department a Mental Health Commission, headed by the State Commissioner of Health and including the Commissioners of Social Welfare, Health, Correction, and Education

Bampton Lectures in America—The second series of Bampton Lectures in America are being given by Dr Paul Ramsey Hawley, chief executive officer, Blue Cross Commission and Associated Medical Care Plans Dr Hawley's topic is "New Discoveries and Their Effect Upon the Public Health" The lectures are presented at the McMillin Academic Theater, 116th Street and Broadway, at 8 30 P M The dates of the last three lectures are May 16, 17, and 18

MEETINGS

Past

Saranac Lake Medical Society

Dr J Burns Amberson, chief of the Chest Service Bellevue Hospital, spoke on the "Potentialities and Treatment of Minimal Pulmonary Tuberculous Lesions" at a meeting of the Saranac Lake Medical Society on April 13

American Foundation for High Blood Pressure

The Medical Advisory Council of the recently formed American Foundation for High Blood Pressure held its annual meeting at the Hotel Cleveland, on April 15 and 16 Dr Irving H Page, Cleveland, is chairman of the Advisory Council which was formed in Cleveland in 1947

The following, among others, reported on their work Dr Raymond Gregory, University of Texas Medical Branch Galveston, Texas, Dr Eugene B Ferris, Jr, University of Cincinnati, College of Medicine, Cincinnati, Dr Robert Wilkins, Robert Dawson Evans Memorial Hospital Boston, Dr William Goldring New York University College of Medicine, New York City, and Dr Henry Schroeder, Washington University School of Medicine, St Louis.

Contin Society Honorary Scholastic Organization of New York Medical College

The twenty-fifth anniversary of the Contin Society Honorary Scholastic Organization of the New York Medical College was held on April 18 At this meeting, honorary membership was conferred upon Dr George T Pack who delivered the annual lecture, "Influence of Disease on History and the Course of Empires"

Other speakers of the evening were Dr J A. W Hetrick, president and dean New York Medical College, Dr I S Kleiner, professor of biochemistry and physiology, and Dr L P Wershub, associate, department of urology

In addition to the undergraduates who received the Honorary Scholastic Scroll for maintaining the scholastic standing in the upper *five per cent of the* junior year, many graduates were present representing a membership over a period of twenty-five years.

New York City Public Health Association

Dr Harry S Mustard, New York City Health Commissioner presided at a meeting of the New York City Public Health Association on April 19 Dr Leonard A Scheele *Surgeon General of the* U.S Public Health Service, discussed 'Current Trends in Public Health Organization in the United States" Dr Iago Galdston, executive secretary of the medical information committee of the New York Academy of Medicine and president of the Association, also spoke.

New York Council of Mental Health Organization

A forum sponsored by the New York Council of Mental Health Organization was held on April 22 at Washington Irving High School. The main topic was psychologic problems of the emotionally disturbed retarded, or maladjusted Dr Joseph S A Miller, medical director of Hillside Hospital, discussed the effects on the family, and Mr Edward Moses, psychologist with the Bureau of Child Hygiene, spoke on such problems in the public school

New York Council of Surgeons

Dr Charles Kastenbaum, visiting physician, St Joseph's Hospital for Diseases of the Chest, spoke on 'The Therapeutic Indication for Streptomycin in Pulmonary Tuberculosis" at a meeting of the New York Council of Surgeons on April 26

Association for the Advancement of Psychotherapy

A regular monthly meeting of the Association for the Advancement of Psychotherapy was held at the New York Academy of Medicine on April 29 The guest speaker was Dr Frederic Wertham, who spoke on "Psychopathology of Violence"

New York Allergy Society

A series of case presentations was the program of a meeting of the New York Allergy Society on May 4 The case presentations and discussers were as follows

Drs Louis J Schloss and Robert Chobot, University Hospital, New York University-Bellevue Medical Center, "Report of Death in Four and One *Half Year Asthmatic Child*"

Dr William B Sherman, Presbyterian Hospital, "A Case of Coexistent Insulin Allergy and Insulin *Resistance*"

Dr Francis C Lowell Boston "Clinical and Experimental Studies of Insulin Allergy and Resistance."

Dr Maury D Sanger, Brooklyn Regional Office Veterans Administration, "An Unusual Case of Severe Eczema Solare."

Dr David Merksamer Jewish Hospital, Brooklyn, "Atmospheric Mold Survey of the New York Metropolitan Area for 1948"

Dr Frederic P McIntyre, Flower and Fifth Avenue Hospitals, "An Unusual Case of Periarteritis Nodosa with Recovery"

Future

Cancer Teaching Day

A Cancer Teaching Day will be held at the Binghamton City Hospital, Binghamton, on May 25, under the auspices of the Broome County and New York State Medical Societies, the Sixth District Branch of the State Medical Society, the Binghamton City Department of Health, and the New York State Department of Health, Bureau of Cancer Control

The *afternoon session* will begin at 2 30 P M and will include a color film with sound on "Cancer The Problem of Early Diagnosis," and lectures by Henry D Diamond, M D, and Harold A Solomon, D D S Dr Diamond, assistant attending physician, Memorial Hospital, New York City, will give a talk on *The Significance of Enlarged Lymph* Nodes," and Dr Solomon, principal cancer dental

surgeon, Roswell Park Memorial Institute, will speak on "Clinical and Radiographic Diagnosis of Oral Tumors"

Dr Charles L Pope, president, Sixth District Branch, will address the evening meeting which will start at 7 30 P M Also on the program are Dr William A Cooper, associate professor of clinical surgery, Cornell University Medical College, who will speak on "Gastric Cancer—Newer Diagnostic Methods," and Dr Clyde L Randall, professor of gynecology, University of Buffalo School of Medicine, who will give a talk on "The Significance and Management of Abnormal Vaginal Bleeding"

At 6 30 P M dinner will be served at the Binghamton City Hospital Advance reservations are required, and all those who wish to attend are asked to send dinner reservations accompanied by a check for $1 50 to Dr Victor W Bergstrom, Laboratory Department, Binghamton City Hospital, Binghamton

National Conference of County Medical Society Officers

The fifth national conference of County Medical Society Officers (Grass Roots Conference) will be held in Atlantic City, Sunday, June 5 This is the day prior to the opening of the A M A House of Delegates, and arrangements have been made so that this conference will in no way conflict with the Conference of Presidents The sessions of the Grass Roots Conference will be held in the morning and the evening, and the Conference of Presidents will meet during the afternoon

The morning session will be held at the Rose Room, Hotel Traymore, and will deal with specific county medical society problems with three panel discussions on the problem of emergency calls, indigent medical care plans, and the National Education Campaign The last hour of the morning session will be given over to questions on the latter topic The evening session will consist of addresses by Mr Clem Whitaker, director, A.M A.'s National Education Campaign, on "The A M A. National Education Campaign," and the Honorable John L McClellan, United States Senator from Arkansas, on the subject, "A Congressman Views the Health Problem" This portion of the conference will be held in the Trimble Room of the Hotel Claridge

Medical Alumni Society of the University of Pennsylvania

The Medical Alumni Society of the University of Pennsylvania will hold its annual meeting at its Alumni Dinner in the Hotel Claridge, Atlantic City, on Wednesday, June 8, 1949, at 6 30 P M, during the A.M A Convention

Tickets, $7 00 each, must be purchased in advance, as a definite number of reservations must be guaranteed to the hotel Your reservation accompanied by your check, made out to the Medical Alumni Society, should be sent to Miss Frances R. Houston, Executive Secretary, Medical Alumni Society, 36th and Pine Streets, Philadelphia 4, Pennsylvania

International Academy of Proctology

The first meeting of the newly formed International Academy of Proctology will be held at the Marlborough-Blenheim in Atlantic City, on Friday, June 10, 1949 The scientific portion of the program will consist of the presentation of papers and motion picture films of interest to all physicians as well as to those specializing in proctology

Further information and a copy of the program may be obtained by writing to Dr Alfred J Cantor, International Academy of Proctology, 43–55 Kissena Boulevard, Flushing, New York

PERSONALITIES

Honored

Dr Oswald Swinney Lowsley, director of the department of urology, James Buchanan Brady Hospital, New York, the Ecuadorean decoration, the National Medal of Merit, for his contribution to the development and progress of the teaching of medicine in Latin America Dr John J Masterson, president-elect, New York State Medical Society, at a dinner on April 28 given by the Kings County Medical Society Col Samuel A Cohen, former New York City physician, received Belgium's highest decoration, the Order of Leopold II, for services rendered as port surgeon on the 17th Major Port TC, located at one time in Ghent, Belgium

Appointed

Dr Renato J Azzari, president of the Bronx County Medical Society, as chairman of the Non-Sectarian Committee of the Bronx Physicians Division of the United Jewish Appeal Dr Robert F. Korns has qualified for appointment as principal public health physician in the State Health Department Dr Robert L Nelson, Owego appointed Tioga County coroner by Governor Dewey Dr Geoffrey W Rake, as director of Squibb Institute for Medical Research, following the resignation of Dr James A. Shannon who will shortly take up his duties as associate director in charge of research, National Heart Institute Dr William B Talbot, New York Post-Graduate Medical School and Hospital, as assistant president of the Institute of Living, Hartford, Connecticut Dr Donald D Van Slyke, member emeritus of the Rockefeller Institute for Medical Research, as assistant director of biology and medicine, Brookhaven National Laboratory, Upton, Long Island.

Speakers

Dr Crawford Campbell, Albany, at a meeting of the Young People's Fellowship of St Peter's Episcopal Church, April 10, on the subject, "Medical Experiences in World War II" Dr Umbert Cimildoro, Oswego, on compulsory health insurance at a meeting of the Congregational and Presbyterian Men's Clubs on March 16 Dr Dean A. Clark, medical director of the Health Insurance Plan of Greater New York, and Dr Irving Leinwand, New York, participated in discussion of "Congress and Medical Care" on Brooklyn College Radio Forum over Station WNYC on March 23 Dr William Eckes, in a symposium on prepaid voluntary health insurance on April 12 at a meeting of the Physicians Guild of Kings County Dr Fred Elias, at a meeting of the Woodridge Auxiliary of the Monticello Hospital March 15, on "Our Health Problem" Dr John A Esposito and Dr Leo J Hoge, at the Wilton Grange March 24 At a luncheon meeting of the Queens Village Lions Club, Dr

Arthur Fischl, president of Queens County Medical Society, on voluntary nonprofit health insurance Dr Thomas Hershey, Briarcliff, discussed urology at the April 16 meeting of the Ossining Rotary Club Dr John H Hollis, staff member of Chenango Memorial Hospital, on the subject of socialized medicine at a meeting of the Norwich Rotary on March 22 Dr J Lane, Rochester, on the question, "The Administration's Plan to Insure Medical Care" at a Town Hall meeting on March 10 Dr Frederick MacCurdy, commissioner, Department of Mental Hygiene in New York State, on "Crime and Mental Hygiene" at the Columbia University Forum for the Study and Prevention of Crime, on May 7 Also speaking was Dr David Abrahamsen, Columbia University, on "Family Tension, Basic Cause of Criminal Behavior" Dr H Houston Merritt, chief of neurology at Neurological Institute of Columbia-Presbyterian Medical Center, at a meeting of the Mohawk Valley Neuropsychiatric Society April 15 Dr Joseph S A Miller, director of Hillside Hospital, Queens, and Dr Arthur Horowitz, Queens, as participants in a forum on "The National Health Program—Menace or Panacea" sponsored by the Glen Oaks American Veterans Committee on March 9 Dr George T Pack, New York, delivered a series of lectures sponsored by the Cancer Society of Hawaii and the Hawaii Territorial Medical Association during the early part of May Dr Bret Ratner, professor of clinical pediatrics, New York Medical College, Flower and Fifth Avenue Hospitals at the annual meeting of the American College of Allergists in Chicago on April 17 Speaking on the same program was Dr Harold Abramson of New York At the College of Medicine of the University of Vermont, June 2, Dr C P Rhoads, Memorial Hospital and Sloan-Kettering Institute for Cancer Research, on the use of isotopes in cancer research and treatment Dr George M Shearer, member of the Jamestown Medical Society, at a meeting of the Jamestown Rotary Club on March 21 Dr Janet Travell, Cornell University Medical College, and Dr Ade T Milhorat, New York Hospital, at the international conference on the vitamins, April 16, sponsored by the New York Academy of Sciences Dr Morris Weintrob, Brooklyn, as the negative on the question, "Should We Adopt Compulsory National Health Insurance?" at a forum at Brooklyn College March 14

New Offices

Dr Peter D Corsones, general practice in Kingston Dr Luther B Gardner, in association with Dr Leon M Roe in Canisteo Dr J Harrison, practice in the diseases and surgery of the ear, nose, and throat, in association with Dr Arnold B Kauffman, Syracuse Dr Alexander Rosinak, general practice in Pulaski Dr Oscar Schlesinger, general practice in South Otselic Dr Jacob Wachtel, general practice in Dryden

COUNTY NEWS

Albany County

The Albany County Chapter of the American Academy of General Practice named Dr William G Richtmyer, Albany, as president at a meeting on April 15 Dr John F Mosher, Coeymans, was elected secretary-treasurer The Albany Chapter was recently granted its charter by the State Academy of General Practice

At a meeting of the Albany County Medical Society held on April 27, Dr Hobart Reiman, Magee Professor of the Principles and Practice of Medicine, Jefferson Medical College, addressed the members on the topic "Diagnosis and Treatment of Various Viral Respiratory Diseases"

Chemung County

A Spring Teaching Day was presented on April 20 under the auspices of the Chemung County Medical Society, the Medical Society of the State of New York, and the New York State Department of Health The afternoon program included the following speakers and topics

Dr Lawrence E Young assistant professor of medicine, University of Rochester, School of Medicine and Dentistry, "The Differential Diagnosis of Jaundice."

Dr A. Wilbur Duryee chief of the Peripheral Vascular Clinic, New York Post-Graduate Hospital, "The Management of Occlusive Arterial Disease and Phlebitis"

Dr Milton G Bohrod pathologist and director of laboratories, Rochester General Hospital, "The Use of the Laboratory in Clinical Medicine A Study in Clinicopathologic Correlation."

The evening program consisted of the Fourth Annual Elliott T Bush Memorial Lecture by Dr Sidney M Schaer, instructor in surgery, University of Buffalo School of Medicine, who spoke on "Blood, Protein and Fluid Balance"

Delaware County

At the regular bimonthly meeting of the Delaware County Medical Society speakers were Dr Sydney Bressler, assistant thoracic surgeon at St Clare's Hospital, New York, and Dr Irving S Shiner, Metropolitan Hospital, New York Dr Bressler presented a paper on bronchogenic carcinoma which was discussed by Dr Shiner

Dutchess County

Dr Morris Fishbein, editor of the *J A M A*, was guest speaker at an open meeting of the Dutchess County Medical Society on April 13

Fulton County

"Recent Progress in the Management of Common Anorectal Lesions" was the subject of a lecture delivered by Dr Emil Granet, instructor in postgraduate medicine Columbia University, at the April 21 meeting of the Fulton County Medical Society This program was postgraduate instruction arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Jefferson County

At the regular monthly meeting of the Jefferson County Medical Society on April 19 Dr Malcolm Brown, associate professor of medicine at Queens University, Kingston, Ontario, was the guest

speaker Dr Brown's topic was "Management of Coronary Heart Disease"

A meeting of the Jefferson County Medical Society will be held on May 17 at the Black River Valley Club, Watertown, at 8 30 P M Dr Henry C Shaw, associate professor of medicine, University of Rochester School of Medicine and Dentistry, will speak on "Common Diseases of the Skin" and will illustrate the lecture with colored lantern slides This program is postgraduate instruction arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Kings County

A joint meeting of the Medical Society of the County of Kings with the Pediatric Section was held on April 19 The theme of the scientific program was "Asphyxia and Resuscitation of the Newborn" Dr Paluel J Flagg, consulting pneumonologist, Manhattan Eye and Ear Hospital, spoke on "The Anesthetist's Point of View", Dr Duncan E Reid, professor of obstetrics, Harvard Medical School, on "The Obstetrician's Point of View", and Dr Stewart H Clifford, associate professor of pediatrics, Harvard Medical School, spoke on "The Pediatrician's Point of View"

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The first concert by the Brooklyn Doctors Orchestra will be given on May 21 at 8 30 P.M at the Brooklyn Academy of Music

Monroe County

A postgraduate teaching day on heart disease on March 23 was sponsored by the Monroe County Heart Committee of the Tuberculosis and Health Association and the County Medical Society Speakers included Dr Claude S Beck of Cleveland, and Dr Morton F Reiser who spoke on "The Psychosomatic Aspects of Heart Disease", Dr William Dock, "Coronary Arteriosclerosis", Dr Linn J Boyd, "Pulmonary Emboli", and Dr Sidney Rothbard, "Rheumatic Fever and Streptococcal Infections."

Nassau County

At a meeting of the Nassau County Medical Society on April 26, Dr Edwin Sharkey, instructor in surgery, Albany Medical College, spoke on "The Use of Radioactive Isotopes in Tumor Localization" This was a lecture in postgraduate instruction arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

New York County

Members of the New York County Medical Society heard Dr Nelson W Barker, Mayo Clinic, and Dr Arthur Blakemore, associate surgeon, Presbyterian Hospital, speak on the medical and surgical aspects of arterial occlusive diseases at a stated meeting of the Society on April 25

Niagara County

On April 12 a meeting of the Niagara County Medical Society was held The speaker was Mr George A Lankes, special agent U S Department of Justice, Federal Bureau of Investigation, who spoke on "Activities of the F B I"

Queens County

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Recent meetings of the Queens County Medical Society include the stated meeting on April 26 when Dr Ralph Colp, attending surgeon, Mount Sinai Hospital, spoke on "Present Status of Vagotomy in the Treatment of Gastric, Duodenal, and Gastrojejunal Ulcer" A Friday afternoon talk was held on May 6 with Dr Emanuel D Friedman, professor emeritus of clinical neurology, New York University College of Medicine, as speaker Dr Friedman's topic was "Pneumoencephalography in Clinical Neurology" On April 29 a Cancer Teaching Day was held under the auspices of the Subcommittee on Cancer of the Queens County Medical Society and the Queens Division of the American Cancer Society The morning session consisted of tumor conferences at St. John's Long Island City, Queens General, Flushing, and Jamaica Hospitals The afternoon and evening sessions comprised a symposium on the early diagnosis and results of therapy in cancer

A monthly cancer afternoon will be held on May 18 at the Medical Society Building from 3 to 5 P M The program will include the following

Symposium on Early Diagnosis of Gastrointestinal Malignancy—Dr Bertram Krugman, "Colon and Rectum", Dr A X. Rossien, "Stomach and Esophagus", Dr S Zachary Vogel, "Anus," and Dr Louis A. Rosenblum, "Gastrointestinal Appendages"

Discussion of symposium by Dr Jacob Buckstein, roentgenologist, Bellevue Hospital

"Early Diagnosis of Carcinoma of the Mouth, Pharynx, Nasopharynx, and Larynx"—Dr Morris Bender

"Early Diagnosis of Gynecological Malignancy"—Dr Thomas May

Discussion by Dr Ira I Kaplan, clinical professor of radiology, New York University College of Medicine

Washington County

The quarterly meeting of the Washington County Medical Society was held on April 12 The scientific program was as follows Dr Joseph Feingold, Fort Edward, spoke on "Anticoagulants in Medicine" as the vice-presidential address, Dr Philip Harff, Cambridge, gave a talk on personal experiences with state medicine, and Dr Joseph L Kiley discussed present trends in socialized medicine with a report of the action of the Saratoga County Medical Society

Westchester County

Members of the Mount Vernon Medical Society

[Continued on page 1221]

HOSPITAL NEWS

New York's Blue Cross Plan Reports New High in Membership

ENROLLMENT of 420,143 persons in Associated Hospital Service, New York's Blue Cross Plan during 1948 brought the total membership to 626,321, Mr Louis H Pink, president, announced in the annual report for 1948

A total of $32,720,142 80 was paid to hospitals for the care of 356,904 members With the exception of maternity cases, 92 per cent of those who received care in semiprivate accommodations had their hospital bills paid in full The amount paid to hospitals from the time AHS was founded in 1935 to the end of 1948 totaled $140,675,907 72

The report showed that women and children made up approximately two thirds of the membership and three fourths of the cases hospitalized Men required less hospital care in proportion to the number enrolled, representing one third of the total membership but less than one fourth of the cases hospitalized.

Employed members originally outnumbered family dependents The trend began to reverse in 1945, however, and since that time the percentage of family members has steadily increased

The report indicated that increasing hospitalization among family dependents has resulted in greater expenditures for their care AHS provides full benefits for family dependents without additional membership charge regardless of the number of dependents enrolled in a family

Of the total number of members hospitalized, 176,545, or more than half, underwent surgery including tonsillectomies, tumors, and operations of the digestive and genitourinary system Medical cases, including respiratory, digestive, urinary, and circulatory diseases, numbered 101,540 A total of 78,819 were hospitalized for maternity and related conditions The average length of stay in the hospital was 8 7 days, slightly less than in 1947

Sixteen Municipal Hospitals Named as Participating Hospitals

IN ITS April report, the Hospital Council of Greater New York announced developments in the Master Plan for Hospitals and Related Facilities, which marked its second anniversary on April 22. Commenting on the Master Plan, Dr John B Pastore, executive director of the Council, stated, "The people of New York City have every reason to be proud of their community leaders and hospital authorities, who have voluntarily assumed the responsibility of working together to provide coordinated and efficient hospital and health facilities It is gratifying to the Council that no major hospital project has been undertaken during these last two years which was not in accord with the Master Plan

"Seventeen hospitals have already been named as Participating Hospitals Now we announce the designation of sixteen municipal and four voluntary institutions as Participating Hospitals, making a total of 37 Participating Hospitals over the two-year period The designation of these municipal hospitals is significant, in that it marks the joining of the municipal hospitals with the other hospitals serving the community in a common effort—that of creating, through the medium of the Hospital Council, a coordinated plan of essential hospital service"

The April Council *Bulletin* announced the designation of the following municipal institutions as Participating Hospitals Bellevue, Harlem, Metropolitan, Sydenham, Fordham, Lincoln, Morrisania, Coney Island, Cumberland, Greenpoint, Kings County, Queens General, New York City, Goldwater Memorial, Triboro, and Seton Also announced as Participating Hospitals were four voluntary hospitals Lebanon, Bronx, Mary Immaculate, and Jewish Memorial

NEWS NOTES

At the clinical conference held April 18 at Mount Sinai Hospital, neurosurgical presentations were given by Dr P Bergman, "Paradoxical Brain Abscess in Congenital Heart Disease," and Dr Leonard Malis, "Spontaneous Cerebral Hemorrhage—Surgical Management" Other speakers were Dr Irving B Goldman, "Plastic Correction of Associated Triple Facial Deformities" Dr Louis E Schaefer, "Addison's Disease Simulating Pyloric Obstruction", Dr Frank Spielman, "Cushing's Syndrome Spontaneous Regression, Followed by Pregnancy," and Dr Harold Lear "Renal Calculosis, Associated with Parathyroid Tumor"

Immediate action in the State's mental hospital building program was indicated in the announcement by Dr Frederick MacCurdy, State Commissioner of Mental Hygiene, that contracts totaling $3,601,205 have been awarded for construction of four infirmary buildings providing for 480 patients at Letchworth Village, in Rockland County, one of six State schools for mental defectives

Dr Wardner D Ayer, clinical professor emeritus of medicine at Syracuse University College of Medicine, spoke on "Neurology in General Practice" at a staff meeting of the Rome Hospital, held April 19 at the hospital in Rome The program was postgraduate instruction arranged by the State Society's Council Committee on Public Health and Education with the cooperation of the State Department of Health

[Continued on page 1221]

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Westchester County

Members of the Mount Vernon Medical Society

[Continued on page 1221]

tember at Mrs. Crispell's home, and for the ual luncheon in October

e County

Mrs. Benjamin Smallen was chosen president-ct of the Erie County Auxiliary at the meeting l March 29 in Buffalo Other officers are s. George F Marquis, first vice-president, Mrs eph A. Zavisca, second vice-president, Mrs. bert W Lippett, recording secretary, Mrs Arthur Hassenfratz corresponding secretary and Mrs ner A. D Clarke, treasurer Mrs Clarence J nsbordine took office as president.

Guest speaker at the meeting was Dr John L. ady, who spoke on the "Federal Health Bill anning out that 'too much dependence on government is the road to slavery"

At the April 26 meeting, Mrs Pitt Petri gave a ion Table Arrangements"

onroe County

At the annual meeting of the Monroe County uxiliary, held April 8 in Rochester, officers for the oming year were elected, including Mrs Harry orton, president-elect, Mrs. Joe Lane, first vice-resident, Mrs. Fred Geib, second vice-president, rs. George Heckel, recording secretary, Mrs dward W Douglas, corresponding secretary, Mrs ne Green, treasurer, and Mrs. George Butler honan.

Guest speaker at the meeting was Mrs Lois nowlson, of White Plains who is assistant to the irector of the National Committee for Education n Alcoholism.

assau County

Mrs. Luther H. Kice, Garden City, president of e Woman's Auxiliary to the American Medical ssociation, was guest of honor at a reception April 2 given by the Nassau County Auxiliary in the uditorium of the Nassau Hospital. On the reception committee were Mrs. John Neubert, president of the Nassau County Auxiliary, Mrs. Arthur Martin, Mrs Franklin Fry, and Mrs Jeff Coletti

Oneida County

The members of the Oneida County Auxiliary held a luncheon meeting March 22 at the Hotel Utica, Utica with Mrs Arthur F Gaffney, Clinton, presiding Dr John F Kelley, Utica spoke on the legislative program of the State Medical Society A resolution was adopted opposing compulsory health insurance.

Auxiliary members entertained their husbands at a Mardi Gras dinner dance on April 23, for which Mrs. Dominick Guido Clinton was chairman. In addition to dancing and bridge the entertainment included a skit directed by Dr R. C Hall, a barbershop quartet a magician, and a fortune teller

Mrs. Gaffney and Mrs Bradford Golly, Rome will represent the Oneida Auxiliary at the national convention in Atlantic City in June.

Orange County

At the annual meeting of the Orange County Auxiliary held April 12 at the Newburgh Country Club Newburgh officers for the coming year were elected and reports were given by chairmen of the standing committees

Officers chosen are Mrs. Percival Fauvre, president, Mrs Charles McWilliams, president-elect, Mrs Arthur Moore, vice-president, Mrs. Richard Passenger secretary, Mrs. Ray Moody, corresponding secretary, and Mrs Anthony Morreale, treasurer A rising vote of thanks was given to Mrs John W Ross, retiring president

Program for the meeting included a discussion of the proposed National Health Insurance Bill, by Mrs. John W McKeever Following the discussion, a resolution was adopted opposing the bill, and copies were sent to State Senators and Representatives

Medical News

[Continued from page 1218]

heard a lecture on the topic, "Metabolic Diseases of the Bone," presented by Dr Isidore Snapper clinical professor of medicine, College of Physicians and Surgeons Columbia University, at a meeting of the Society on March 10

A Cancer Teaching Day, arranged and sponsored by the Westchester Cancer Committee, was held on April 19 At the afternoon session, Dr Alexander J Conte spoke on "A Study of the Factors Responsible for the Delay in Diagnosis and Treatment in Patients with Cancer", Dr Norman Higinbotham spoke on 'Bone Tumors—Their Diagnosis and Treatment," and Dr Joseph Burchenal spoke on 'Chemotherapy Studies in Cancer" The evening session which was also the scientific session of the stated meeting of the Westchester County Medical Society consisted of an address on "Recent Advances in Cancer Research" by Dr Cornelius P Rhoads, director of Memorial Hospital and Sloan-Kettering Institute for Cancer Research.

Hospital News

[Continued from page 1219]

The laboratory of the Deaconess Hospital, Buffalo, announces the establishment of a cytologic diagnostic service under the direction of Dr Siegfried Tannhauser, pathologist at the hospital Available to all physicians, this service will do cytologic studies, especially for malignant cells on vaginal and cervical smears, sputum, bronchoscopic aspirations, gastric lavage, pleural fluid, ascites, urine, and prostatic secretions

Dr Charles Buckman, since 1941 assistant director of Creedmor State Hospital on Long Island, has been named to take over the directorship of the Gowanda State Homeopathic Hospital in Helmuth, Erie County, on May 16, according to an announcement from Dr Frederick MacCurdy, Commissioner of Mental Hygiene

WOMAN'S AUXILIARY

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Spring Issue of Distaff Distributed

FEATURING the A M A educational campaign, the annual convention, and news of county auxiliaries and individuals, the Spring issue of *The Distaff*, publication of the State Auxiliary, was distributed in April

Edited by Mrs Lee R. Sanborn, with Mrs Thomas M D'Angelo as circulation manager, *The Distaff* in the Spring issue gives details about the A.M A. nation-wide program to *spread information* about voluntary health insurance systems, and the part auxiliaries can play in the campaign to educate the public to the problems of health and medical care The article is written by Mrs Alfred I den, of the editorial staff

Other information concerns the program State convention in Buffalo, the midwinter tive Board meeting in New York City, activ the county auxiliaries, an article on "Healt School Child" and "Diary Excerpts" b Adolph H Emerson, "Impressions on T *with Our President*" by Mrs Neil M Pa several interesting poems and news items issue is also highlighted by several cartoo pictures of Auxiliary officers and members

A M A Auxiliary to Meet June 6 to 10

THE *twenty-sixth annual meeting of the Woman's* Auxiliary to the American Medical Association will be held in Atlantic City, New Jersey, from June 6 through 10, with headquarters at the Hotel Haddon Hall Mrs Luther H Kice, Garden City, national Auxiliary president, will preside

The program opens on Sunday, June 5, with preconvention committee meetings and registration of delegates On Monday, June 6, Mrs Kice will preside at the board of directors meeting, and there will be round-table discussions for state officers and chairmen on *Hygeia*, legislation, program, and public relations Mrs. Harry F Pohlmann is chairman of the program committee A tea in honor of Mrs Kice and the president-elect, Mrs David B Allman, will be held Monday afternoon

The formal opening of the session will be Tuesday morning, with an address of welcome by Robert B Walker, president of the New State Auxiliary, reports of officers, and the dent's address by Mrs Kice At the aft session, reports of standing and special comm will be given, and round-table discussions held

On Wednesday, June 8, reports of state pres will be made, the annual election of officers and a luncheon in honor of Mrs Kice and Allman will precede a joint meeting of the of directors of the Auxiliary and the advisory cil of the A M A

Thursday, June 9, there will be meetings board of directors, a conference of state presi national officers, and committee chairmen, an annual dinner for members, husbands, and gue

COUNTY NEWS

Albany County

At the regular meeting of the Albany County Auxiliary, held April 27 at the Nurses' Home, Albany Hospital a discussion on the subject, "What Every Doctor's Wife Should Know," was held Dr John C McClintock was the guest speaker

The annual silver tea, for the benefit of the Red Cross, was held on March 23

Cayuga County

Mrs Charles T Yarington was elected president of the Cayuga County Auxiliary at the annual meeting held April 12 at the Auburn City Hospital Other officers chosen are Mrs Stephen J Karpenski, first vice-president, Mrs Walter E Block, second vice-president, Mrs M Howard Rapp, treasurer, Mrs O E Gomoll, recording secretary, Mrs William L Dorr, corresponding secretary, and Mrs George C Sincerbeaux, historian

Annual reports were given by the committee chairmen, and the Auxiliary voted to give a donation to the Girl Scout Camp Fund, with the suggestion that it be used to establish the camp infirmary A gift was presented to Mrs E S Platt, retiring dent, in appreciation for her work the past two y

Dutchess County

Officers of the Dutchess County Auxiliary elected at the annual meeting of the group April 29 at the Nelson House, Poughkeepsie dent is Mrs Clifford A Crispell, and serving her will be Mrs Louis R Ferraro, president-e Mrs Joseph L Cummings, first vice-presi Mrs John F Rogers, second vice-president, Aaron Sobel, treasurer, and Mrs John Brice P secretary

Reports of retiring officers and committee ch men were given, and Mrs Frank A. Gagan ga report on the Physicians' Home, to which the gr voted a donation

Guest speaker at the meeting was Dr Clifford Crispell, president of the Dutchess County Med Society Dr Louis R. Ferraro a member of Medical Society advisory council, was also a gu

Plans were announced for a membership tea

edition. Octavo of 383 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $12 50

Human Biochemistry By Israel S Kleiner, Ph D Second edition Octavo of 649 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $7 00

Physician's Handbook. By John Warkentin, M.D , and Jack D Lange, M D Fifth edition Sextodecimo of 293 pages, illustrated. Palo Alto, Calif , University Medical Publishers, 1948 Paper, $2.00

The Practice of Endocrinology Edited by Raymond Greene, D M (Oxon.) Octavo of 366 pages, illustrated London England, Eyre & Spottiswoode, 1948 Cloth, $52/6 ('The Practitioner' Textbooks)

Germicides, Antiseptics and Disinfectants for Hospital Use. By Dewey H. Palmer Octavo of 15 pages. New York, Hospital Bureau of Standards and Supplies, 1948 Paper, $1 00

Diabetic Manual for the Doctor and Patient By Elliott P Joslin, M D Eighth edition Duodecimo of 260 pages, illustrated Philadelphia, Lea & Febiger, 1948 Cloth, $2 50

The Shame of the States By Albert Deutsch Octavo of 188 pages illustrated New York, Harcourt, Brace & Co , 1948 Cloth, $3 00

Synopsis of Psychosomatic Diagnosis and Treatment. By Flanders Dunbar, M D , with the assistance of Jacob Arlow, M D , Raymond Hussey M.D Bertram Lewin, M D , *et al* , and Members of the Staff of the Departments of Medicine and Psychiatry, Columbia-Presbyterian Medical Center, New York City Duodecimo of 501 pages, illustrated. St Louis, C V Mosby Co , 1948 Cloth, $6.50

Conditioned Reflexes and Neuron Organization. By Prof Jerzy Konorski Translated from the Polish manuscript under the author's supervision by Stephen Garry Octavo of 267 pages, illustrated Cambridge, at the University Press (New York, Macmillan Co), 1948 Cloth, $4 00 (Cambridge Biological Studies)

Factors Regulating Blood Pressure Transactions of the Second Conference, January 8–9, 1948, New York, N Y Edited by B W Zweifach and Ephraim Shorr, M D Octavo of 170 pages, illustrated. New York Josiah Macy, Jr , Foundation (1948) Paper, $2 75

Blood Clotting and Allied Problems. Transactions of the First Conference, February 16–17, 1948, New York, N Y Edited by Joseph E Flynn Octavo of 179 pages, illustrated New York, Josiah Macy, Jr , Foundation (1948) Paper, $3 25

Outline of Histology By Margaret M Hoskins, Ph D , and Gerrit Bevelander, Ph D Second edition Quarto of 91 pages illustrated St. Louis, C V Mosby Co , 1948 Paper, $3 50

Control of Pain in Childbirth. Anesthesia, Analgesia, Amnesia. By Clifford B Lull, M D , and Robert A. Hingson, M D Third edition Octavo of 522 pages, illustrated Philadelphia, J B Lippincott Co 1948 Cloth, $12

Dementia Praecox The Past Decade's Work and Present Status A Review and Evaluation By Leopold Bellak, M D Octavo of 456 pages illustrated New York, Grune & Stratton, 1948 Cloth, $10

REVIEWED

Medicine as a Profession. Talks with Medical Students By George Henry Murphy, M D Duodecimo of 74 pages Toronto, Ryerson Press, 1946 Cloth, $1 50

The author's background, both in medicine and the humanities, fully qualifies him to give "six talks" to medical students These talks represent the contents of this small volume of seventy-four pages. The advice is sound and frequently inspiring, but a talk of twelve pages at one sitting must, toward its termination test the student s endurance. And quoting from the book—"Advice gets wearisome, etc " All in all, however, the student given the opportunity to *read* these "six talks" at his leisure, will certainly profit therefrom.

S R. Blatteis

Medicine By A. E Clark-Kennedy, M D Vol I **The Patient and His Disease** Octavo of 383 pages Baltimore Williams & Wilkins Co , 1947 Cloth, $6 00

In the preface of this original approach to medicine, the author stresses the unfortunate increase in size of most modern textbooks as well as their lack of unity He says, too, that "the capacity of the human mind does not increase and keep pace" with knowledge, so that memory is strained to the breaking point and principles are crowded out or buried

This volume is a good attempt to stress principles from which other information can be deduced, thus putting less strain on the memory In addition, side by side with scientific data on disease, one finds correlative remarks on the patient as a person with his varied emotional problems

This book is warmly recommended as an admirable, helpful attempt to give a broader view of sick patients rather than diseased states per se.

Andrew Babey

Biology of Disease By Eli Moschcowitz, M D Quarto of 221 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $4 50

Dr Moschcowitz has compiled several of his papers that have previously appeared in current medical magazines

The author s views on the biology of disease states and their evolution from early states to the morbid phase are scholarly

The biology charts that illustrate each subject constitute an excellent summary

Harry Mandelbaum

What You Can Do for High Blood Pressure By Peter J Steincrohn, M D Duodecimo of 191 pages Garden City, New York, Doubleday & Co , 1947 Cloth, $2 50

This small volume, written primarily for the layman, can with great profit include many members of the profession The author does his level best to drive home the fact that high blood pressure is not a disease but a symptom, and, as such, it is the doctor who is the one competent to interpret the significance

BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

RECEIVED

District Nursing A Handbook for District Nurses and for All Concerned in the Administration of a District Nursing Service By Eleanor Jeanette Merry, S R N , and Iris Dundas Irven, S R N Duodecimo of 266 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $4 00

Klinik und Therapie der Leptomeningitiden für Ärzte und Studierende By Hermann Czickeli, M D Octavo of 95 pages Vienna, Verlag Wilhelm Maudrich (New York, Grune & Stratton), 1948

Urine and Urinalysis By Louis Gershenfelds, D Sc Third edition Duodecimo of 347 pages, illustrated New York, Romaine Pierson, 1948 Cloth, $5 00

Adoption in New York City Report of an Inquiry into Adoptions and Related Services By the New York City Committee on Adoptions Octavo of 99 pages New York, Welfare Council of New York City, 1948

Baby Book. Prepared by New York State Department of Health, Bureau of Maternal and Child Health Octavo of 48 pages, illustrated New York, Department of Health, 1948

Manual of Urology By R M LeComte, M D Fourth edition Octavo of 311 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $4 00

Elementary Anesthesia By W N Kemp M D C M Octavo of 289 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $5 00

The Drugs You Use By Austin Smith, M D Duodecimo of 243 pages New York, Revere Publishing Co , 1948 Cloth, $3 00

Psychiatry in General Practice By Melvin W Thorner, M D Octavo of 659 pages Philadelphia, W B Saunders Co , 1948 Cloth, $8 00

A.M A. Interns' Manual Duodecimo of 201 pages Philadelphia, W B Saunders Co , 1948 Cloth, $2 25

Drug Research and Development Edited by Austin Smith, M D , and Arthur D Herrick Octavo of 596 pages New York, Revere Publishing Co , 1948 Cloth, $10

Abdominal Operations By Rodney Maingot, F R C S (Eng) Second edition Octavo of 1,274 pages, illustrated New York, Appleton-Century-Crofts, 1948 Cloth, $16

The Hygiene of the Breasts By Clifford F Dowkontt, M D Duodecimo of 222 pages, illustrated New York, Emerson Books, 1948 Cloth, $2 50

The Digestive Tract in Roentgenology By Jacob Buckstein, M D Quarto of 889 pages, illustrated Philadelphia, J B Lippincott Co , 1948 Cloth, $16

Occupational Therapy Source Book Edited by Sidney Licht, M D Octavo of 90 pages Baltimore, Williams & Wilkins Co , 1948 Cloth, $1 00

Liver Injury Transactions of the Seventh Conference January 15 and 16, 1948, New York, N Y Edited by F W Hoffbauer, M D Octavo of 95 pages, illustrated New York, Josiah Macy, Jr , Foundation, 1948 Paper, $1 50

Technique of Treatment for the Cerebral Palsy Child. By Paula F Egel Octavo of 203 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $3 50

Hungerkrankheit, Hungerödem, Hungertuberkulose Historische, Klinische, Pathophysiologische und Pathologisch-anatomische Studien und Beobachtungen an Ehemaligen Insassen aus Konzentrationslagern By A Hottinger, O Gsell, E Uehlinger, *et al* Octavo of 297 pages, illustrated. Basel, Switzerland, Benno Schwabe & Co (New York, Grune & Stratton), 1948 Cloth, $8 50

Technik der Kinder Arztlichen Differentialdiagnostik für Studierende und Praktische Arzte By Prof Dr Alphons Solé. Octavo of 394 pages Basel, Switzerland, Benno Schwabe & Co (New York, Grune & Stratton), 1948 Cloth, 20 fr

Physicians' Federal Income Tax Guide for the Preparation of 1948 Returns and 1949 Estimates. By Hugh J Campbell, and James B Liberman 1948–49 Edition Quarto of 93 pages, illustrated Great Neck, N Y , Doniger & Raughley (1948) Paper, $2 50

Pathology Edited by W A D Anderson, M D Octavo of 1,453 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth $15 00

The Clinical Management of Varicose Veins By David Woolfolk Barrow, M D Octavo of 155 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $5 00

The Skin Diseases A Manual for Practitioners and Students. By James Marshall, M D Octavo of 363 pages, illustrated Cambridge, at the University Press (New York, Macmillan Co), 1948 Cloth, $7 50

An Introduction to Gastro-Enterology By Walter C Alvarez, M D Fourth edition, Rev Quarto of 903 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $12 50

Language and Language Disturbances Aphasic Symptom Complexes and Their Significance for Medicine and Theory of Language By Kurt Goldstein, M D Octavo of 374 pages New York, Grune & Stratton, 1948 Cloth, $8 75

A Doctor Talks to Teen-agers A Psychiatrist's Advice to Youth By William S Sadler, M D Octavo of 379 pages St Louis, C V Mosby Co , 1948 Cloth, $4 00

Nursing for the Future A Report Prepared for the National Nursing Council By Esther Lucile Brown, Ph D *Octavo of 198 pages New York,* Russell Sage Foundation, 1948 Cloth, $2 00

Malignant Disease and its Treatment by Radium By Sir Stanford Cade, F R C S Volume I Second





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of the figures At the risk of being repetitious, the author keeps emphasizing this again and again

It is to be hoped that many of the laity will read this book, and that many doctors will heed the advice contained therein

S R Blatteis

Clinical Studies in Psychopathology A Contribution to the Aetiology of Neurotic Illness By Henry V Dicks Second edition Octavo of 238 pages Baltimore, Williams & Wilkins Co , 1947 Cloth, $4 50

This short volume on the etiology of neurotic illness presents an important British point of view and, as such, must be taken seriously There are numerous illustrative case histories with what to the reviewer seem sound and sensible interpretations The book is worth study

Andrew Babey

The Rh Factor In the Clinic and the Laboratory Special Issue No 2 of Blood, The Journal of Hematology Joseph M Hill, M D , and William Dameshek, M D , Editors Large octavo of 192 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $4 25

This is a series of articles on the Rh factor within the covers of one book that treat the subject authoritatively and completely This contribution should be a "must" for all those who work in this sphere of hemolytic mechanisms, be it pathologist, hematologist, pediatrician, obstetrician, internist, or general practitioner

Maurice Morrison

Glomerular Nephritis Diagnosis and Treatment. By Thomas Addis, M D Octavo of 338 pages, illustrated New York, Macmillan Company, 1948 Cloth, $8 00

This is a well-written book that deserves a place on the bookshelf of every doctor

Dr Addis writes as he lectures Authentic facts cover the physiology and pathology of the kidneys The clinical picture and the diagnostic aids are clearly given The chapter on treatment is inimitable

Harry Mandelbaum

Modern Clinical Psychiatry By Arthur P Noyes, M D Third edition Octavo of 525 pages Philadelphia, W B Saunders Co , 1948 Cloth, $6 00

This is the third edition of an excellent book on psychiatry It incorporates the numerous contributions made to this field during the eight years that have elapsed since the publication of the previous edition It is a fine book, written by an experienced psychiatrist, that is particularly recommended as a textbook for medical students and as an excellent reference work for the general practitioner

Irving J Sands

Coronary Heart Disease By A. Carleton Ernstene, M D Octavo of 95 pages Springfield, Ill , Charles C Thomas, 1948 Cloth, $2 50

In this small volume, Dr Ernstene of the Cleveland Clinic has produced a sound, but brief sketch of coronary heart disease for the general practitioner

The advice given is simple, sensible, and accurate Rarer complications and refinements of diagnostic technic are sensibly omitted from a monograph of this limited scope A few diagrams would have enhanced the value of this work for the practitioner unfamiliar with modern concepts of coronary disease In short, Dr Ernstene has succeeded admirably within self-imposed limitations

Milton Plotz

Modern Plastic Surgical Prosthetics By Adolph M Brown, M D Octavo of 293 pages, illustrated New York, Grune & Stratton, 1947 Cloth, $6 75

This book is recommended to surgeons where the cosmetic result of any operative procedure or series of procedures will be only fair or even be poor By modern prosthetic technics modified vinyl resins properly colored and possessing the translucence and elasticity of the normal tissue can be easily made to match when reconstructive operations often fail The patient will be better satisfied because of the naturalness of the prosthesis and because it can be done without hospitalization or loss of time from work. This book takes up in detail the various technics as well as all the different materials and their uses in the laboratory

Thomas B Wood

Understandable Psychiatry By Leland E Hinsie, M D Octavo of 359 pages New York, Macmillan Co , 1948 Cloth, $4 00

The author is professor of psychiatry at the College of Physicians and Surgeons, Columbia University, and assistant director of the New York State Psychiatric Institute He is an experienced and seasoned teacher, who slowly but surely raises the students to his own level rather than "talking down" to them Although Freudian in its approach, the work is so readable and so interestingly presented that even the novice will profit by reading it It is a "must" book that should be found on the desk of every practitioner of medicine

Irving J Sands

Nutrition in Health and Disease By Lenna F Cooper, M A , Edith M Barber, M S , and Helen S Mitchell, Ph D Tenth edition Octavo of 729 pages, illustrated Philadelphia, J B Lippincott Co , 1947 Cloth, $4.00

This book has been thoroughly revised and contains a detailed description of therapeutic diets

The chapter on meal planning for the family and the pattern of meals of different nationalities and their habits is of importance The food habits of a patient previous to the onset of illness can be used to advantage in prescribing therapeutic requirements However, since all former nationals are living and being treated in the United States, the therapeutic diet followed by the physician and dietitian should be a prevailing American diet to make for greater uniformity in the nutritional treatment of disease in the United States

There are several chapters on energy requirements, basal metabolism, and acid-base balance

M Ant

Endocrine Therapy in General Practice By Elmer L Sevringhaus, M D 6th ed Octavo of 264 pages, illustrated Chicago, Year Book Publishers 1948 Cloth, $4 00

All books must be considered with reference to their objects The purpose of this is told in its title

Extensive discussion of other phases of endocrine disorders is absent. The advice for treatment is clear and concise and does not wander into exact management of very obscure cases, which, in modern times, can find a more expert manager than the "general practitioner"

We recommend the book to those for whom it is intended

Walter D Ludlum, Sr.

A History of the Heart and the Circulation By Fredrick Willius, M D , and Thomas J Dry, M S

[Continued on page 1226]



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[Continued from page 1224]

in Med Octavo of 456 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $8 00

Willius and Dry have written a definitive history of cardiology which will serve as a source book to students and cardiologists The arrangement of the contents is novel and enhances its value There are three sections the first is a conventional history, chronologically arranged, of the development of cardiology, the second consists of brief biographies of the principal figures (one misses Heberden!), and the third comprises a chronologic presentation of data according to subjects For example, anyone wishing to learn about the history of aneurysm or of the pulse would find the data conveniently pigeonholed

MILTON PLOTZ

The Metabolic Brain Diseases and Their Treatment. In Military and Civilian Practice By G Tayleur Stockings, M B (England) Octavo of 262 pages, illustrated Baltimore, William & Wilkins Co , 1947 Cloth, $4 50

This is a most unusual book, which will satisfy the author's expectation "that this work will provide material for discussion and profitable controversy among psychiatrists, in addition to arousing the interest of those medical men who are engaged in branches of medicine other than psychiatry " The author shares the great interest aroused by the various forms of shock, or what he prefers to designate as "neurometabolic," therapy, and is equally engrossed in the universal effort to find a pathophysiologic basis for the affective psychoses and to give an explanation for the physiologic and chemical mechanism of the insulin and "shock" therapies

It is a difficult book to read, and one must indulge in mental gymnastics to follow the author and to decipher his new terminology It will certainly arouse considerable controversy among psychiatrists, provided a sufficient number of them will make the effort to read it

IRVING J SANDS

Practical X-Ray Treatment. By Arthur W Erskine, M D Third edition Octavo of 155 pages, illustrated Bruce Publishing Co , St Paul, 1947 Cloth, $4 50

The third edition of this book—original in 1931—second edition in 1936—bespeaks its popular demand As the author intends, it is "practical" from the radiotherapist's standpoint The beginner will find the subject simply and well presented with references for those seeking more profound and detailed knowledge In short it whets the appetite of the would-be radiotherapist and is worthy of a niche in his library

MILTON G WASCH

Clinical Roentgenology of the Digestive Tract. By Maurice Feldman, M D Third edition Octavo of 901 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $8 00

What more can one ask from a book than that it be well-written, splendidly illustrated, and clinically authoritative This third edition by a most competent observer makes it a "must" for anyone interested in the diagnosis of conditions and diseases involving the digestive tract

B M BERNSTEIN

Atlas of Plastic Surgery By Morton I Berson, M D Quarto of 304 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $15

This *Atlas* is produced in orderly form with good illustrations, diagrams, and photographs It includes many of the procedures well known and accepted by plastic surgeons However, some questionable technics are presented which, unless evaluated by surgeons experienced in this field, are apt to lead one into difficulties

DAVID TEPLITSKY

Human Neuroanatomy By Oliver S Strong and Adolph Elwyn Second edition Quarto of 442 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

This, the second edition, can indeed take its place among the leaders in its field Clear, descriptive material and abundant, well-reproduced illustrations bear testimony to the painstaking efforts of the authors The book follows conventional lines including only that material which is well authenticated Students, practitioners, and neuropsychiatrists will profit from the reading of this book, especially if, at the same time, they undertake a personal dissection of the human brain

THEODORE MELTZER

Between Us and the Dark. By Lenore McCall. Octavo of 303 pages Philadelphia, J B Lippincott Co , 1947 Cloth, $3 00

This is the autobiography of a person giving an account of four and one-half years of her mental illness She was confined in two private mental hospitals She reveals her stark terror and bewilderment as she lost control of the normal pattern of life and found herself hopelessly depressed and separated from her family and friends She describes, in graphic detail, her experiences, associations, and various treatments, including insulin shock therapy, and her final recovery

The reviewer can recommend this gripping story to all who fear insanity or become involved in some emotional or mental difficulty

WILLIAM E MCCULLOUGH

The Driving Forces of Human Nature and Their Adjustment An Introduction to the Psychology and Psychopathology of Emotional Behavior and Volitional Control By Dom Thomas Verner Moore, M D Octavo of 461 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $6 50

The Driving Forces of Human Nature is a deep study of the fundamental forces which activate and control the thoughts, emotions, development, dreams, neuroses, desires, defense mechanisms, will, voluntary and involuntary actions, and the adjustment of people in their relations to their homes, to other people, and to the rest of the world

It deals with the adjustments which are needed between nations in order to secure a well-ordered social economy, not only in one's own country but also in relations with all others

In the last chapter man's relation to God is dealt with as a basic requirement for peace for the individual, for the country, and for the world at large

ARTHUR D JAQUES

Medical Symphony A Study of the Contributions of the Negro to Medical Progress in New York. By Gerald A Spencer, M D Octavo of 120 pages, illustrated New York, The Author, 1947 Cloth $3 50

This study of the contributions of the Negro to medical progress in New York is a factual and reliable treatise of the accomplishment of the Negro physician in all branches of medicine from the period of the reconstruction following the Civil War to the present The author has woven the personalities and contributions made by the Negro professionals in the City of New York into a medical symphony

[Continued on page 1228]

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[Continued from page 1226]

of integrated medical progress It covers medicine in all its branches, including public health, dentistry, pharmacy, and nursing It is a very refreshing and instructive book for all those interested in interracial problems and will greatly help to clear up many misunderstandings and prejudices

THOMAS B WOOD

The Clinical Examination of the Nervous System By G H Monrad-Krohn, M D Eighth edition Duodecimo of 380 pages, illustrated New York, Paul B Hoeber, 1947 Cloth, $4 50

This excellent manual has been a guide to students of neurology for years The principal change in the present edition is the addition of an exposition of angiography These new photographs are excellent and form a proper supplement to the illustrations of pneumoencephalography To those unfamiliar with this volume it can be stated that here can be found a clear and authoritative description of the neurologic examination with practical interpretations of the resulting material

ARTHUR J LAPOVSKY

The Medical Clinics of North America. New York Number May, 1948 Octavo Philadelphia, W B Saunders Co , 1948 Published Bi-Monthly (six numbers a year) Cloth, $16 00 net, paper, $12 net

It is difficult to pick out the best contributions in this excellent volume on neurology and psychiatry Outstanding are *Headache*, by Kunkle and Wolff, *Anxiety States*, by Rennie, and a magnificent paper by Dattner of Bellevue on *Neurosyphilis* Once again this book is highly recommended

ANDREW BABEY

The Battle of the Conscience A Psychiatric Study of the Inner Working of the Conscience By Edmund Bergler, M D Octavo of 296 pages Washington, D C, Washington Institute of Medicine, 1948 Cloth, $3 75

The Battle of the Conscience is an analysis of the problems facing individuals and peoples as to the right and wrong method of living and the facing of the problems of life with regard to that "still small voice," called conscience One may try to ignore the existence of a conscience, but it is always present If it is properly recognized and conscientiously lived up to, one cannot help but live a sane and happy life Dr Bergler's analysis gives one an excellent guide to follow

ARTHUR D JAQUES

Treatment of Heart Disease By William A Brams, M D Octavo of 195 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $3 50

This is a satisfactory treatise, modestly priced for general practitioners, on the treatment of heart disease It is not complete enough for specialists or even for those who have one of the larger standard texts devoted to the heart Even within its limited scope, a serious omission is the failure to include a detailed salt-free diet

MILTON PLOTZ

Nuremberg Diary By G M Gilbert, Ph D Octavo of 471 pages New York, Farrar, Straus & Co , 1947 Cloth, $5 00

Prison psychologist of the Nuremberg jail, G M Gilbert, had the opportunity to watch and record the personal disintegration of the Nazi overlords He reports Goering's grandiose poses, the hypocrisy of Von Ribbentrop, Schacht's air of innocence, and the story of Hess' amnesia. He exposes their attitude toward Hitler and the feuding among themselves Gilbert's understanding of the German language, free access, and intimate relationship qualified him to write the story of the Nuremberg trial

His report is truly narrative, boring, and repetitious in spots, but on the whole, extremely interesting

WILLIAM E MCCULLOUGH

Congenital Malformations of the Heart. By Helen B Taussig, M D Quarto of 618 pages, illustrated. New York, Commonwealth Fund, 1947 Cloth, $10

This is a most needed up-to-date book on *Congenital Malformations of the Heart* The author has spent many years studying the methods of diagnosis of these conditions Careful classification has rendered proper treatment of anomalies

THURMAN B GIVAN

Psychobiology and Psychiatry A Textbook of Normal and Abnormal Human Behavior By Wendell Muncie, M D Second edition Octavo of 620 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $9 00

In this volume the author has given us an exposition of the teachings of the psychobiological school as modified by his own experience A large portion of the book develops a plan for investigation and understanding of the signs, symptoms and problems of the psychiatric patient

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ARTHUR J LAPOVSKY

The Nursing of Tuberculosis. By O V Buxton S R N , and P M Macculloch Mackay, S R M N Illustrated by Nora Lewis, S R.N Duodecimo of 124 pages, illustrated Bristol, John Wright & Sons, Ltd (Baltimore, Williams & Wilkins Co), 1947 Cloth, $2 00

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MARIE M BEHLEN

Vitamine und Vitamintherapie By Emil Abderhalden, M D , and Georges Mouriquand, M D Octavo of 408 pages, illustrated Bern, Switzerland, Medizinischer Verlag Hans Huber, 1948 Board, 28 Fr

This book is an interesting publication, in which two authors write about the same subject in their different but very pertinent and characteristic ways Both cover approximately the same number of pages Abderhalden presents a perfect up-to-date description of our knowledge in experimental vitamin research, and Mouriquand adds the clinical experiences in vitamin deficiencies and therapy The latter stresses the etiology by dividing the deficiencies into Exokarenz, Enterokarenz, and Endokarenz He also describes the phenomenon of paravitaminosis and the manifestations of hypervitaminosis The book is very technical and somewhat difficult to read, but it is an excellent reference book and as such it is to be highly recommended

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2. Zondek, B. J.A.M.A. 118:705 Feb. 28 1942.

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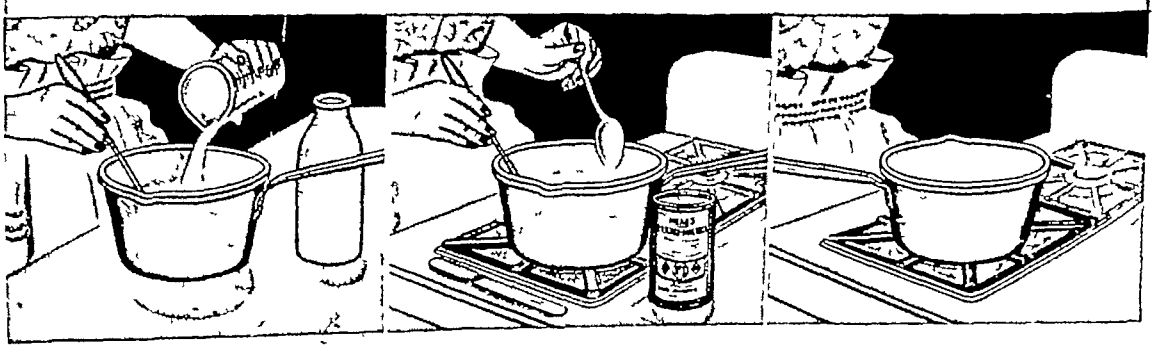
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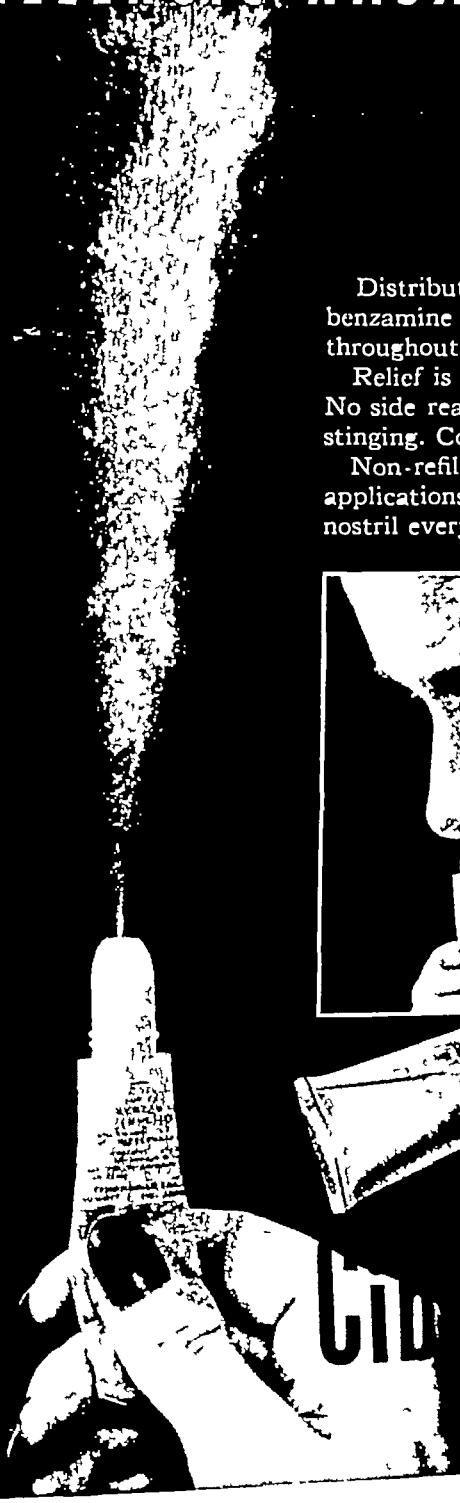
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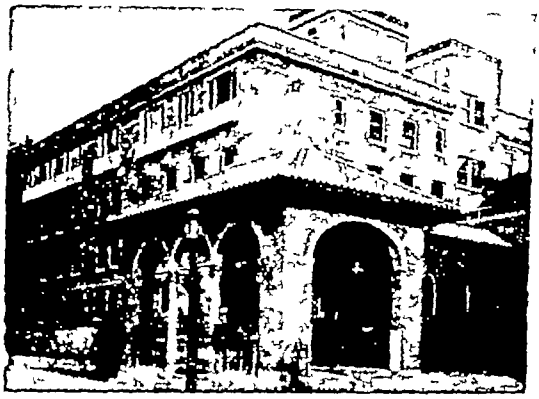
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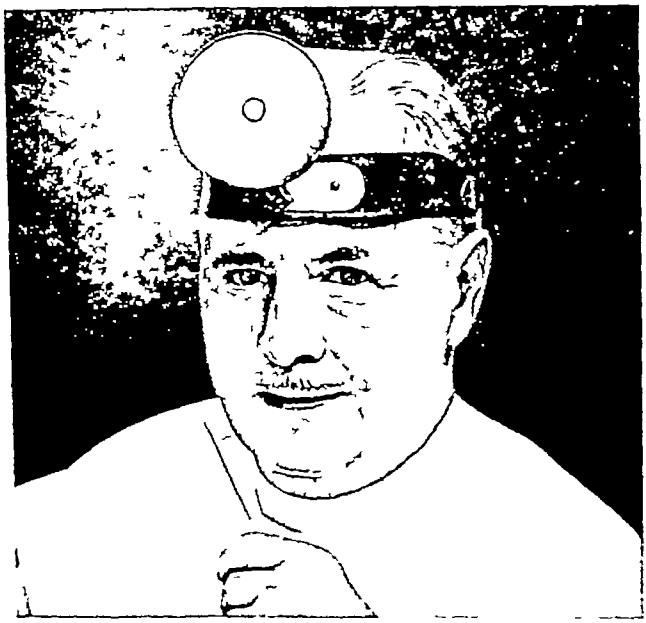
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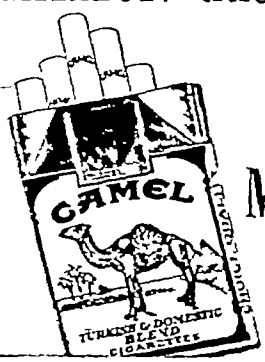


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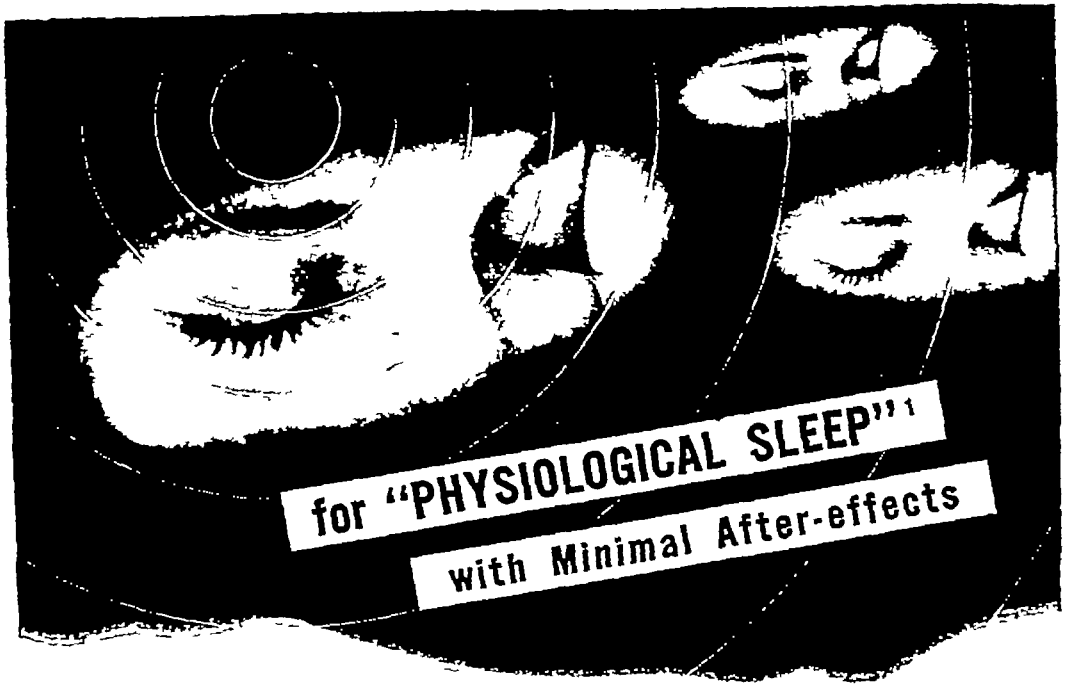
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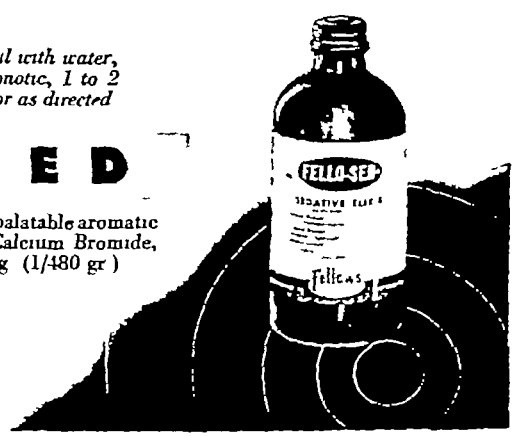
[1]N.N.R., 1947 p. 398.
[2]Goodman, L. & Gilman, A., The Pharmacological Basis of Therapeutics MacMillan, 1944, pp. 177-8.

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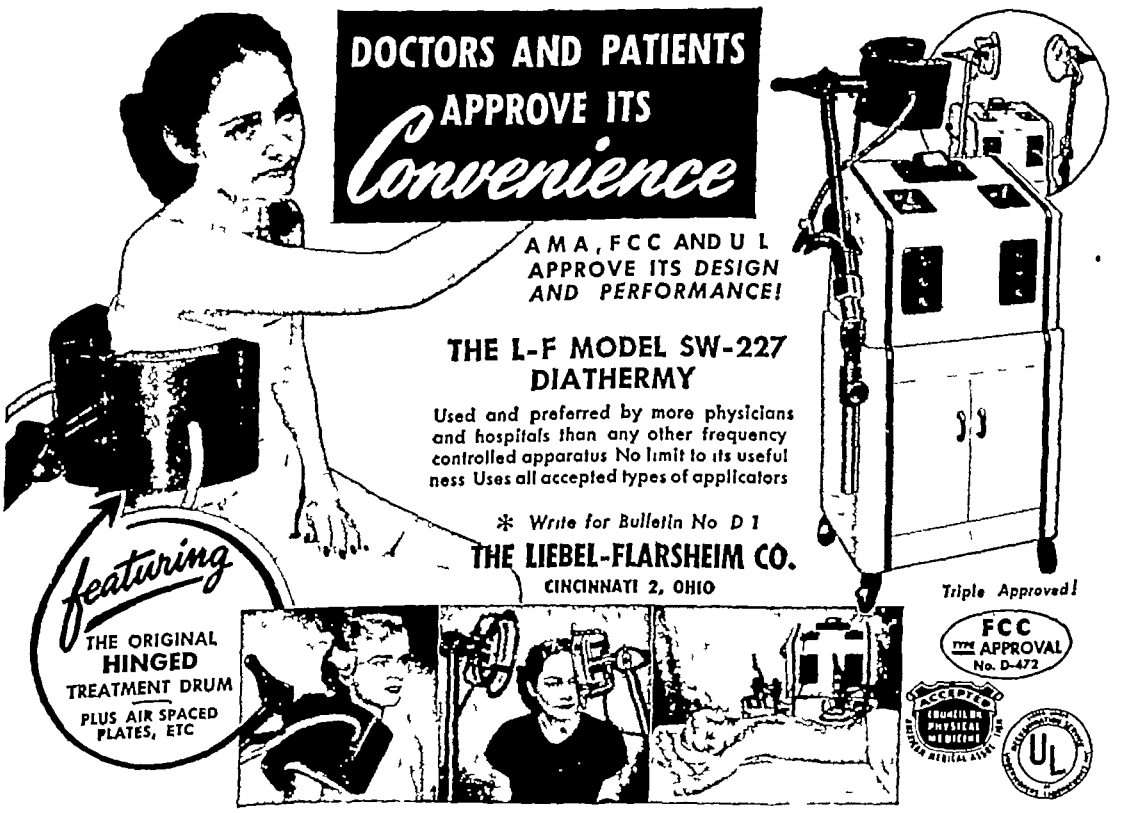
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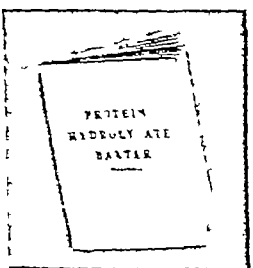
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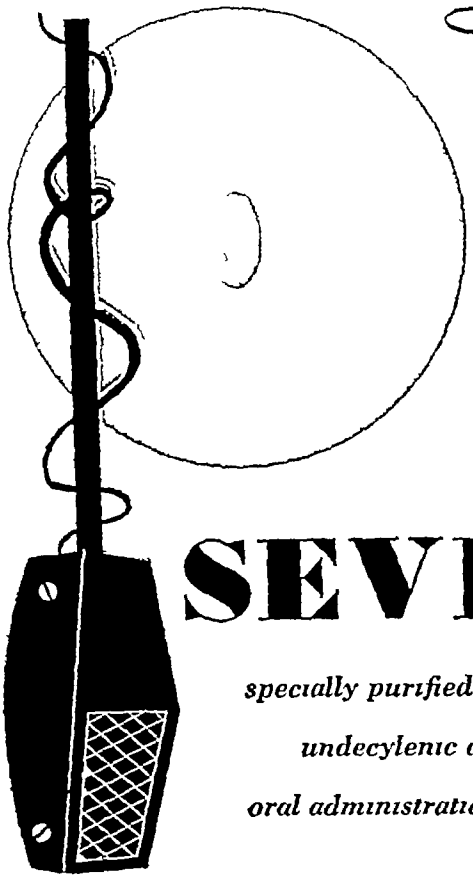
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1 Undecylenic Acid and Psoriasis, editorial, J.A.M.A. 139:460 1949
2. Perlman H H.: J.A.M.A. 139 444, 1949

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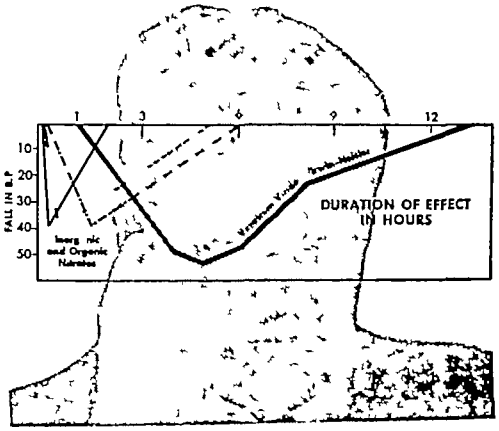
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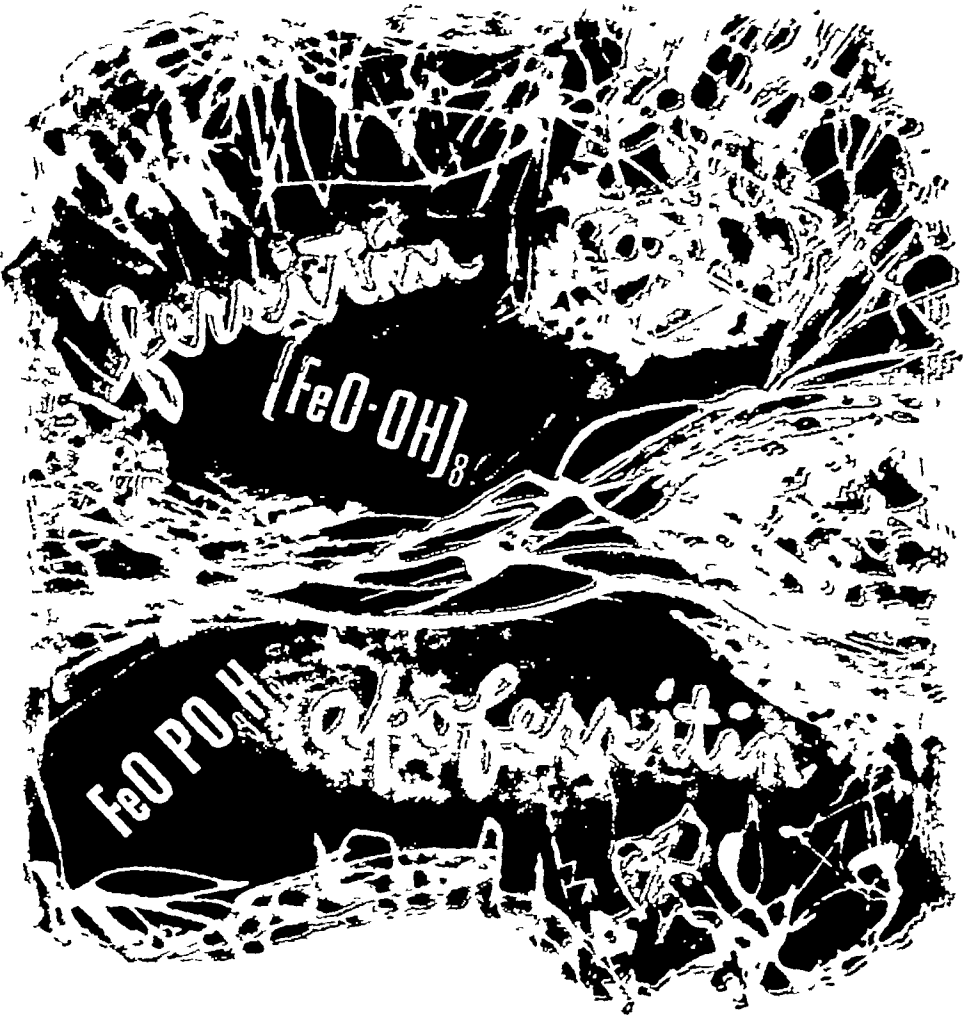
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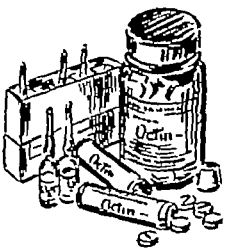
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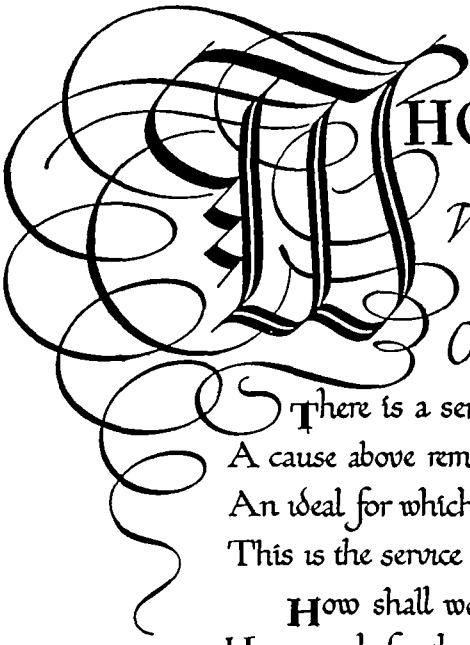
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It is the dumb, unspeakable joy in the eyes of a parent
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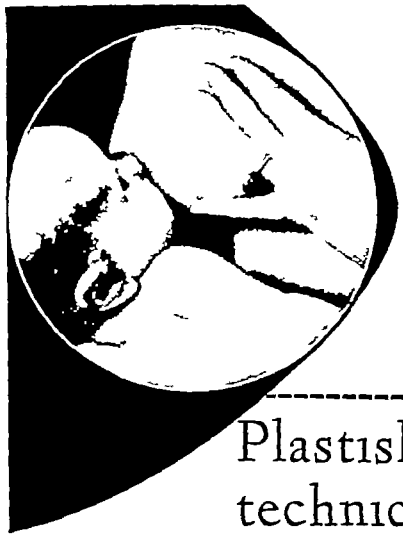
highly effective in an unusually wide range of common skin disorders





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50 patients 6 weeks to 6 months postpartum replied to a questionnaire as follows [1]

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1 000 patients in 5 hospitals answered the same questions as follows [2]

QUESTION #1 YES 91% NO 9%
QUESTION #2 YES 75% NO 25%
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1 McKenzie C H The Use of Plastic Nipple Shields for the Lactating Breast, Journal-Lancet, 68 199 (May) 1948.
2. Abramson, M Breast Feeding the Newborn, Gen Practice Clinics, (Oct.) 1947 p. 318.

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Results in 6 cases of chronic varicose ulcers

" diminution in the size of the ulcer occurred in every instance within two weeks and complete epithelization was obtained in four instances in each case selected very definite improvement occurred with chlorophyll ointment although previously the ulcers had been resistant to all types of treatment

CONCLUSIONS

"In the treatment of chronic suppurative osteomyelitis, both of hematogenous origin and secondary to compound fractures, the efficacy of chlorophyll solution locally combined with adequate sequestrectomy, produced uniformly rapid erradication of infection, early wound healing and substantial evidence of clinical cures, not previously experienced in this type of infection when treated by the usual time-honored methods of sequestration

"Chlorophyll derivative preparations in the treatment of decubitus ulcers, particularly in paraplegics, demonstrated tissue-stimulating properties, with subsequent early epithelization not previously seen in these particularly slow and indolent types of ulcer

"Chlorophyll ointment locally as an adjunct to treatment of varicose ulcers previously resistant to all forms of treatment, demonstrated remarkable therapeutic properties in every instance.

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"The period of follow-up has not been less than eighteen months for any case and on a number of cases two years of observation have been possible

"In the group of patients with chronic suppurative osteomyelitis, of whom fifty-four originally healed following sequestrectomy and delayed primary closure, two have developed recurrence of infection requiring additional surgery The remaining patients have been clinically asymptomatic with no evidence of recurrence of infection.

"The group of cases of osteomyelitis following compound fractures has been very interesting to observe Of this original group of twenty-four patients, additional surgery has been necessary in six Of the entire group of eighteen patients who have not required additional surgery there has been no evidence of recurrence of infection

"The group of indolent ulcers or decubiti, particularly on paraplegics, have remained healed without evidence of breakdown

"The 6 cases of varicose ulcers have unfortunately not been followed as closely Observation on three of the most resistant cases has been possible and to date the ulcers have remained healed without breakdown in two of these cases The remaining case had a 2 cm area of breakdown which responded rapidly to chlorophyll ointment pressure dressings, with subsequent healing

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This report is one of an extensive series of carefully supervised studies on the wound healing effectiveness of Chloresium

• *This synopsis is designed to give physicians a brief, convenient summary of the clinician's experience with Chloresium chlorophyll therapy It quotes his reasons for choosing this method of treatment his results in various types of cases and his evaluation of chlorophyll therapy, including his follow-up observations, eighteen or more months after treatment*

(1) *Original paper prepared by E B Carpenter, M D , Department of Orthopedic Surgery, Medical College of Virginia Hospital, Richmond, Va*

Why chlorophyll therapy was employed

" The action of chlorophyll as a therapeutic agent is essentially that of a stimulant to cellular metabolism

"Because of disappointments and failures to obtain early healing in chronic granulomatous processes by the usual classical procedures, and with an increasing number of enthusiastic reports relative to chlorophyll preparations, in recent literature, the writer was stimulated to investigate these (Chloresium) preparations clinically in a carefully selected and controlled series

How the cases were selected

"The cases chosen for this investigation were carefully selected from a busy orthopedic service in a prominent teaching hospital The cases selected were in each instance chosen by the writer and followed personally throughout their course of treatment and follow-up

"The period covered in this clinical study was nine months (See "Follow-up Observations" for final conclusions), 127 cases were selected and treated during this period

"The chlorophyll preparations* used were (1) water-soluble active chlorophyll derivatives in isotonic solution, (2) water-soluble chlorophyll derivatives in a hydrophylic ointment base, (3) chlorophyll-penicillin solution containing 2,000 units of penicillin per cc of water-soluble chlorophyll derivatives, (4) fine mesh gauze impregnated with water-soluble chlorophyll derivative ointment

Results in 59 cases of chronic suppurative osteomyelitis in which surgical intervention was held necessary

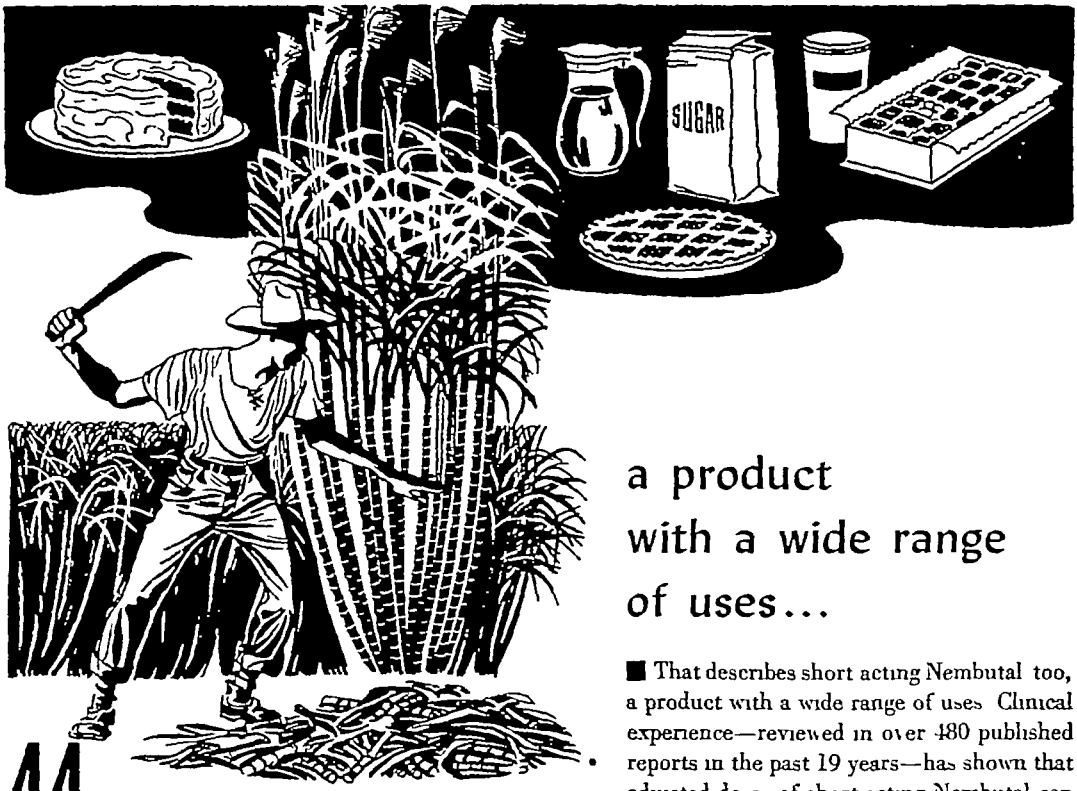
" Fifty-six healed per primum following the delayed closure and have remained healed without evidence of recurrence of infection or breakdown of the wound One patient developed several small subcutaneous abscesses following the delayed closure, necessitating incision and drainage of the abscesses Two wounds failed to heal following the delayed closure and continued to drain

Results in 25 cases of subacute or chronic suppurative osteomyelitis secondary to compound fractures

" skin defects were covered and the wounds healed in twenty-three instances The two other wounds broke down following skin grafting and required additional skin grafting or plastic closures

"Following the start of chlorophyll dressings, the rapid disappearance of the foul odors associated with these cases was very marked in every instance and was most gratifying to both the patient and to the others on the wards

*The water soluble chlorophyll derivative preparations used in this study were generously supplied by Rystan Company Inc. Mt. Vernon N Y , and are marketed commercially under the trade name Chloresium.



a product with a wide range of uses...

■ That describes short acting Nembutal too, a product with a wide range of uses Clinical experience—reviewed in over 480 published reports in the past 19 years—has shown that adjusted doses of short acting Nembutal can achieve any desired degree of cerebral depression, from mild sedation to deep hypnosis Furthermore, the dosage required is only about *one half* that of many other barbiturates Small dosage offers important advantages less drug to be inactivated, shorter duration of effect, reduced possibility of "hangover," wide safety margin and definite economy to the patient Look over the list of indications at left It may disclose new ways in which you can make effective use of short acting Nembutal Write for the new booklet "44 Clinical Uses for Nembutal" ABBOTT LABORATORIES North Chicago, Ill

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44 of Nembutal's Clinical Uses

sedative

Cardiovascular
Hypertension[1]
Coronary disease[1]
Angina[1]
Decompensation
Peripheral vascular disease

Endocrine Disturbances
Hyperthyroid
Menopause—female, male

Nausea and Vomiting
Functional or organic disease (acute gastrointestinal and emotional)
X-ray sickness
Pregnancy
Motion sickness

Gastrointestinal Disorders
Cardiospasm[2]
Pylorospasm[2]
Spasm of biliary tract[2]
Spasm of colon[2]
Peptic ulcer[2]
Colitis[2]
Biliary dyskinesia

Allergic Disorders
Irritability
To combat stimulation of ephedrine alone etc.[3]

Irritability Associated With Infections[4]

Restlessness and Irritability With Pain[3, 4]

Central Nervous System
Paralysis agitans
Chorea
Hysteria
Delirium tremens
Mania

Anticonvulsant
Traumatic
Tetanus
Strychnine
Eclampsia
Status epilepticus
Anesthesia

hypnotic

Induction of Sleep

obstetrical

Nausea and Vomiting
Eclampsia
Amnesia and Analgesia[5]

surgical

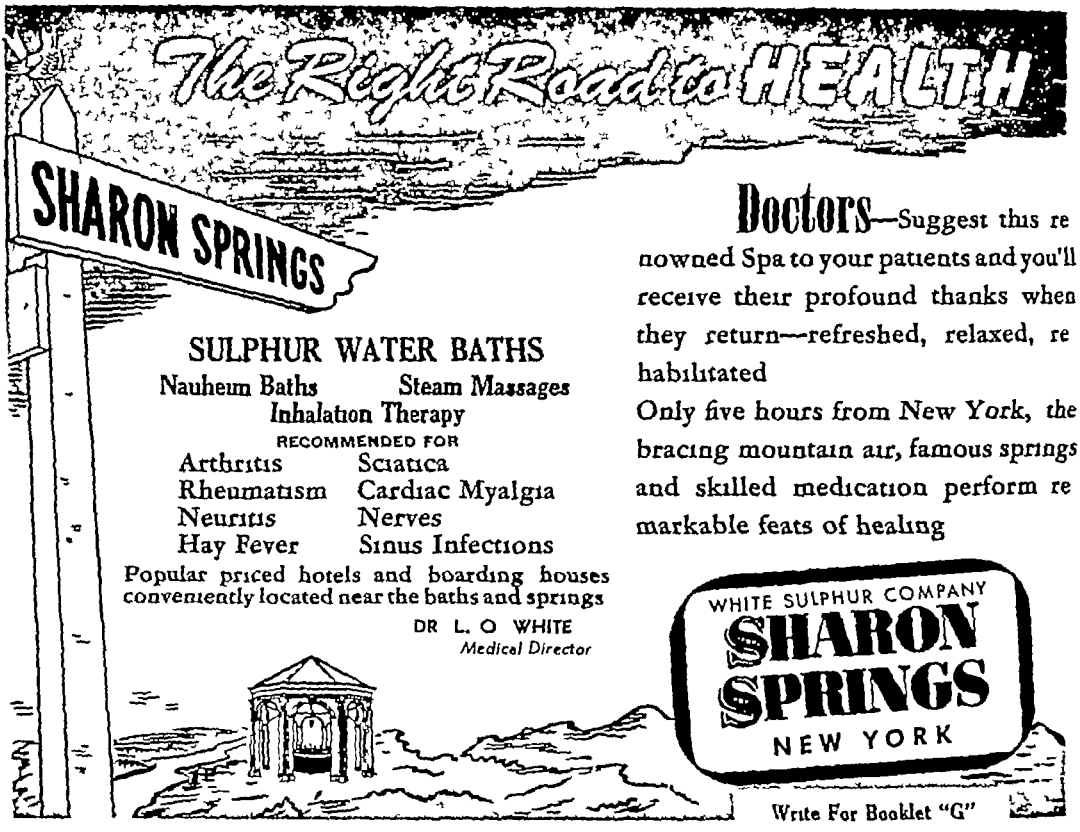
Preoperative Sedation
Basal Anesthesia
Postoperative Sedation

pediatric

Sedation for:
Special examinations
Blood transfusions
Administration of parenteral fluids
Reactions to immunization procedures
Minor surgery

Preoperative Sedation

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[2]*Nembutal and Belladonna*
[3]*Ephedrine and Nembutal*
[4]*Nembudeine®,*
[5]*Nembutal and Aspirin,*
with scopolamine or other drugs.



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Scultetus Breast Amputations, engraving 1649

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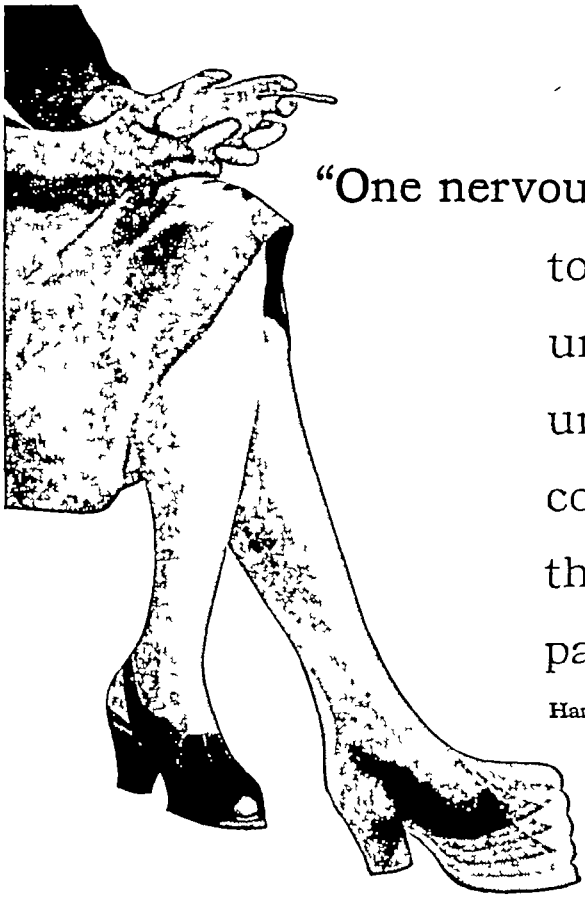
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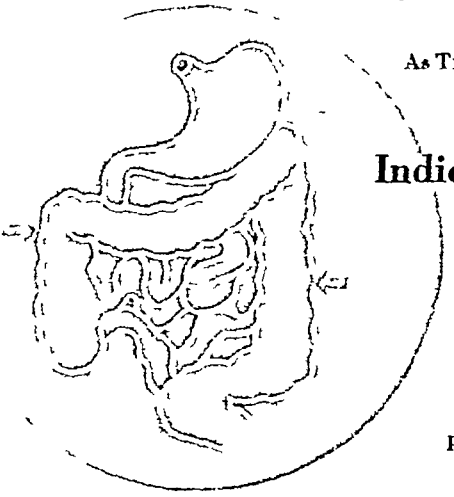
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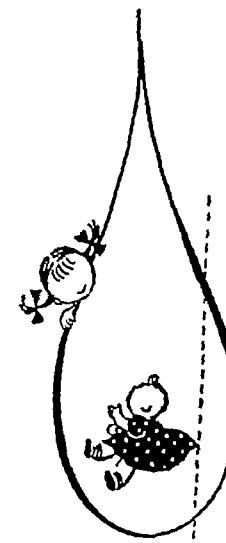
dosage 9 Gm. daily in divided dosage, after meals. Usually not more than 0.2 Gm. per kilogram of body weight is necessary in 24 hours. Children's dosage may be computed on this basis, up to 40 kg. For ulcerative colitis higher dosages may be used without danger of toxicity due to the nonabsorbable character of THALAMYD

packaging: THALAMYD tablets contain 0.5 Gm. (7.7 gr.) of phthalylsulfacetimide per tablet Bottles of 10 and 1000 tablets.

bibliography: 1. Seneca H., and Henderson E. In press. — Heinicke T., and Seneca H.: Rev. Gastroenterol. 15:611, 1948

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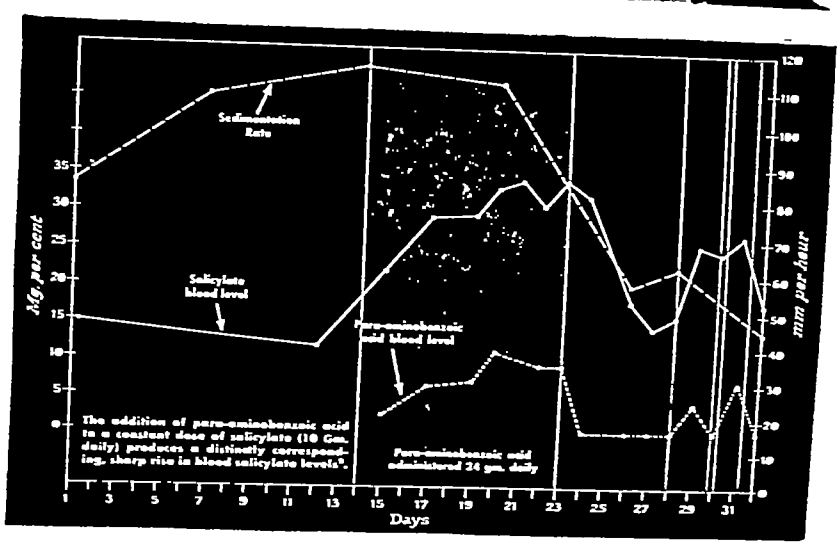
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references

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2. Brodie, B. B. et al. J. Pharmacol. and Exper. Therap., 80 114, 1944.
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7. Rosenblum, H. and Fraser, L. E. Proc. Soc. Exper. Biol. and Med. 65 178, 1947.

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in the Therapy of Arthritic Affections . . .

The "cure of [rheumatic fever]", agree most authoritative sources,[2,3,5,6] "depends not only on reaching, but also on maintaining a high plasma salicylate level "[5] The correlation between such blood levels and symptomatic improvement is graphically shown in the table at the right [6]

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indications Rheumatoid arthritis, acute rheumatic fever, fibrositis, gout, osteo-arthritis.
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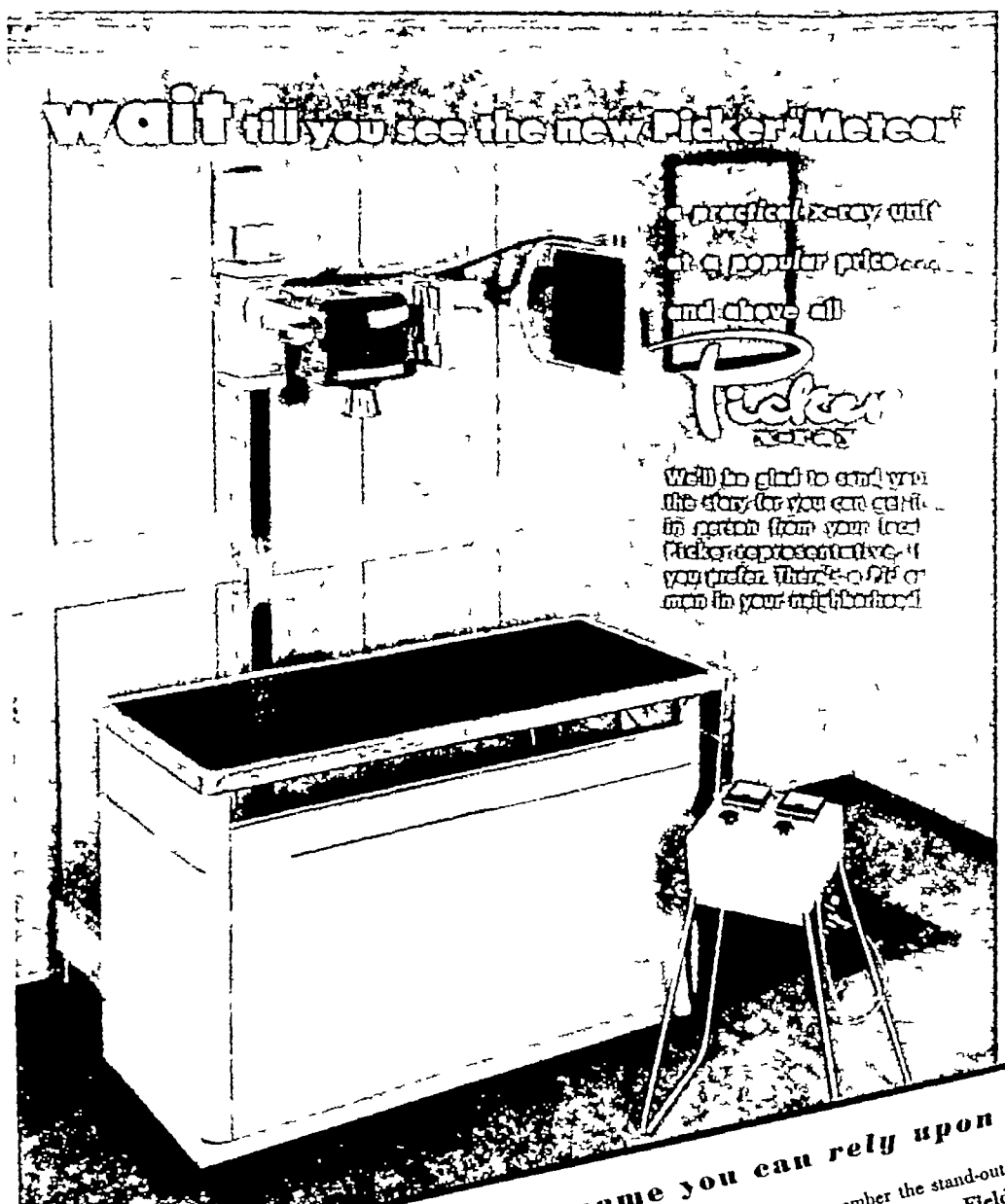
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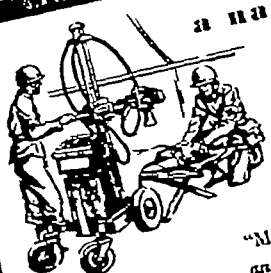
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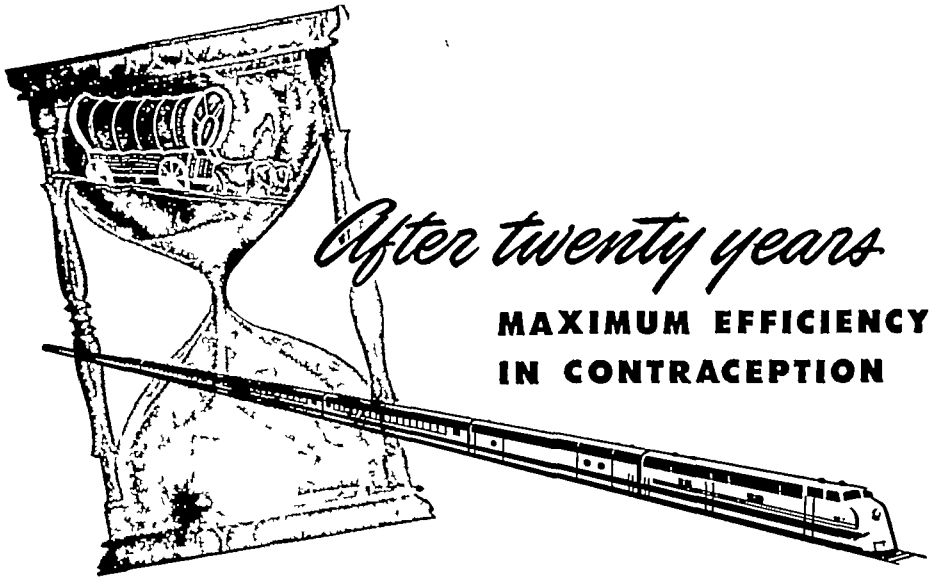
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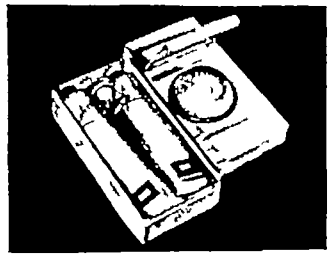
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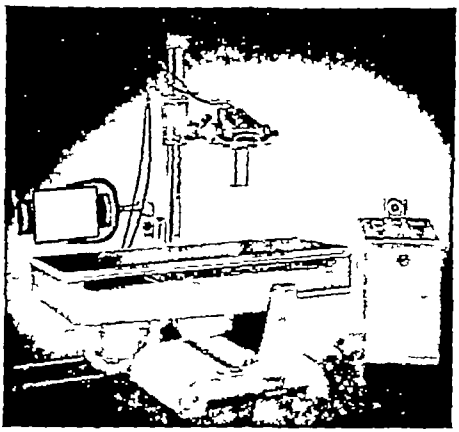
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(ammonia dermatitis)

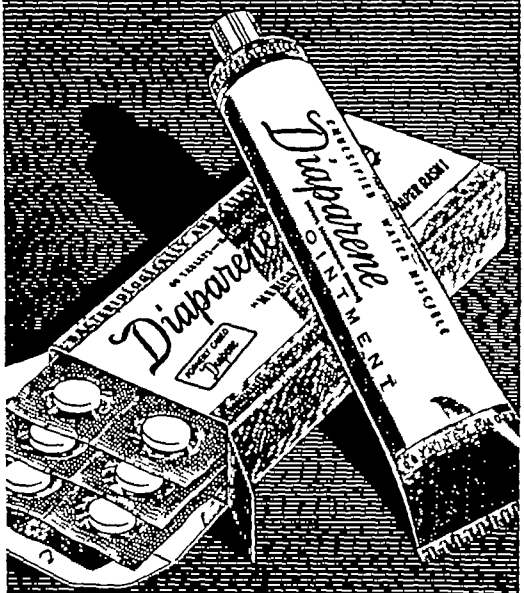
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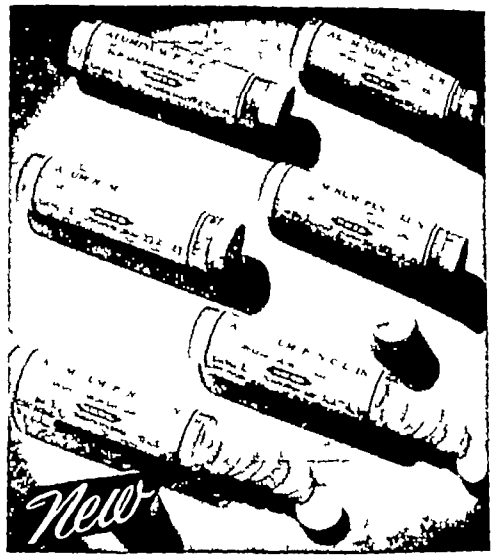
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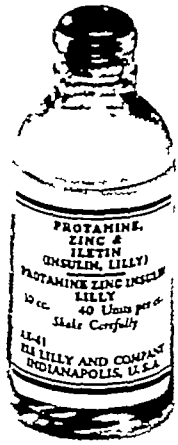
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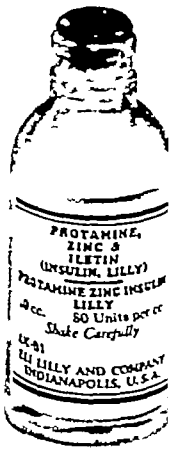
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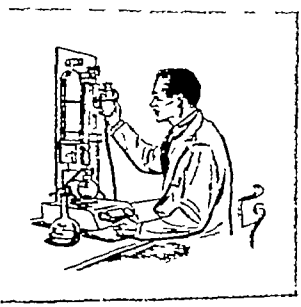
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Editorials

Disaster

Disasters may be of many kinds—personal, physical, moral, political, or economic Some kinds are preceded by warnings, for example, the rumblings which usually precede the eruption of a volcano, others strike suddenly and silently Are we physicians on the verge of some sort of disaster? Have we for long disregarded the warning signs and portents?

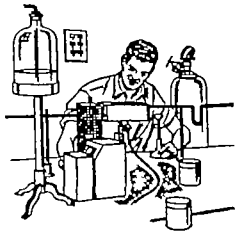
The entrance of government into the medical field has large implications of disaster These are mainly political and have probably been underestimated as to their importance More and more during recent decades the individual has become subordinate to the state, the citizen's coming and going has been and will be increasingly supervised by a supreme order To the state he must contribute his wherewithal but is permitted little or nothing to say about its disposition

Propaganda for government-controlled, tax-supported medical care promising everything "for free" is increasing in intensity Both Federal and state legislation to that dubious end is before Congress and various state legislatures Much of it promises what, with present or foreseeable facilities, cannot be performed with the best of intentions even under the lash of compulsion Yet the citizens are being asked to trade their birthright of individual initiative and their self-respecting structure of free enterprise for this sorry mess of tax-supported pottage which is anything but "free"

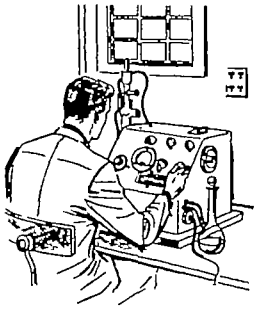
The American Medical Association and the several component state medical societies have recognized the necessity for better distribution of better medical service They have fostered the rapidly growing voluntary prepaid medical and surgical care plans These have had to be built on a foundation of sound actuarial practice to remain solvent and to provide policy holders with the medical service their contracts call for No other way is open to private enterprise than to pay its way, to keep its administrative costs as low as possible, and to sell insurance on its merits

As this is written, new and highly significant reports of new advances in the means for early diagnosis of cancer are appearing, universities are announcing new schools for study of the social sciences, more light is





BEHIND THE PEDIATRICIAN





Keeping little ones well is the job of the pediatrician Nutrition, infection, injuries, and abnormalities in behavior are his everyday problems This day-in, day-out preoccupation with the health of children gives the pediatrician a profound, practical knowledge of his field and a keen perception of the human equation

Pharmaceutical and biological products are playing an increasingly important role in the practice of pediatrics Several diseases of childhood are preventable with routine immunization procedures Palatable vitamin preparations assure infants and young children of prophylaxis and cure of vitamin deficiency syndromes Sulfonamides, penicillin, and streptomycin have sharply reduced the toll of many infectious diseases Lilly research scientists are concerned daily with the yet unsolved problems facing the pediatrician Sharper tools for the physician's competent hands are certain to result

Lilly

many years, maintained a comprehensive system of recording all discharge diagnoses The voluntary and proprietary hospitals have by unanimous action agreed to participate on a voluntary basis

There have been surveys of sickness often masquerading under the false label of health surveys There have been records made of illnesses among persons insured for hospital or medical care There are records of illness prevalence in the armed forces There is no knowledge of medically determined illness currently in a stable community such as the City of New York represents

Within the next few months a beginning will be made which will reveal the amount and kind of sickness that is admitted to hospital care, such weekly reports to make possible simple tabulation by age and sex according to the hospital of admission, the diagnosis on discharge being used

The usefulness of current morbidity reporting by hospitals depends on accuracy and comparability of the initial record, which would seem to be well assured under the conditions proposed in New York City Such data, even if of the highest quality, will prove as dull and lifeless as most of our mortality statistics unless the fluctuations of disease by time of year, by area or conditions of residence, by age, sex, employment, and economic conditions are studied and followed through with systematic efforts toward prevention or control

If we are to avoid a steadily increasing pressure for special reporting by the practicing physician of each new category of illness which emerges into public prominence, we must have a source of information about all illness which will serve some practical purpose Registers of cancer, heart disease, arteriosclerosis, diabetes, multiple sclerosis, epilepsy, cerebral palsy, etc , are being developed with no regard for the cost and time wastage of such complexity of reporting placed upon the family physician

From the time of Farr, Simon, Graunt, and others in the middle of the last century, much effort has been spent, and truly precious results have accrued from the collection, tabulation, analysis, interpretation, and publication of certified causes of death We have learned much from an honest study of these ashes of human existence Today, the possibilities of life-saving and health promotion follow each other in such swift succession that we can no longer follow the leisurely pattern of the 1890's and await the ponderous evidence of falling death rates over the decades to justify our efforts and crown our hopes with success

We must know the current facts of disease occurrence, its incidence, its prevalence, its expectancy, if our well-trained field force of sanitarians, epidemiologists, statisticians, public health nurses, and health educators are to function in a way worthy of their professional abilities Morbidity reporting is on the way It is necessary It will contribute to the saving of lives, and shorten the gap between information of preventable human illness and action for its avoidance

The Chances for a Long Life

Notwithstanding all the tirades to which people have been subjected from numerous sources about the alleged lack of adequate medical care in this country, these do not appear to be substantiated by what we are now learning about the constantly increasing span of life That men and women have succeeded in gaining partial control over their environment is perhaps true, and in the term environment we may include better food, better shelter, better knowledge of how to maintain good health, as well as better medical care The progress and achievements in the latter deserve definite consideration by the people of these United States

The average length of life, that is to say the expectation of life at birth, has jumped in this country from 49 24 years at the beginning of the century to 66 69 years, women making a somewhat better showing than men [1] All the factors which have brought about these changes reinforce each other, and greater reduction in morbidity and mortality, as well as more protection

[1] Statistical Bulletin Metropolitan Life Insurance Company November 1948.

being shed on the nutritional necessities of cancer cells—all under the banner of private enterprise and the drive of individual initiative

Education of the public is needed It must be universal, and to this end the American Medical Association has widely undertaken a campaign of public instruction Its efforts must be supported, which can be done in a substantial fashion by a contribution to the funds now being developed for this purpose This is not a "slush" fund as announced by one of our famous radio commentators recently It is devoted entirely to public education of what compulsory health insurance means

If you have not done so, send your contribution to your county society treasurer and do it at once in order to demonstrate your cooperation with this worthy cause

Morbidity Reporting—An Essential for Public Health of the Future

In April, 1929, in Berlin, the Committee of Expert Statisticians of the League of Nations took action to encourage the preparation of standard nomenclature of disease appropriate for the use of reporting medical diagnoses In Great Britain and the U S A this challenging request was effectively acted upon Widespread use of the *Standard Nomenclature of Disease, Injuries, and Operations* in the hospitals of our country followed its publication under the auspices of the New York Academy of Medicine and later, or at present, by the A M A The educational value of such a nomenclature has been extensive among the recent medical graduates, interns, and residents across the nation and in all our schools of medicine, so that the medical profession and hospital administrators are now well prepared to consider the application of this convenient tool of clinical practice for the purposes of preventive medicine as well as for the indispensable comparability of clinical experience and record

At the meeting of the Health Assembly of the United Nations in Geneva in July, 1948, an international list of diseases and conditions was adopted, as proposed by the Interim Commission of W H O In the meantime there was set up in England in the very midst of the war, in 1944, an experimental project of morbidity reporting in the area including Oxford, from the results of which the Register General Office of Great Britain has published monthly bulletins of disease incidence which have given useful data upon the ebb and flow of current disease, on the basis of voluntary reporting by a sample of the general population

On May 13, 1947, the following resolution was passed by the Board of Health of the City of New York

> WHEREAS, the Department of Health has no authority under the Sanitary Code of the City of New York to require the reporting of general illnesses and accidents, other than certain specified communicable and occupational diseases, now therefore be it
>
> RESOLVED, that inadequate knowledge of the presence of many diseases of a possibly preventable character, some of which only rarely result in the death of the patient and so escape official recognition, be brought to the attention of His Honor, Mayor William O'Dwyer, and that he be requested in the interest of the health of the people of the City to provide for the reporting to a central statistical bureau of the Department of Hospitals, of all discharge diagnoses of all patients admitted at any hospital or dispensary in the City of New York, whether tax-supported, voluntary, or proprietary, except those diseases required to be reported by these institutions to the Department of Health, and be it further
>
> RESOLVED, that the information obtained by this system of general morbidity reporting be kept confidential, and be made available currently to the Department of Health to permit its more effective application of the science of preventive medicine for the benefit of the public health

Further administrative consideration has resulted in the assignment of the requested undertaking to the Department of Health, where there are certain facilities of a statistical character particularly appropriate to the purpose

The Department of Hospitals has, for

expert radiologists The greatest dangers are in the field of therapeutics In treating malignancies, large doses are sometimes necessary, and this added risk is justified when experts are at the controls Even when the prognosis in a case of malignancy is hopeless, it is important to avoid, if possible, adding the misery of an x-ray burn, leukemia, or aplastic anemia

In the treatment of benign conditions, x-ray and radium should be reserved for those rare cases not responsive to any other form of therapy Every type of medical treatment should first be tried patiently, and for some time Even time itself may cure "strawberry marks" and M audoumi The editorial concludes, "Roentgen treatment for benign conditions should be used only with a vivid appreciation of its capacity for harm, and with an overt evaluation of its presumptive benefits, weighed against known and possible injuries inseparable from its use in effective dosage"

A Neurologist Looks at Discipline Every successful physician has practiced consciously or unconsciously, psychology and psychiatry Likewise, it is used by every mother in the nursery, by commanders on fields of battle, by salesmen, athletic directors, and, indeed, in all games, including poker

A recent article by a distinguished neurologist indicates that the very latest and most authentic information concerning the means of improving human behavior coincide exactly (almost verbatim) with the teachings of Christ, written nearly two thousand years ago, and with much of the moral teachings of Confucius, written five hundred years before that [1] The chief difference between the ancient and the modern (scientific, experimental) guides to correct human behavior is the simple, direct, incisive language of Christ and Confucius, and the involved, circuitous, and bewildering "gobbledegook" of some dissertations on psychology and psychiatry

A few quotations from this excellent paper will illustrate the return of modern teaching to the solid moral basis of the ancients "He stubbornly strives to gain the whole world but loses his own soul," "For the successful rearing of children, the prime essential is love" He advocates transmitting by precept and example those spiritual qualities of "honesty, love of truth, devotion to duty, loyalty, courage, diligence, unselfishness, respect for just authority, tolerance, and concern for the rights of others" "Utilize reward and punishment to build into the child those virtues which parents cherish" "To forgive a child for lying is to teach him to lie To punish cruelty and injustice one day and condone them the next is to teach cruelty and injustice" The rules of behavior should be enforced regularly

It is the hope of the author that we may pass on to our successors a moral civilization through decent teaching and discerning discipline This valuable article deserves careful reading by all physicians for its refreshing outlook, clear thinking, and understandable language, pointing a return to fundamental principles for improving human behavior by means that have stood the test of time

Costs of Medical Care We are pleased to present the following excerpt from the *Harvard Medical Alumni Bulletin*, January, 1949, issue

> Today when the costs of medical care are nearing comparatively astronomic levels, it is encouraging to be able to report on an unusual and refreshing philosophic approach to the problem Every trustee of a voluntary hospital has by now considered the ultimate effect of the rising costs of hospital housekeeping, plus the increasing expenses attributable to new therapies and drugs, in the light of increased taxation and declining capital gifts The legislation to nationalize hospitals in Britain, New Zealand, Australia, France, Sweden, and other countries provides a ready, though, to a very large extent, unpalatable solution.
>
> The trustees of the Massachusetts General Hospital have inquired into the possible methods of reducing hospitalization requirements Only one answer has been found To reduce by means of research the number and the morbidity of diseases. It is not generally appreciated, for instance, that were the incidence of typhoid and paratyphoid fevers at the level of only a few years ago the cost for the nation would be about $45,000,000 instead of less than $1,000,000 as in 1947 Other examples such as diphtheria and lobar pneumonia are readily discovered
>
> The trustees of the Massachusetts General Hospital are therefore actively engaged in a campaign not to add more beds, which would further drain the capital funds, but to erect a research building, from which, it is hoped, may come advances in science that may some day decrease the need for hospital beds.

[1] Mosher, Roland P. J.A.M.A. 135 399 (Oct. 18) 1947

against occupational hazards and accidents, will combine to improve longevity There will be a greater chance of survival from birth to later ages, and we may expect that this advance will continue

With population increase, there will be more people in time to come—chronologically old, if not otherwise—what is to be done to make these advanced years useful and happy? The medical and public health aspects are already receiving attention But the basis of good health in old age is laid during childhood and adolescence, debilitating disease, no matter when it occurs, must be attacked and, necessarily, we must acquire greater knowledge about the means and methods for accomplishing this

A new branch of medicine has been created, "gerontology," defined as the science of the physiologic and pathologic changes incident to old age Supplementing this is another term with which the physician must familiarize himself, "geriatrics," which is the specialty devoted to the treatment of the diseases of this period However, in view of the activities and frequently the good health of the older group, it may become difficult to define where old age really begins The social security regulations for their purposes proclaim that an individual should participate in its benefits (sic) at 65, the teaching profession concurs But that is not the measure, perhaps the arterial, rather than the chronologic age will evolve as the deciding factor In the meanwhile the situation may adjust itself, notwithstanding governmental or other injunctions. Those who have or are reaching an age which, formerly, placed them in a separate and dependent class, evidently need not despair—they seem to be holding their own, and the Biblical designation of "three score years and ten" as an "indicator" may require revision

Current Editorial Comment

Breast Feeding in Erythroblastosis The treatment of the infant with this unfortunate complication has been viewed with trepidation, and such babies have been weaned in the belief that maternal antibodies are destroyed by the infant's gastric juices or absorbed into the blood stream A study by I A B Cathie, at the Hospital for Sick Children in London, disclosed that this practice is not warranted [1] When the fasting gastric contents from 20 infants (one week to one year of age) were incubated with an equal volume of serum of a high Rh antibody titer for one hour at 37 C, no fall in titer occurred in any case Hence they are not easily destroyed by the child's gastric juice, nor did additional experiments disclose a demonstrable absorption into the circulation When an Rh positive volunteer drank 15 ounces of serum with an anti-Rh titer of 226, no untoward effects were noted—the serum did not sensitize other Rh positive cells When an erythroblastotic infant was fed high titer serum on one occasion, and breast milk with an anti-Rh titer of 32 on another, for 24 hours subsequent to a negative Coomb's test, no antibody was demonstrable and no red cells became sensitized This portion of the investigation was repeated, using incomplete or blocking antibody, on infants with hemolytic disease with the same result

The value of breast milk in every possible case should develop a spirit of hesitancy in promulgating the usual direction to take an erythroblastotic baby off the breast The results noted above should be subjected to further observations

X-Ray Hazards Those who employ roentgen rays for any purpose should know that, for good or ill, they guide a mighty force Theirs is the responsibility constantly to keep abreast of the latest discoveries, inventions, and means of control Only highly trained, full-time specialists can qualify, with the necessary experience, knowledge, and judgment, safely to administer these powerful agents (x-ray and radium), whether as an aid to diagnosis or as a means of treatment It is only natural then that the sad effects of those hazards are greater among surgeons and general practitioners using the smaller types of x-ray machines with less effective controls

In a recent editorial, those hazards were thoughtfully analyzed [1] The least danger is in the field of diagnosis, because of the brief exposures and the care exercised by

[1] Brit. M J (Oct. 25) 1947

[1] Editorial, J A M A 138. 214 (Sept. 18) 1948.

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S. Moore, M D , Editor

Emotional Conflict and Appetite

The *Oxford English Dictionary* defines appetite as a "physical craving or desire It is the determinate desire to satisfy the natural necessities or fulfill the natural functions of the body, one of its instinctive cravings which secure the preservation of the individual and the race "[1] It is well known that emotions influence appetite In recent years this influence has occupied the attention of many competent investigators [2-4] "The *emotions* are the feelings aroused by stressful situations, typically described as rage, fear, sorrow, love, and loneliness, but often mixed "[5] Anxiety is a kind of fear, and is one of the most common of the emotions Strong emotions are likely to cause functional changes in both mind and body, such as a diminution or loss of appetite Homesickness, for instance, may cause a complete loss of appetite The feeling of homesickness and abandonment may so affect the autonomic nervous system that not only will there be loss of appetite but there will be a feeling of nausea as well, perhaps even vomiting Once homesickness is cured, appetite returns

It is an interesting fact that anxiety will, under certain circumstances, cause an increase in food intake, and under other circumstances it may have exactly the opposite effect Anxiety usually results from emotional conflict, such as a state where there are conflicting desires, or fear of being unloved If anxiety is increased to a point where it becomes a recognizable symptom, mental unrest or suffering is experienced. Without special education, the individual may not realize that he or she is anxious, instead they see only the resultant symptoms Such persons may find themselves raiding the icebox, constantly nibbling, and frequently overeating, in addition to experiencing other symptoms This increased caloric intake often causes obesity Practitioners who treat obese patients usually find they have difficulty in getting these patients to remain on a reduced calorie diet The reason for this is that eating relieves the anxiety, and when anxiety is relieved the individual feels comfortable Some persons go on eating sprees just as others go on alcoholic binges There are other ways of relieving anxiety, but eating is one of the most common and most universal [3 6]

In other individuals, anxiety may cause a loss of appetite Anorexia nervosa is a classical example of this phenomenon in its extreme form.[7] Patients suffering with this type of emotional conflict find not only that they cannot eat, but that the very sight or thought of food is disgusting to them This may become a very serious medical problem, often resulting in death [5] In this disease, the symbolic nature of food is clearly recognizable Patients suffering from this type of response crave affection and understanding Their rejection of food is ofttimes symbolic of a feeling of rejection, and it is frequently necessary for the physician to spoon-feed such individuals when these patients are at last able to consider taking nourishment The understanding physician must give mental relief before the anorexic patient can again tolerate the idea of food

The psychologic relationship of food and love was discovered by early workers in the field of psychology In addition, it is now universally recognized that what goes into the mouth or what happens to the mouth and the oral cavity is of great significance to the individual An infant's hunger and the frustration resulting from such hunger is relieved by sucking at the breast Early oral erotic impulses are closely associated

ADVANCES IN PHYSICAL MEDICINE

From the Department of Rehabilitation and Physical Medicine
New York University College of Medicine
Howard A Rusk, M D , Director

Rehabilitation of the Amputee

In providing adequate care for the amputee, good surgery is not enough The physician must assume the responsibility for preparing the patient physically and psychologically for the amputation, see that the patient has proper instructions concerning stump care and exercise, that a proper prosthetic device is adequately fitted, and that the patient is trained in its use

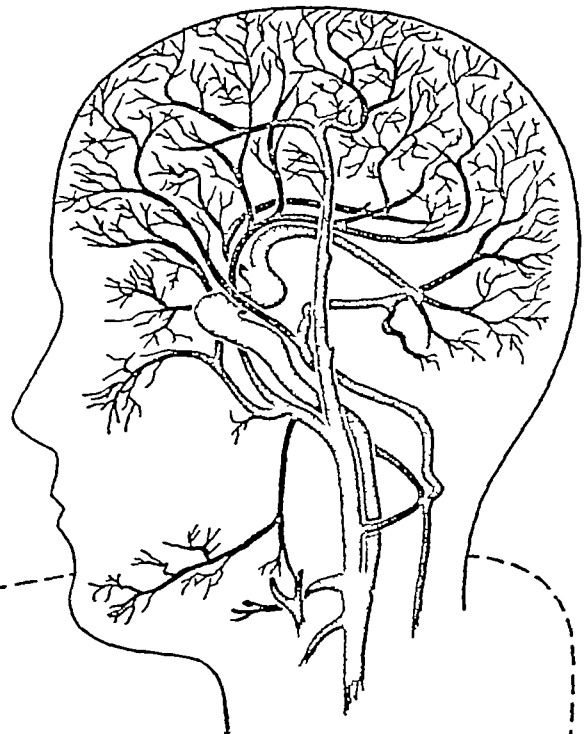
One phase of the management of the amputee to which the physician should give particular attention is the immediate postoperative period while the stump is being shrunk in preparation for a prosthetic device Even though the stump will shrink considerably during this period, it will also shrink more during the first six months an appliance is used During this period of six to eight weeks, the patient should be given graduated conditioning exercises in preparation for both crutch walking and the later use of the artificial limb Exercises in preparation for crutch walking should be centered on the finger flexors, triceps, abdominals, and quadriceps Exercises for the important triceps muscles should consist of arm extensions and push-ups from the prone or sitting position while still in bed, or in a wheelchair Hand squeezing using the top bed rail, sand or a rubber ball will strengthen the finger flexors The quadriceps may be strengthened by first merely flexing the quadriceps, later raising the knee and later adding resistance Sit-ups, raising the feet while in the prone position, and trunk-twisting are recommended for strengthening the abdominals Resistance against pulleys provide an effective method for exercising the stump

During this early period, measures should also be taken to prevent anatomic deformities For example, it is not an uncommon practice in many hospitals, following an above-knee amputation, to elevate the stump upon a pillow However, if such elevation is maintained for as long as two weeks, a flexion deformity will occur which will take from six to eight weeks of arduous, painful work before sufficient hyperextension can be regained for satisfactory walking The use of short crutches in bed and later on a mat will help prepare the patient physically and psychologically for later crutch walking The physician should caution the patient while he is on crutches to protect the stump A fall with a resulting hematoma and infection may necessitate reamputation A stump protector should always be worn during this period • The physician should also advise the patient as to the necessity for bathing the stump twice daily and changing stump socks daily

In advising his patient on the selection of a prosthetic device, the physician must be aware that not all limbs are suitable for all amputees Many amputees have never worn an appliance because someone has told them that they could not use an artificial limb Others, who never should have had a limb and were advised to get one, have never been able to use their appliances, and have discarded them An amputee cannot be expected to accomplish things beyond his capacity and ability It is better to underestimate the capabilities of an amputee and have him say, "See what I have accomplished," than to build his hopes too high and have him become disappointed and discouraged The physician must realize that not all amputees can wear artifical limbs profitably It has been noted that an above-knee amputee in the older age group cannot, as a rule, profitably be trained to use a prosthetic device if he is unable to perform a swing-through gait on crutches

The physician must point out objectively to the patient those skills which the patient can expect to achieve with proper training,

[Continued on page 1272]



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RESEARCH IN THE SERVICE OF MEDICINE

with food How oral needs are handled on the part of the person in authority (usually the mother) during the infant's early years will have a lasting significance on the individual's behavior pattern throughout life Especially does it influence the individual's eating habits, and his need for food and love Rigid feeding schedules that disregard hunger in the infant may in later life make food a "whipping post" for frustration and anxiety

The symbolic significance of food is seen in rituals involving family relationships and social traditions Many friendships are cemented by "breaking bread together," and countless worthy projects are launched with ceremonial banquets

In a recent study of undernourished starving men, a marked influence of appetite on emotion was observed These men had intense preoccupation with food or its symbol Common manifestations of this preoccupation were daydreaming or a sudden interest in scientific agriculture [8]

It is not the purpose here to discuss abnormal psychologic reactions, but it may be mentioned in passing that psychotic patients frequently develop delusions about food, and there are those who feel that food will poison them or cause other disastrous effects when taken into the mouth Other delusions associated with food are that eating will cause pregnancy or that the food will unduly influence behavior It is a matter of common knowledge that depression causes a loss of appetite This merely serves to establish further the deep psychologic relationship between emotions and appetite

The great emphasis which parents mistakenly put on the young child's eating habits may cause unconscious personal reactions in later years "You must eat this in order to be healthy" "If you don't eat this and so you will not be well" "You must eat to be big" "If you don't eat this something will happen to you" In such *seemingly* harmless statements, foundation is laid for the adult's neurotic reaction to his nourishment later in life Unconscious feelings of guilt arise when a person does not eat some particular food, misses a meal, or partakes of a "new" article of food

With further understanding on the part of adults of the relationship of emotional conflict to appetite will come more healthy attitudes about food and eating Because appetite is so intimately associated with the instinct of self-preservation and the preservation of the race, this subject deserves the serious attention of physicians, educators, and parents

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ADVANCES IN PHYSICAL MEDICINE

[Continued from page 1270]

and those skills which the patient has little chance ever of regaining Extreme caution must be taken in the latter, however, as it is unwise to tell a patient what "he can't do," for this cannot be determined, in most cases, until the patient has had adequate training

Training in the use of a prosthesis is essential if the amputee is successfully to be rehabilitated Such training can best be done by a team consisting of the physician, physical therapist, occupational therapist, and prosthetics specialist

Scientific Articles

ALZHEIMER'S DISEASE WITH CASE REPORT

HAROLD R BRODMAN, CAPT (MC), AUS, and J H FRIEDLANDER, M D ,
Northport, New York

(*From the Medical Service, Veterans Administration Hospital, Northport*)

SINCE 1907, when Alzheimer described a "peculiar disease of the cerebral cortex," a considerable literature has accumulated, consisting chiefly of case reports [1] This has been very useful in clarifying the clinical picture of this syndrome but less so from a histologic standpoint because little has been added to the histologic description since Alzheimer The case history will continue to be useful, particularly in classification of this condition, and may also eventually throw some light on possible cause

Wilson defines Alzheimer's disease as an affection beginning about middle life, consisting of subacute mental involution conjoined with transcortical symptoms of agnosia, aprasia and speech disturbance, and sometimes with transient phenomena referable to projection systems [2] Confusion, restlessness, excitement, and hallucinosis are often prominent Lack of sphincter control without local impairment and one or another kind of fit may also occur

Speculation in the literature has dealt with (1) the relationship, if any, that this condition bears to senility, (2) the question of whether or not it is a distinct clinical entity, (3) the differential diagnoses of Alzheimer's disease, Pick's disease, and senile psychosis, and (4) the various theories concerning pathogenesis

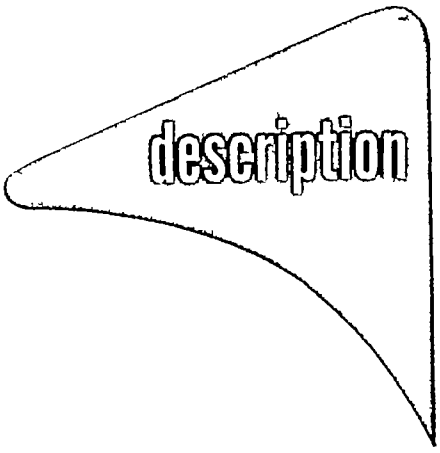
The relationship to senescence is discussed by Ferraro and Jervis who cite the similarity of histologic findings in Alzheimer's disease and in senility [3] Stern and Reed state that Alzheimer's disease is only an aspect of the process of aging, and Jervis and Saltz believe the disease constitutes an early form of senile dementia [4,5] On the other hand Malamud and Lowenberg discount the prevalent belief in relationship to senility [6] They do not believe that senility as a concept could be limited to the central nervous system and further state that the age of a patient is not, and should not, be used as a criterion for diagnosis

That the belief in the relationship of Alzheimer's disease to senility is prevalent is indicated by the frequent use of the term "presenile dementia" as a synonym for Alzheimer's disease The presenium is considered to be from forty-five to sixty years of age Now this is arbitrary and bears no relationship to senility other than a chronologic one It certainly has no relationship to the physiology of aging Yet a great reluctance to depart from the concept of relationship to senility or age is evidenced by the coining of the term "juvenile form of Alzheimer's disease" when the histologic picture of Alzheimer's was found in a still younger age group Barrett states that it is difficult to limit disease processes by age periods and believes that senility is not a matter of years, but of tissue aging, and that there seems to be no difference in the plaques and neurofibril changes in the senile and presenile other than a difference of degree

Many of the case reports were questioned by other investigators as to whether or not they were actually cases of Alzheimer's disease, the assumption being that this condition was a distinct clinical entity This assumption is by no means unanimous Stern and Reed, in support of their contention that Alzheimer's disease is not a well-defined clinicopathologic entity, point out that intracellular neurofibrillary changes similar to those described by Alzheimer in senile and presenile dementia have been seen after starvation, after extirpation of the thyroid and parathyroid, and in cholera, dysentery, and uremia [4]

Jervis, in all his reports, considers Alzheimer's disease as a definite clinicopathologic entity, although he does state that agreement is lacking as to the clinical and pathologic features of the disease [2,5,8] Kufs reports a case of an early form

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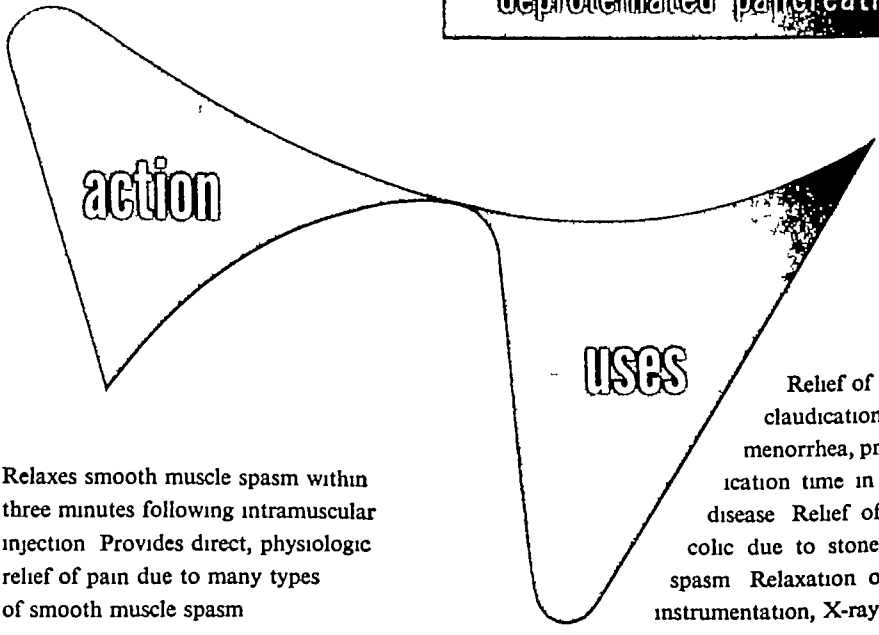


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illy, and euphoric, smiling, laughing, whistling, inging, and grinning foolishly He was diagnosed lementia precox, hebephrenic type, and transferred o the Bedford Veterans Hospital in October, 1945

At the latter hospital he was inaccessible, appreiensive, irrelevant, and confused. He was unable o dress himself and did not care what became of imself He bumped into everything on the ward. At times he yelled incoherently, bleated like a sheep, nd smeared excreta on himself and on the walls He was retarded in his answers to questions, seemed nuddled, and mumbled a few words He was disoriented in all spheres He showed psychomotor etardation but had numerous compulsive movenents. He was unable to dress or undress himself He heard voices saying "go home, go home." He eceived 14 electric shock treatments without mprovement, remaining noisy, assaultive, and self-ibusive. He required frequent restraint Physical nd neurologic examinations at this hospital were legative. He was diagnosed dementia precox, nixed type, and transferred to the Veterans Administration Hospital, Northport, on October 25, 1946

Past History —The patient was born in New York City and was described as being a healthy, quiet, self-sufficient child who got along well with his ublings. The patient's father died when he was ine years old and his mother a short time thereafter This broke up the family, and the patient vent to live with an older sister He worked as a ootblack after school, participated in sports, and vas graduated from junior high school, being considered a good student After graduation he vorked as a laundry truck driver for eight to nine ears but lost his job in 1931 In 1933 he joined the Civilian Conservation Corps for one year He contracted gonorrhea in 1934. Prior to his induction ie held various jobs, always maintaining a good ecord. His preinduction personality was friendly nd outgoing, interested in his environment He vas stable in mind, aggressive, decisive, and spontaneous, accepting and adjusting to new situations

The patient had a casual attitude toward entering the army For eight months he worked as a crewman on a 37-mm. antitank gun Once he was thrown into the air by an exploding shell but got up and walked away without ill effect He was sent overseas to Burma where, for nineteen months, he served in various capacities, always serving well, until a short time before his hospitalization when he was transferred from outfit to outfit There are no records of courts-martial or AWOL's

Family History —The patient's father was born in Italy in 1873 and was killed in 1918 in an accidental fall. His mother died of a "broken heart," three years after the death of her husband The patient was the fifth of nine children. There are no neuropsychiatric determinants in the family

Social History —The patient was an occasional drinker He had regular heterosexual experiences and had a "steady girl friend" before induction into the army He was never married.

Mental Examination —On admission to Northport the patient was in an excited state, kicking out wildly and screaming in an inarticulate wailing manner, especially when attempts were made to move or direct him. The expression on his face was one of confusion His mouth hung open, and he smiled vaguely when spoken to in a soothing tone In restraint he tried to assault all who came in contact with him He was incontinent of urine and feces He ate well, including everything put within reach of his mouth His attention could be caught by calling him by name He looked at the examiner and answered simple questions with "yes" or "no," in such a manner that it was felt that he did not comprehend the question From time to time he yelled incoherently and at times made conversation in thick incomprehensible tones An occasional word, such as "shoes," "good kid," "you handle me like a kid," or "you go home," was discernible His emotional state was thought to be one of diffuse anxiety and fear because of his inability to comprehend or interpret his environment, a catastrophic reaction to external stimuli

Physical Examination —This revealed a markedly emaciated, sallow-complexioned young white man, 5 feet 6 inches tall, and weighing 87 pounds There was marked generalized muscle wasting Examination of the heart and lungs was negative Fundoscopic examination showed moderate retinal arteriosclerosis The disks were sharply outlined and normal in color There were no other significant positive physical findings

On neurologic examination there was increased muscular irritability There was generalized muscular wasting Speech was thickened, blurred, and incomprehensible There was a fine tremor of the tongue Gait was slow and hesitant, and patient fell when left alone The patient exhibited repetitive sucking and swallowing activity of a reflex nature. The deep tendon reflexes were hyperactive and equal bilaterally It was impossible to gain the patient's attention for a sensory examination

Course in the Hospital.—During his stay at Northport, the patient was agitated, assaultive, and confused. He remained out of contact, screaming unintelligibly He was given a sodium amytal interview but showed no response The patient was treated with constant sedation, either chemical or hydrotherapeutic, high vitamin regime, and potassium chloride with no response He showed a progressive downhill course. He was incontinent of urine and feces In January of 1947, the patient had two generalized convulsive seizures, one day apart, lasting thirty seconds and two minutes each, respectively The patient eventually developed penumonia which did not respond to penicillin or sulfadiazine, and he expired on April 7, 1947, at the age of thirty-seven, three years after the onset of his present illness The premortem diagnosis was psychosis with organic brain disease

Laboratory Examinations.—Blood count, urine, and stool examinations were negative except during the febrile episodes Spinal fluid examinations showed normal pressure, globulin normal, 1 cell per cu. mm., total protein 25 5 mg per cent, gold curve zero in all dilutions, and Wassermann negative.

of Alzheimer's disease with what he believes were incidental findings of sclerosis of the olivary bodies and severe atrophy of the basal ganglia [9] However, it is possible that all the findings in this case were due to a single etiology He infers that there is no specificity in the histologic findings of Alzheimer's disease, since argentophilia is typical of all metabolic products deposited in the glial substance

Numerous papers have been written on the differential diagnosis of Alzheimer's disease These are concerned chiefly with differentiation from senile dementia and Pick's disease, both from a clinical and histologic standpoint Marchand differentiates Pick's disease from Alzheimer's on clinical and pathologic findings and states that the diagnosis may usually be made during the life of the patient [10]

Although the pathologic findings in Alzheimer's disease are somewhat different qualitatively from Pick's disease and differ quantitatively from senile dementia, the clinical differentiation is not one which can be made with any degree of certainty Bonfiglio differentiated clinically Alzheimer's and Pick's diseases as follows In Pick's disease there is an aphasia with gradual reduction of word material resulting in almost complete mutism (transcortical sensory aphasia), whereas in Alzheimer's disease there is a diffuse, all-round deterioration of speech of no particular pattern, with paraphasia, verbigeration, and logoclonus [4] This description sounds fairly clear-cut, but such clarity does not often obtain clinically Wilson, who admits the difficulty of clinical differentiation, suggests that intense motor activity is more characteristic of Alzheimer's disease than Pick's [2]

Jervis differentiates Alzheimer's disease from senile dementia on the histologic finding in the former of an intense microglial reaction around and within the characteristic plaques [5] He finds numerous microglocytes, showing severe degenerative changes, encroaching upon the Alzheimer's plaques This was not present in senile dementia There have been excellent clinical and histologic descriptions with differential diagnoses of Alzheimer's disease, senile dementia, and Pick's disease in the published reports and texts in considerably more detail than can be given here [2 7 11]

In discussing possible causative factors of Alzheimer's disease, we enter into the realm of conjecture In Malamud's second case, that of a fifteen-year-old boy, he points out that besides the typical findings of Alzheimer's disease, namely profusely distributed argentophil plaques and neurofibrillary changes, there were striking changes in the choroid plexus, the vessel walls being greatly thickened with thick proliferation of connective tissue around the vessels.[6] It w concluded that the entire histologic picture this case could be explained on the basis of primary vascular disease, the brain changes bein secondary to the changes in the choroid plexu This has not been particularly substantiated, no was it found in the case reported here

Lowenberg and Waggoner have suggested tha cases occurring before presenium with neuropathic familial history may in certain instances be of heredodegenerative origin [12]

Another interesting etiologic speculation is advanced by Braunmuhl who states that it is possible that the changes in the brain are the changes seen in any colloidal system, a dispersed colloidal state changed to a less dispersed state and eventually to condensation and coagulation.[11] This process, known as syneresis, is characteristic of the aging of any colloidal system, and what is known as a syneretic process in colloidal chemistry is equivalent to an atrophic process in neuropathology The following, an unusual case from the standpoint of age, presents most of the clinical and pathologic criteria of Alzheimer's disease

Case Report

The patient, a thirty-four-year-old white man, was first hospitalized at the request of his commanding officer on February, 1945, while stationed in Burma The commanding officer stated that the patient was "completely useless and acted in an unacceptable manner He couldn't adjust to any type of work or get along with his fellow soldiers. Private X is apparently simple-minded. He cannot be used on any job because he does not realize the responsibilities of such work. He wanders off on any job He eats from other men's mess kits, thinking that he has his own. He doesn't shave unless told to do so, doesn't bathe unless told to do so He gets lost from his own tent and his own bed and wanders about"

While hospitalized in the China-Burma India theater, the patient stated that the other men were picking on him and throwing powder at him. He complained of vague pain in his nose and back. The patient was quiet and cooperative although he remained seclusive At times he seemed dull and apathetic and at other times intense and apprehensive He was also confused, his memory was poor and he was disoriented as to time and place. He was unable to recall more than three digits and could not do the simplest calculations He was given the Kent Emergency Test and scored at seven years. He was diagnosed dementia precox, simple type, and sent to the United States where he was admitted to the Mason General Hospital in June of 1945

At Mason General Hospital he was restless, over active, silly, and unable to care for himself It was reported that he had auditory hallucinations. At this hospital he received 18 electric shock treatments but remained loud, boisterous overactive, restless,



FIG 3 Section of left superior frontal lobe showing numerous argentophil plaques (low, Bielschowsky's stain)

spinal cord at the pyramidal decussation and high cervical cord below the pyramidal decussation

The sections stained with hematoxylin-eosin and those stained with Nissl's method showed marked alterations in the neurons of the cortical areas and, to a lesser degree, in the basal ganglia. In the cortex there was a conspicuous decrease in the number of the neurons

Those that were present showed changes in shape, size, position, and structure. The cell bodies were distorted, narrowed, and twisted, and many apical dendrites of pyramidal cells were wavy or spiral. In several cells the triangular form was altered to that of stellar

Due to the narrowing there was a diminution of size, a definite shrinkage, showing many stages to the point where the cells were hardly identifiable

The polarity of the cells was upset, some deviated at a sharp oblique angle, others at about a right angle, while some at an obtuse angle to the stage where the cell became inverted in relation to the general pattern. In this positional alteration the usual layer arrangement was lost, and the cortex was represented by a thinned-out rim. In those cells where they were still identifiable, there was eccentricity of nuclei. The chromophilic substance was mostly fine, powdery, hazily defined, or absent With these neuronal alterations there was no satellitosis, no neuronophagia was observed.

The Holzer stain showed mild gliosis at the superficial border of the occipital cortex. In the other areas there were no excessive glia-fiber formations visible.

In the choroid plexus of the left inferior horn two psammoma-type bodies were found. In that area there was an increase of connective tissue fibers Elsewhere the tufts were well developed, and the cuboidal cell layer covering the pial stalks showed the usual arrangement

For the staining of the myelin, Weil's method was used There was no deviation from the usual in the distribution of the myelin in any of the sections

The most conspicuous alterations were found in the sections impregnated with silver by Bielschowsky s method. These alterations were twofold

1 Widely disseminated throughout the cortex of every part of the cerebrum and present more moderately even in the cerebellar cortex there were innumerable areas, mostly round, some oval, ranging from about 30 to 100 microns in diameter They were darkly colored on a tobacco-leaf gold background Most of them contained a more or less centrally placed, round core, around which there were irregular fragments of filamentous and granular substance, seemingly radiating from the central core toward the periphery This substance was denser at the outside rim, leaving a looser network or halo which was concentric with the core and the outer ring Some of the areas resembled a miniature wreath

2 In the remnant of the cerebral cortex, left among the widely and densely scattered argentophil formations, there were pyramidal cells whose neurofibrils were matted together at the periphery of the cells and darkly colored by silver The rest of the cell bodies, including the nuclei, were pale, golden yellow, and structural details could not be distinguished.

At many places the bunched-together, fused, sharply outlined neurofibrils formed loops and even twisted and intertwined filaments which assumed the appearance of a loosely woven basket in the shape of a former neuron, without any other identifiable remnant of the cell, however Indeed, occasionally only a dark, thick fragment of fused neurofibrils in the form of an inverted question mark was left of the pyramidal cell

Diagnoses.—Generalized brain atrophy, fenestration of the septum pellucidum (congenital), internal hydrocephalus, and presenile psychosis (Alzheimer's disease)

Summary

A case is presented which exhibited the clinical and pathologic features of Alzheimer's disease This case is unusual in that the disease manifested itself at the early age of thirty-four This case then becomes part of the so-called group of "juvenile forms" and lends weight to the small group of cases already described as being independent of the presenium These cases are important in considering the problem of the pathologic nature of Alzheimer's disease

The mental reaction this patient manifested was one of a slowly advancing dementia At an early stage he could not adjust to his environment or accept responsibilities Later he developed



FIG 1 Left frontal lobe illustrating neuron and fibrillary changes seen in four characteristic cells (high, dry, Bielschowsky stain)

Blood complement fixation test and precipitation test for syphilis were negative

Blood cholesterol was 267 mg per cent, and the bromsulfalein test was negative X-rays of the skull, spine, and chest were negative A gastrointestinal series showed a mild nutritional deficiency pattern of the jejunum manifested by distinct jejunal hypermotility

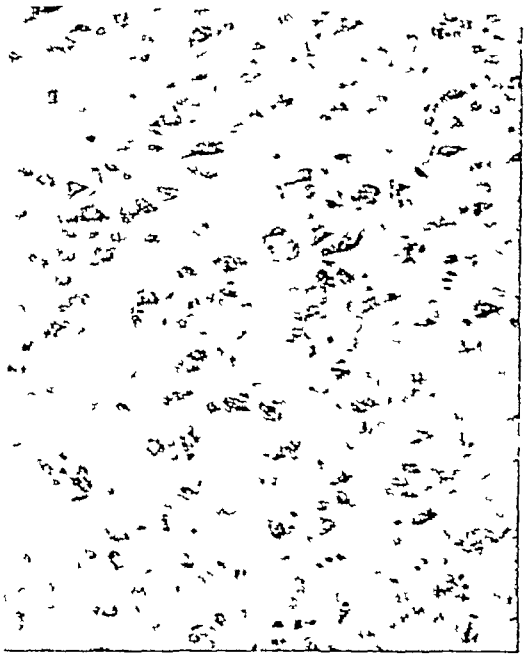


FIG 2 Section of left upper frontal lobe (low, Nissl stain)

Electroencephalogram during the few minutes when the patient was quiet showed a completely flat record with no alpha rhythm. This was reported as being suggestive of cortical atrophy

Postmortem Findings —Autopsy revealed bilateral confluent bronchopneumonia, generalized emaciation, atherosclerosis of the aorta, and atrophy of the testis However, on section of the testis the histologic picture was normal. There were no pathologic changes in the pancreas, suprarenal glands, or prostate

Gross Description of the Brain.—There was a generalized decrease in the size of the brain with some asymmetry It weighed 1,030 Gm. The left occipital pole was shorter than the right. Between the dura and pia mater there was an additional tan-gray, filmy membrane which was stripped with only moderate resistance from the undersurface of the dura. This membrane was about 1 to 2 mm. thick, and it extended from the region of the superior longitudinal sinus over the right and left cerebral hemispheres to the floor of the anterior and middle cranial fossa but not across the floor of the fossa. This membrane did extend across the dorsum of the cerebellum. There was some milky cloudiness of the pia over the parietal regions The cerebrospinal fluid was somewhat increased in amount It was clear and colorless

The 3 cm of the cervical spinal cord obtained were pigmented brown The blood vessels at the base of the brain had only slight fibrous and fatty changes

The right and left ventricles were markedly dilated throughout In the inferior horns the hippocampi were narrower than usual. There, as well as in the occipital poles, were areas where the dilated ventricles were separated from the surface by only 2 to 3 mm of brain substance

At about the middle of the septum pellucidum, there was an oval opening in each membrane. The openings were about 4 by 6 mm. in diameter and led into the cavum septi pellucidi, thereby establishing communication between that space and the lateral ventricles

The choroid plexi in the anterior parts of the lateral ventricles were thinner than usual. In the posterior portions of the inferior horns, they were about usual thickness

Microscopic Description —The following areas of the central nervous system were investigated histologically Of the cerebrum—left prefrontal, lateral, left frontal, superior (Figs 1-3), right orbital gyri, left caudate and lenticular nuclei, right caudate and lenticular nuclei, left central sulcus region, left inferior temporal lobe containing part of the inferior horn, right superior postcentral, left hippocampus, choroid plexus from the left inferior horn, hypothalamus, including the mamillary bodies, mesencephalon, pons, right occipital lobe (calcarine area), left occipital lobe (calcarine area), medulla oblongata and the choroid plexus of the IV ventricle, cerebellum—right hemisphere,

NEUROLOGY—UNDERGRADUATE TEACHING AND CLINICAL PRACTICE

WARDNER D AYER, M D , Syracuse, New York

THERE is at present a need for a greater neurologic interest and activity on the part of the internist and general medical man However, they often admit that they are poorly prepared and won't "put their hand to it" Much of this lack of interest reflects an earlier undergraduate disinterest

The third year student often approaches clinical neurology with resentment He has been repeatedly told that neurology is entirely built on that firm foundation of dread first year neuroanatomy which was once an almost insurmountable obstacle and which is still *terra incognita* to him He recalls how bitterly he suffered on that dreary trip around the rhinencephalon, that he strayed afield in the striae acousticae, was disconsolate and discouraged with Sherrington's integrations, and completely confounded by the differentiation between rigidity and spasticity in the *Macacus rhesus* monkey He then and there learned to dislike anything neurologic, and he doesn't take to it now

The teaching of neurology is relatively simple and can be very interesting It is only necessary first to review briefly and clarify this dread neuroanatomy, then teach long and well the neurologic examination, repeatedly show physical signs, and then give the important clinical entities with inclusive basic simplicity, on these the student can build intelligently Certainly there is no virtue in teaching all about the rare museum myopathies and dystrophies, the Westphal-Strümpell syndrome or Lindau's disease

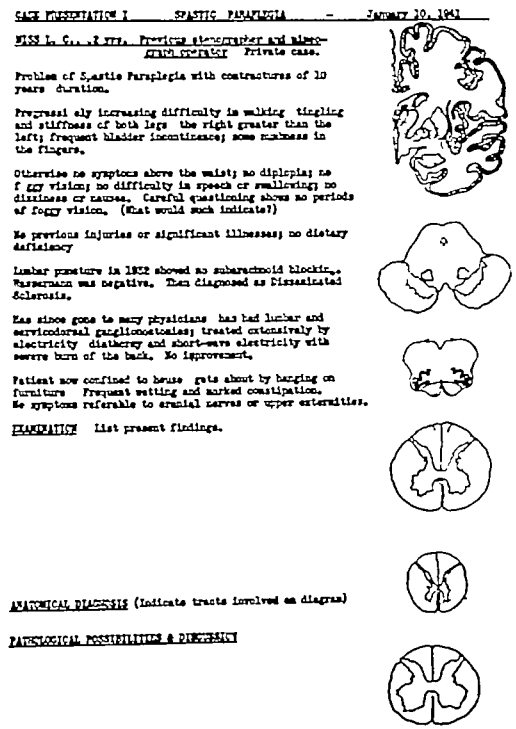
In 1935 to stimulate a greater student interest the writer began to teach clinical neurology by a concise, laboratory work sheet, syllabus method as a supplement to accepted and recommended neurologic texts A course of sixty hours was planned as a simple practical presentation of the more important disorders of the nervous system with the main endeavor to correlate the early fundamentals and to stimulate individual student thought and deduction

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CASE PRESENTATION I SPASTIC PARAPLEGIA - January 10, 1941

MISS L. C., 2 yrs. Previous gynecologic and neurologic consult Private case.

Problem of Spastic Paraplegia with contractures of 10 years duration.

Progressively increasing difficulty in walking; tingling and stiffness of both legs the right greater than the left; frequent bladder incontinence; some numbness in the fingers.

Otherwise no symptoms above the waist; no diplopia; no foggy vision; no difficulty in speech or swallowing; no dizziness or nausea. Careful questioning shows no periods of foggy vision. (What would such indicate?)

No previous injuries or significant illnesses; no dietary deficiency

Lumbar puncture in 1932 showed no subarachnoid blockage. Wassermann was negative. Then diagnosed as Disseminated Sclerosis.

Has since gone to many physicians has had lumbar and cervicodorsal ganglionectomies; treated extensively by electricity diathermy and short-wave electricity with severe burn of the back. No improvement.

Patient now confined to house gets about by barging on furniture Frequent wetting and marked constipation. No symptoms referable to cranial nerves or upper extremities.

EXAMINATION List present findings.

ANATOMICAL DIAGNOSIS (Indicate tracts involved on diagram)

PATHOLOGICAL POSSIBILITIES & DIAGNOSIS

FIG 1 Specimen case presentation sheet (reduced 1/3) showing transverse diagrams which are to be filled in by student.

Condensed from a paper presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Neurology and Psychiatry May 21 1948.

memory impairment for recent and remote events At times he experienced visual and auditory hallucinations He became confused, disoriented, hyperactive, and showed prolonged restless periods His intellectual deterioration progressed so that the patient became completely inaccessible This patient exhibited focal cortical signs of aphasia, paraphasia, apraxia, and agnosia On neurologic examination he showed incoordination, increased muscular instability repetitive sucking and swallowing activity of a reflex nature, hyperactive deep tendon reflexes and, later on, grand mal convulsions

The pathologic picture of generalized atrophy of the brain, with the microscopic findings of the Alzheimer's argentophil plaques and neurofibrillary changes, conforms to the classic description of Alzheimer's disease

The cases in the literature have been presented in essentially the same manner, and the pathologic studies have all been practically uniform in the technic of section and staining Hence, little has been added to our knowledge other than numerous conclusions of a strictly speculative nature as to the pathogenesis of this condition

Alzheimer, in his original discussion of this condition, stated that "beyond doubt there were many more psychiatric entities existing than are listed in our textbooks In many of these bizarre cases, study in the future will reveal that they are to be differentiated from known entities Gradually these pathologic studies will enable us to define more sharply and to classify these cases from the large groups in which they find themselves today" This was written in 1907 and has proved to be true However, beyond the fact that Alzheimer's disease is considered by most observers to be a distinct clinical entity, little else has been accomplished This is unfortunately true of a great many neurologic problems It is also true, however, that a great many neurologic problems, previously obscure, were clarified when study was directed away from the postmortem histologic findings and toward a more organic approach, embracing vascular, metabolic, and chemical studies However, in order to do this the diagnosis of Alzheimer's disease must be made during the life of the patient

Prepared with the technical assistance of Mr E. Schmuckwitz.

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TOXIC METALS CONSTITUTE INCREASING INDUSTRIAL HAZARD

Toxic metals are an increasing industrial hazard, according to Leonard Greenburg, M.D, New York, executive director of the Division of Industrial Hygiene and Safety Standards, New York State Department of Labor Writing in the March 26 issue of the *Journal of the American Medical Association*, Dr Greenburg says "The introduction of many new alloys and industrial processes has created environmental conditions wherein workers are often subjected to the dusts and fumes of toxic metals and the mists or gases of metallic compounds Rare metals which a few years ago were laboratory curiosities have suddenly assumed important roles in industry As a result, new disease entities are being encountered—for example, the pathologic manifestations (skin rash and skin ulcers, and irritation of the respiratory tract) resulting from exposure to beryllium, a metal almost unknown in industry as recently as ten years ago, and, in addition, exposures to old offenders are revealed in unexpected form. The toxic metals constitute an increasing industrial hazard because of the many new uses to which metals are being put. Prompt recognition of the industrial origin of the many obscure signs and symptoms, referable to almost any organ system of the body, is essential if the disease is to be diagnosed before irreversible changes have taken place."

Complete removal of the patient from exposure to the toxic metal or metals is usually necessary, even in mild cases of metal poisoning, Dr Greenburg emphasizes. Exposure to amounts of the toxic metals that would be harmless to well persons may be harmful to persons in whose systems the metals have already accumulated, he says. Although specifically physicians possess few drugs which are of value in poisoning from certain metals, persons suffering from arsenic poisoning and from acute mercury poisoning may be treated effectively with the chemical known as BAL, according to Dr Greenburg BAL, British Anti-Lewisite, was created to protect British soldiers against a feared German attack with lewisite

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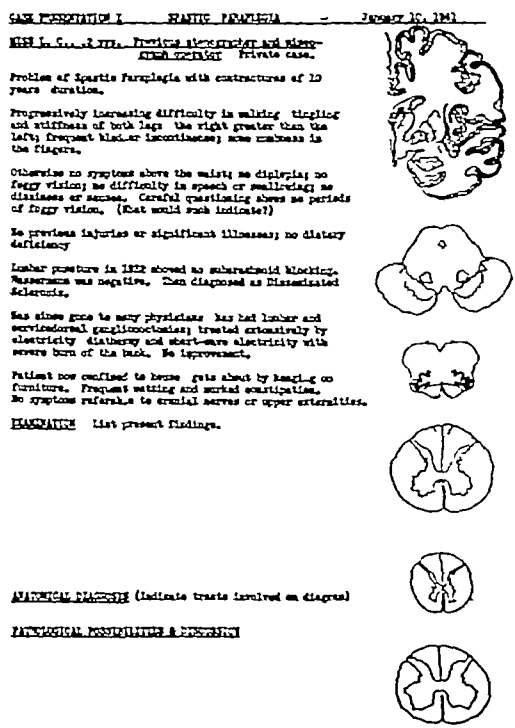
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Patient now confined to house gets about by hanging on furniture. Frequent wetting and marked constipation. No symptoms referable to cranial nerves or upper extremities.

DIAGNOSTIC List present findings.

ANATOMICAL DIAGNOSIS (Indicate tracts involved on diagram)

PATHOLOGICAL CONDITION & ETIOLOGY

FIG 1 Specimen case presentation sheet (reduced 1/2) showing transverse diagrams which are to be filled in by student.

Condensed from a paper presented at the 142nd Annual Meeting of the Medical Society of the State of New York, New York City Section on Neurology and Psychiatry May 21 1948.

4 The pathology is demonstrated when possible by gross specimens, otherwise by lantern slides from the writer's collection of both gross and microscopic material

5 One special four-hour period for sectioning of the hardened brain in the old Salpˆtrière manner

6 Questionnaire sheets are added from time to time for better orientation and review

This material when properly arranged and completed has made an individual spring binder textbook of real personal interest, pride, and value It is a student's own work Students have reported that in the subsequent years this value was enhanced by the addition of abstracts from the literature, reprints, interesting personal case reports, and particularly their own revisions

It has been the main intent to develop an expertness in history-taking, an accuracy in physical findings, an awareness of possibilities, and also a more systematic approach to other medical problems In addition, the importance of kindliness, patient understanding, and reassurance in the handling of all individuals has been stressed, with emphasis on the very great responsibility of keeping the chronic patient out of the hands of exploiting quackery

To repeat, the real major premise of this teaching is to spur the student constantly in his consideration of symptoms and signs to a clear visualization, a mind picture, of the underlying anatomic structures, the pathologic mechanics, and the "working of all the parts," and to think primarily and logically in such terms It might appear that the effort was to teach more of fundamentals and less of the clinical disease, but if this is so, it makes for the very "intellectual discipline" which is really a distinction of neurology!

What then have we taught? And what have we emphasized? Or have we overemphasized? The following lecture headings are here listed and briefly discussed These are given to each student in outline form

Lecture Headings

Historical Highlights—The evolution of our present neurologic knowledge and an interesting and cultural touch of medical history are presented with lantern slide illustrations from the famous Wolff Collection of Syracuse University (This consists of 15,000 portrait engravings of noted scientific men of all times up to and including Virchow in 1860) It is a matter of inspiration and interest to know of and to see the physiognomy of a few of these early pioneers and to know of their times Their early gropings, when helpless without knowledge of physiology and pathology, were really surprisingly good and in comparison serve to better fix our present-day knowledge Only one hundred years ago the phrenology of Gall and Spurtzheim was at its heighth It was a crude attempt at localization Certainly we have come a long way, but in what a short time!

Neurologic Examination—A most important chapter, it is the real sheet anchor of the teaching of clinical neurology *It is neglected* in the general course of physical diagnosis Without skill in this procedure the student is like a ship without a rudder The intelligent testing of the 12 cranial nerves and of the motor, reflex, and sensory status of the extremities of course must review and re-establish the entire anatomy and function of the brain, cord, and peripheral nerves

The writer's simple one-page examination form (Fig 2) is given without the listing of 36 reflexes—and what discouragement in the "six-pager"! Here they apply knowledge at first hand and use their own special senses—if they haven't atrophied from disuse They find that with training they can ordinarily make this examination in twelve minutes, that there is rarely a need of a forty-five-minute sensory study, and they also learn that a "reflexologist" or a "sexologist" is not a neurologist and that in these days of overspecialization there are too many amateur experts

In addition, they do not expect all diagnoses from an electroencephalograph "out of a satchel" or from other popular procedures and gadgetry, all too often thought infallible They learn the importance of the sensible, to-the-point history and what to ask for Without a good history they can't "make bricks without straw," and they are not overimpressed if a maternal grandparent had aneurisis or walked in her sleep!

The Brain Coverings and the Spinal Fluid—A valuable chapter which reviews the anatomy of the meninges, the arrangement of the ventricles, the subarachnoid space, the cisternae, and the formation of and circulation of the liquor cerebri A lantern slide review of the primary brain vesicles here is most helpful, this is also an excellent method to teach brain anatomy So we even revert back to embryology

The "sideline" lumbar puncture and the spinal fluid examination are illustrated in detail These two important procedures are much too often very poorly done

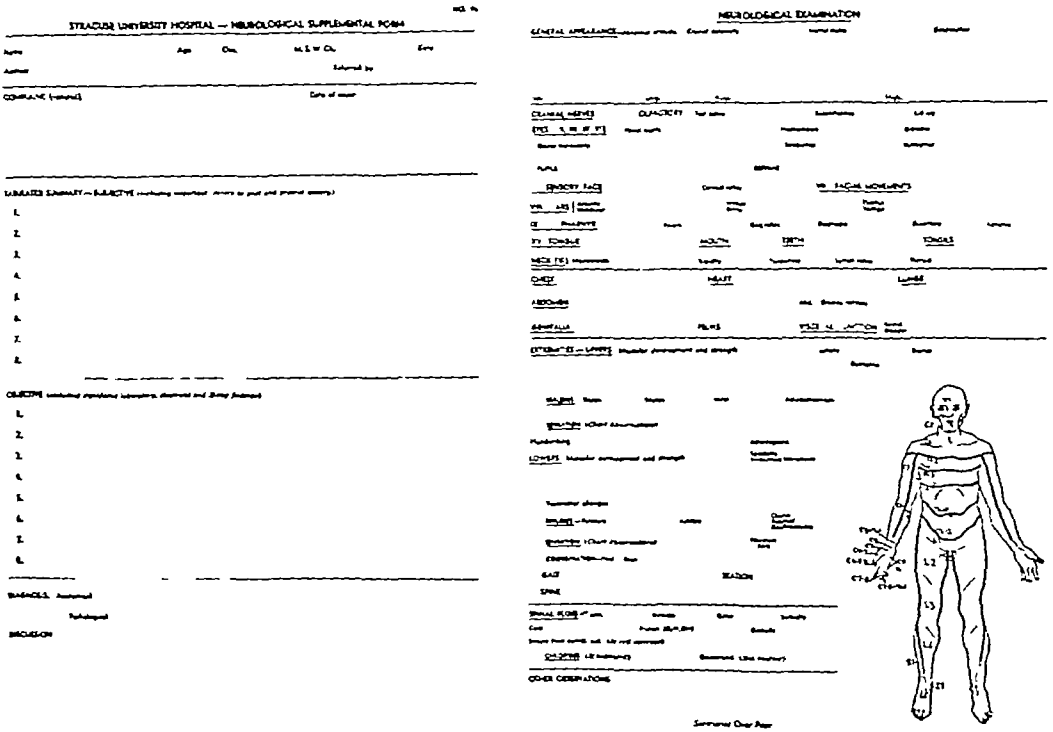


FIG 2 Neurologic examination form (reduced 1/2) Obverse summarizes the subjective and objective findings with diagnoses and discussion. Reverse is the reminder examination outline

Here then is retaught anatomy, embryology, physiology, and clinical microscopy, and of this how little they remembered! Without such knowledge there could be no intelligent and practical consideration or understanding of the meningitides

Meningitis —This chapter has been rewritten often in the past ten years This certainly is consequential medical neurology and demands, in addition to the preceding review chapters, a knowledge of bacteriology and inflammatory exudates Students know that a turbid spinal fluid demands an immediate and emergency smear, but can they do a Gram's stain? Also a real test of their knowledge is what to do with that less urgent spinal fluid with a 200 cell count and the question of its several implications

It is also surprising how many times the student doesn't recall that the low power of his microscope encloses one square millimeter, which is the unit of his counting chamber

The Spinal Cord and Its Diseases —General cord anatomy with its relation to the spinal column and the spinal fluid dynamics is demand knowledge What remarkable concentration of enormous vital control function is located in this, a lady's long finger of delicate soft consistency, hanging suspended in a bony canal! Here we must marvel at God's handiwork, and it is discouraging that so few students remember this most essential anatomy The anatomy, histology, and the long tracts are thoroughly reviewed by photostatic anatomic supplements and by cross-section exercise sheets, all of which are added to the notebooks

The grave responsibility which is carried in any case of progressing paraplegia is emphatically stressed The various disease possibilities and their differentiation with spinal fluid examination and dynamics are all carefully considered The cord tumor is still being missed and too often and too long masquerades as transverse myelitis or disseminated or subacute combined sclerosis Considerable time is given to disseminated sclerosis as an etiologic and pathologic enigma, and a difficult diagnosis not ever to be made at one sitting Students learn that the age of onset is under forty, usually under thirty, and in "brunette females" (wda), and is not to be confused with posterolateral sclerosis with onset over forty in gray-haired blondes!

Charcot's amyotrophic lateral sclerosis and its related progressive muscular atrophy are briefly and concisely given as a chronic and hopeless disease which the student must know, but other rare conditions along with syringo-

myelia and Fredreich's ataxia are only mentioned The Weigert slides of these may be instructive in demonstrating cord tracts, but they are not the important or frequent cord diseases such as the usual board examiner may indicate

Poliomyelitis —This chapter is given in considerable detail, perhaps because of the writer's longstanding personal interest in it It serves as an excellent review of the nature of viruses, of the lower motor neuron, and, especially important, the mechanics of respiration with a differentiation of the bulbar from the cervical cord respiratory paralysis It is then realized how fortunate it is that the phrenics have a high cervical cord level

Neurosyphilis —Here is a review of its early but post-Columbian history, the general nature of spirochetes, and the special characteristics of that darting, gleaming, twisting, pale spirochete, the Treponema pallidum, "the destroyer of the house," the Bordet-Gengou fixation of the complement, the general pathology, and the three-phase cerebral pathology of this disease Its therapy has now been rewritten several times to great advantage

Brain Dissection.—In a four-hour exercise a hardened brain is sectioned by two students each This is done in the Salpêtrière manner, filling in outline diagrams as advocated by Globus They do this with real enthusiasm, it registers mighty well, and they take home the brain stems in their pockets Many remark that only then did they arrive at a real practical concept of brain structure A similar anatomic review exercise on the heart would be a great help to every young cardiologist

Cerebral Localization.—This is reviewed with special work sheets, and its occasional treachery is remarked Aphasia is given most simply as motor or sensory phenomena, and its more complicated confusing and controversial discussion is avoided at this undergraduate level

Increasing Intracranial Pressure —This brings out a very practical review of cerebral blood flow and physiology Its mechanics and signs are stressed as of great importance in cranial trauma and other space-displacing masses Here we invade but supplement the surgical field

The Brain Tumor —The brain tumor is not common, later in practice the student may see but one or two a year However, it is covered quite fully with many illustrative case reports and photographs, because it serves an excellent purpose in bringing out, in addition to its variable symptoms and signs, an excellent review of brain anatomy, localization, and altered endocrinology The nature and types of headache and convulsive seizures are discussed

Intracranial Hemorrhage —The circulation of the brain is thoroughly stressed and reviewed with a detailed knowledge of the circle of Willis with its marvelous capacity for collateral supply The frequency of aneurysms in this location with their relationship to subarachnoid hemorrhage is pointed out The peculiarity of the thin-walled cerebral vessels with no media and practically no vasomotor supply is demonstrated, also that these vessels do not contract in spasm or dilate with stellate ganglion injection (popular ideas to the contrary)

Apoplexy, whether due to hemorrhage, to thrombotic closure *in situ*, or to an embolus whipped up from a heart or a lung, is the most frequent of all neurologic diagnoses Clinically it must be considered carefully in a more realistic anatomic, physiologic, and pathologic manner So much is done when there is so little to do! Only a few intracerebral clots lend themselves to surgical removal Indiscriminate angiography is severely condemned The importance of the collecting or venous sinuses and the bridging veins in cerebral trauma is accentuated, and the neurologic and pathologic aspects of cerebral trauma are thoroughly presented Again we have surgical overlapping but to its advantage

Extrapyramidal Tract Diseases, Encephalitis, Epilepsy, Neuritis, and Neuronitis —A discussion of these disease entities concludes these formal outline lectures

Case Presentations

The 30 to 35 actual patients that were presented covered a wide spread of clinical instruction, most often with no relation to the current lecture, but this was no disadvantage The case epitomizations were often prepared by the students, only they certainly had to be edited! The cross-section work diagrams were of a great help, as were the analytic questions and questionnaire sheets meant for crystallizing study, reference, and review Students did not walk out of a clinic and forget it

When these prepared sheets were assembled, photostats and photographs inserted, the notebook was completed Final grades were partly dependent upon this complete notebook This possibly reflects the old drawing book days of pathology or histology, but students still have to be checked and marked Coercion in graduate students should seem unnecessary, but such marking is unfortunately still unavoidable

Conclusions

Neurology is "slipping" as a sharply limited specialty of experts Such experts are, of course, needed, but there are too few of them Hence much of it is falling back into internal medicine, and the medical man must be better prepared for it

The brain is the most marvelous structure in the entire universe, a "holy of holies," and as a matter of pride it should be known better It has been neglected sadly

The writer is certain that there is overemphasis on the vast complexity of medicine, but even if such were true, it should not preclude an interest and more practical knowledge of neurology The need for more interesting, simplified, and stimulating neurologic teaching as a part of the department of medicine is stressed

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SCOPOLAMINE IN VERTIGO

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DIZZINESS, at times associated with vague abdominal complaints, at times with nausea or vomiting, is a symptom complex frequently encountered in practice In itself neither diagnostic nor pathognomonic of any specific disorder, it may be totally disabling and if severe enough will force the patient to bed There, relief may be obtained only if all movements of body and head are avoided The milder case, while ambulatory, will state that invalidity begins unless stooping or turning movements are either completely avoided or carried out slowly

It is assumed that the seat of the trouble is the vestibular portion of the inner ear where central or peripheral stimuli cause a disturbance in equilibrium If auditory symptoms are also present, we consider it Ménière's syndrome Dizziness alone without auditory symptoms is much more often the complaint This disturbance may be part of many general diseases There are, however, many cases in which the most painstaking investigation fails to find objective evidence of any disorder The outstanding feature of all cases is that vertigo is either started or aggravated by motion This means by postural changes of body or head

This observation suggests a therapeutic approach of value in travel sickness, in which motion also produces the identical symptom complex In air sickness and sea sickness scopolamine is at this time the drug of choice [1,2] True, evaluation of treatment is difficult in a condition in which already, from a diagnostic point of view, objective findings are lacking However, while symptomatic therapy is attempted, observation and study continue toward specific diagnosis, as well as toward specific treatment whenever possible and indicated

With this in mind, 60 patients in whom dizziness was the main complaint and who had not found relief by other means or drugs, were treated with scopolamine. A preparation of scopolamine aminoxide hydrobromide was prescribed ($^1/_{125}$ grain, 1 to 2 pellets, three times a day before meals), as it is equally effective as the mother drug but not so toxic and does not induce tolerance [3] Out of this group, 57 patients stated that this drug restored their normal equilibrium and made it possible for them to continue their respective work. If dizziness recurred when the drug was stopped, readministration proved equally effective The three cases in which vertigo was not relieved proved to be psychoneurotics who required treatment in this direction

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PLACENTA PREVIA A TWELVE-YEAR STUDY

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DURING the past decade, changes in technic and treatment of placenta previa at Morrisania City Hospital were introduced to improve the result to mother and child These changes are best analyzed by dividing the cases of the past twelve years into three groups designated as group A (1935 to 1938), group B (1939 to 1942), and group C (1943 to 1946), as shown in Fig 1

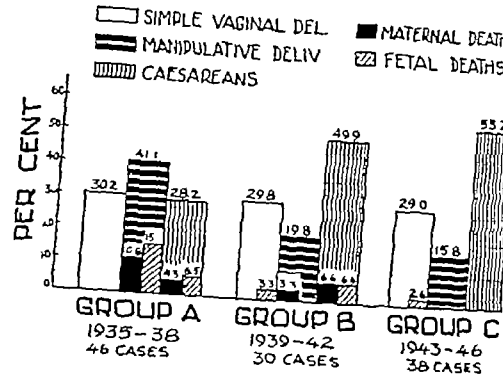


FIG 1

Material Studied

Incidence —The total number of deliveries from 1935 through 1946 was 13,684 (Table 1) Placenta previa was diagnosed 114 times, an incidence of 0 83 per cent, or one in 120 cases One patient had placenta previa twice

TABLE 1.—INCIDENCE

	Deliveries	Placenta Previa	Rate	Per Cent
Group A	5 616	46	1 122	0 82
Group B	4 416	30	1 147	0 62
Group C	3 652	38	1 96	1 04
Total period	13 684	114	1 120	0 83

age group (Tables 2 and 3) This is in keeping with the general view that placenta previa is mainly a disease of multiparae In our series, 79 9 per cent, or 91 cases, were multiparae, and 20 1 per cent, or 23 cases, were primiparae

Varieties —The determination of variety is an academic one, for what is seemingly a central placenta previa at one finger dilatation may, if labor progresses, become a *partial or marginal type* (Table 4) Similarly, a marginal or *lateral implantation* may not become palpable *until dilatation of the cervix* has progressed sufficiently Partial placenta previa

TABLE 2 —AGE DISTRIBUTION

Age Groups	Group A Per Cent	Group A Number	Group B Per Cent	Group B Number	Group C Per Cent	Group C Number	Total Period Per Cent	Total Period Number
15 to 20	6 5	3	10 0	3	13 2	5	9 6	11
21 to 25	17 4	8	16 6	5	26 3	10	20 1	23
26 to 30	21 7	10	36 6	11	21 1	8	25 4	29
31 to 35	32 6	15	23 3	7	28 9	11	28 9	33
36 to 40	19 6	9	10 0	3	10 5	4	14 0	16
Over 41	2 2	1	3 3	1		0	1 7	2

TABLE 3 —GRAVIDITY FOR TOTAL PERIOD

Gravidity	Per Cent	Number
Para 0	20 1	23
Para I	20 1	23
Para II	20 1	23
Para III	16 7	19
Para IV or more	22 8	26

TABLE 4.—VARIETIES OF PLACENTA PREVIA

	Group A Per Cent	Group A Number	Group B Per Cent	Group B Number	Group C Per Cent	Group C Number	Total Period Per Cent	Total Period Number
Central	26 1	12	23 3	7	10 5	4	20 1	23
Partial	36 9	17	26 6	8	31 6	12	32 4	37
Marginal	32 6	15	26 6	8	34 2	13	31 5	36
Low implant	4 3	2	23 3	7	23 7	9	15 8	18

Age Distribution and Gravidity —Placenta previa occurred in increasing frequency with advancing years up to the thirty-one to thirty-five comprised 32 4 per cent, or 37 cases, marginal 31 5 per cent, or 36 cases, central 20 1 per cent, or 23 cases, and low implantations 15 8 per cent, or 18 cases

Onset of Bleeding —Bleeding in placenta previa is not restricted to the last trimester of

Presented before the Bronx Gynecological and Obstetrical Society May 26 1947

TABLE 5.—ONSET OF BLEEDING

	Group A		Group B		Group C		Total Period	
	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number
Before 28 weeks	15 2	7	16 6	5	28 9	11	20 1	23
29 to 32 weeks	23 9	11	30 0	9	13 2	5	21 9	25
33 to 36 weeks	32 6	15	40 0	12	26 3	10	32 4	37
37 weeks (term)	28 3	13	13 3	4	31 6	12	25 4	29

pregnancy Twenty and one-tenth per cent began to bleed before twenty-eight weeks of gestation (the earliest at twenty weeks), whereas 79 9 per cent bled during the last trimester (Table 5)

the viable babies, those born under twenty-eight week gestation are excluded, together with the fetuses dead before treatment, no matter what the period of gestation The resultant corrected fetal mortality was 21 7 per

TABLE 6.—TYPE OF BLEEDING ON ADMISSION

	Group A		Group B		Group C		Total Period	
	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number
Initial	69 6	32	90 0	27	63 2	24	72 8	83
Repeated	30 4	14	10 0	3	36 8	14	27 2	31

Type of Bleeding.—The initial bleeding, varying from mild to profuse, caused 72 8 per cent, or 83 cases, to be hospitalized (Table 6) The remaining 27 2 per cent had repeated, small episodes of bleeding for more than one day before they were admitted It is significant that no patient died from the initial hemorrhage

Condition on Admission.—Eleven and four-tenths per cent, or 13 cases, were judged to be in poor condition on admission, as evidenced by the amount of blood loss, drop in blood pressure, rapid pulse, reduced hemoglobin, or shock

Maternal Mortality and Morbidity.—There were ten maternal deaths in the twelve-year period, an incidence of 8 8 per cent (Table 7) Most of the deaths occurred in group A, which had seven, group B had three, and there were no deaths in group C (Fig 1) These deaths and their significance will be discussed later The maternal morbidity, defined as 100 4 F for two or more days exclusive of the first twenty-four hours, was 30 4 per cent, or 14 cases, in group A, 16 6 per cent, or five cases in group B, and 17 4 per cent, or six cases, in group C

Fetal Mortality.—The gross fetal mortality for the entire series was 45 6 per cent (Table 8) In order to determine the effect of treatment on

cent, or ten cases, for group A, 10 0 per cent, or three cases, for group B, and 2 7 per cent, or one case, for group C (Fig 1)

Methods of Treatment.—The methods of treating placenta previa fell into three main categories (Fig 1, Table 9) Method I included the cases treated by rupture of the membranes and simple vaginal delivery Method II included the manipulative vaginal deliveries in which the hydrostatic bag, Braxton-Hicks or internal version and breech extractions were used, singly or in combination Method III consisted of the cases treated by cesarean section The three methods of treatment were analyzed by groups and the results totaled for the twelve-year series

Simple vaginal delivery (method I) was done in approximately 30 per cent of groups A, B, and C, respectively Manipulative delivery (method II) declined from 41 1 per cent in group A to 19 8 per cent in group B, and to 15 8 per cent in group C Cesarean section (method III) increased from 28 2 per cent in group A to 49 9 per cent in group B, and to 55 2 per cent in group C, or double that of group A This shift from manipulative vaginal deliveries to cesarean sections occurred during the same periods that resulted in a reduction of the fetal mortality from 21 7 to 2 7 per cent

Causes of Deaths.—The ten deaths of the

TABLE 7.—MATERNAL MORTALITY AND MORBIDITY

	Group A		Group B		Group C		Total Period	
	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number
Deaths	15 2	7	10 0	3			8 8	10
Morbidity	30 4	14	16 6	5	17 4	6	21 9	25

TABLE 8.—Fetal Mortality

	Group A		Group B		Group C		Total Period	
	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number
Gross mortality	48 0	22	43 3	13	44 7	17	45 6	52
Corrected mortality	21 7	10	10 0	3	2 7	1	12 3	14

series are summarized as follows Group A had seven deaths, four of which resulted from manipulative vaginal delivery Three of these four had fatal hemorrhages, of which one was due to a ruptured uterus, one from severe cervical lacerations, and the remaining one resulted from intrapartum bleeding behind a hydrostatic bag The fourth patient died of peritonitis secondary to a ruptured uterus The fifth death in group A had a manipulative vaginal delivery and died of a subarachnoid hemorrhage twelve hours postpartum Although this death from subarachnoid hemorrhage cannot be attributed to the manipulative vaginal delivery, the patient did have placenta previa which must be considered a contributory cause of death The remaining two deaths in group A resulted from cesarean sections Classic sections were done in both instances and both died of peritonitis

Group B had three deaths, one of which was the result of a manipulative vaginal delivery This patient died of hemorrhage following a ruptured uterus The remaining two deaths in group B had low flap cesarean sections One died of peritonitis and the other of "obstetric shock." No chemotherapy was available during the years of groups A and B

Group C had no maternal deaths

Treatment of Placenta Previa

The essential objective in treating placenta previa is to minimize and replace blood loss and to prevent infection By avoiding any unnecessary manipulative procedure that might increase bleeding or introduce infection, the maternal morbidity and mortality is lessened Fetal mortality can be diminished by the employment of the least traumatic measures and postponing treatment, whenever feasible, until the period of viability

Central Placenta Previa.—It is generally agreed that the proper treatment of central placenta previa is cesarean section, regardless of the period of viability Seventeen of the 23 central placenta previas in this series were sectioned The only exceptions were those cases in which the cervix was fully dilated on admission, permitting a rapid extraction of the placenta and fetus Of the six cases delivered vaginally, five were multiparae, all were fully or almost fully dilated on admission, leaving no time for cesarean section Anything less than full dilation would make vaginal delivery a hazardous procedure because of the danger of increased hemorrhage and damage to the very friable cervix and lower uterine segment There were three maternal and three fetal deaths in those central placenta previas treated by section, and no maternal and one fetal death in those delivered from below Two of three maternal deaths were due to peritonitis after classic cesareans They occurred in the cases of group A when chemotherapy was not available The third patient died of obstetric shock three hours after a low flap cesarean, despite three transfusions

Low Implantations.—Fifteen out of 18 cases of low implantations were treated by early rupture of the membranes which allowed the presenting part to compress the placenta If the patient was not in labor or if labor was not active, in addition to rupturing the membranes, a medical induction of castor oil, enema, and pitocin was given As a rule, labor progressed rapidly after rupture of the membranes or following the use of pitocin Three cases, two of them primiparae, were treated by cesarean section because of bleeding deemed too profuse to be controlled by rupture of the membranes

Marginal and Partial.—These two varieties of placenta previa call for the keenest clinical judgment In the early years of this series, many such cases were treated vaginally by bagging, version, or packing the cervix and vagina The resultant maternal and fetal mortality and maternal morbidity was far from satisfactory A decision was made to do cesarean sections in these marginal and partial varieties if the patient was a nulliparae, the cervix thick and dilated less than three fingers

TABLE 9.—Methods of Treatment

	Group A		Group B		Group C		Total Period	
	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number
Simple vaginal	30 2	14	29 8	9	29 0	11	29 7	34
Manipulative vaginal	41 1	19	19 8	6	15 8	6	27 0	31
Cesarean	28 2	13	49 9	15	55 2	21	42 9	49

Multiparae with thick, undilated, rigid cervices were also sectioned This shift in type of treatment is depicted in Table 9 and Fig 1 The manipulative deliveries dropped from 41 1 per cent in group A, to 19 8 per cent in group B, and 15 8 per cent in group C, whereas the cesarean sections increased from 28 2 per cent in group A, to 49 9 per cent in group B, and 55 2 per cent in group C

This important change in policy saved lives and justified the rise in incidence of cesarean sections The maternal mortality fell from 15.2 per cent in group A, to 10 0 per cent in group B with no deaths in group C The fetal mortality likewise improved from 21 7 per cent in group A, to 10 0 per cent in group B, and only 2 7 per cent in group C There was also a corresponding decline in maternal morbidity from 30 4 per cent in group A to 17 4 per cent in group C

There were seven maternal deaths among the partial and marginal varieties Five of these occurred in Group A and were all treated by manipulative vaginal delivery Three deaths were due to hemorrhage, one to peritonitis secondary to a ruptured uterus, and one to subarachnoid hemorrhage Of the two deaths in group B, one had a manipulative vaginal delivery resulting in a ruptured uterus and hemorrhage The other patient died of peritonitis seven days after a low flap cesarean section

Discussion

In properly evaluating the decrease in maternal mortality and morbidity, it must be cited that our blood bank was in operation during the latter eight years (groups B and C) of the series, making blood in almost unlimited quantities promptly available Chemotherapy and plasma were in use during group C, but penicillin was not available in adequate amounts except during the last year of group C

Our experience has shown, therefore, that with the exception of the low placental and marginal implantations, placenta previa is best treated by cesarean section unless the vaginal findings are such as to indicate a simple, safe delivery These vaginal findings are worth stressing a thin, soft cervix, three or more fingers dilated, with the placental edge palpable, bleeding slight, patient in active labor, and preferably a multiparae

Although manipulative vaginal deliveries are to be condemned because of their attendant trauma, Braxton-Hicks version may be a useful procedure on the rare occasion when a multipara with a small fetus and a cervix sufficiently dilated to permit the introduction of two or more fingers Extreme caution must be exercised by doing the maneuver slowly, and after a 1- or 2-pound weight is attached to the leg, the labor and delivery is allowed to proceed spontaneously Unwarranted haste results in a high incidence of severe cervical lacerations and ruptured uteri

The proper management of placenta previa starts the moment the patient is admitted to the hospital To prevent any oversight due to lack of experience, the following regime has been made compulsory

1 The interns are instructed to do no rectal or vaginal examinations on any bleeding case

2 The resident is immediately notified when a bleeding case is admitted, and he takes a careful history of the bleeding

3 The patient is typed, including the Rh factor, blood is cross matched and placed on reserve in the blood bank.

4 A member of the attending staff is notified and must see the patient He then decides whether immediate treatment is to be instituted and reports his findings to his superior

5 If the patient is bleeding actively, vaginal examination is not deferred The operating room is prepared for a cesarean section The vaginal findings then decide whether the case is to be treated vaginally or abdominally, as discussed previously

6 If the bleeding is slight or has ceased, the patient is kept in the hospital and not examined vaginally, except by speculum to exclude other pathology, until the fetus has attained viability or bleeding ensues

7 If the recurrent bleeding warrants, vaginal examination is very carefully made while an intravenous infusion is running, with blood on hand and the operating room ready There is no further procrastination after the recurrent bleeding, even if the fetus is not viable

8 Whenever vaginal delivery is decided upon, the member of the attending staff must stay with the patient until she is delivered It is worth noting that once vaginal delivery has been chosen, it has never been necessary to revert to cesarean section

The diagnosis of placenta previa in this series was made solely on the history and clinical findings X-ray diagnosis by soft tissue technic has not been satisfactory at this hospital Air or contrast media cystograms have proved of little value except where the presenting part is closely approximated to the cervix

Conclusion

1 Placenta previa should, in almost all cases, be treated in one of two ways (*a*) rupture of the membranes followed by simple vaginal delivery, or (*b*) cesarean section

2 The choice of treatment is not guided solely by the type of placenta previa but also by the amount of bleeding, the parity, age of the patient, condition of the cervix, degree of dilatation, activity of labor, fetopelvic disproportion, and viability of the fetus

3 Manipulative vaginal delivery has practically no place in the modern treatment of placenta previa

4 Temporizing in the interest of the fetus is justifiable in treating certain cases of placenta previa

5 The prime consideration in treatment is the mother, but by doing more cesarean sections the fetal salvage has also increased

6 Such adjuvants as blood, plasma, chemotherapy, and penicillin probably play as important a role in the reduction of maternal mortality as does the actual treatment

Summary

1 One hundred fourteen cases of placenta previa are reviewed over a twelve-year period, an incidence of 0 83 per cent

2 The changing trends in treatment, with almost complete elimination of manipulative vaginal deliveries, are analyzed

3 Maternal mortality was 15 2 per cent in the first four years of the series, 10 0 per cent in the second, and none in the last four years Total for the series was 8 8 per cent

4 Fetal mortality (corrected) was 21 7, 10 0, and 2 7 per cent, respectively, for the three groups Total for the series was 12 3 per cent

Grateful acknowledgment is made to Dr Abraham B. Tamis for his encouragement and criticism of this work.

PREPAYMENT MEDICAL CARE

According to a report of the Council on Medical Service of the American Medical Association on April 15, 1949, the rapid and orderly growth of voluntary prepayment medical and hospital care plans has been one of the striking and stimulating economic developments supported by American medicine during the past fifteen years. The initiating and propelling force of these plans was the medical profession acting through its local and state societies and later its national organization. This movement has attained national proportions. At the present time over 30,000,000 people are covered by Blue Cross type hospital insurance and over 10,000,000 by Blue Shield type medical care insurance This stimulus and the accumulated experience gained by these organizations have prompted many private insurance companies to enter this field, and they are making substantial contributions toward the accomplishment of our ultimate objective, namely—voluntary health insurance at a nominal cost for all the people in the United States. The total number of persons covered by all voluntary agencies is 55,000,000 for hospitalization and 37,000,000 for surgical or medical care

The American Medical Association is not engaged in the insurance business and has no intention of giving a preferential standing to any one type of voluntary plan The American Medical Association does believe, however, that it has a definite function to perform, that of evaluating any insurance plan presented to the people, thus protecting them as far as possible against unscrupulous or unsound plans. The American Medical Association further believes that the people should be free to purchase the type of health security they desire. To this end the Council on Medical Service has for the past four years critically examined various plans and has given its approval to numerous plans operating on a local or state basis. The Council has felt the need for a national organization which would act as a trade and coordinating agency for all medically sponsored plans.

We therefore recommend

1 The formation of a national coordinating agency representing all qualified voluntary prepayment plans in accordance with the proposal made to the Board of Trustees by the Council on Medical Service, February 10, 1949

2 That there shall be no official connection between the American Medical Association and the Associated Medical Care Plans. However, the American Medical Association will continue to approve or disapprove all voluntary medical care plans

3 The recognition of AMCP as a trade organization of member plans and Blue Cross as occupying a similar position for voluntary prepayment hospital care plans.

4 The recognition of the responsibility of the American Medical Association to

(A) Promote the principle of voluntary insurance by educating the people as to their need for such coverage and by obtaining full cooperation from state and county medical organizations in the local field.

(B) Inform the American people of the availability of approved plans that propose to supply on a prepayment basis security against the economic hazards of serious illness.

RADIOLOGIC STUDY OF MASTOID BONE IN INFANTS IN CONJUNCTION WITH ANATOMIC AND PATHOLOGIC INVESTIGATIONS

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IT HAS long been recognized that mastoiditis is a frequent complication of diseases during infancy However, the earliest age at which mastoid cells can be demonstrated roentgenologically has not been definitely established Pneumatization of the mastoid bone is inconstant and irregular and gives rise to many normal variants at different ages in different individuals of the same age and in the mastoid bones of the same individual A group of infants ranging from newborn to one year of age was investigated radiologically Anatomic and histologic studies were made where possible to corroborate the roentgenogram findings.

The mastoid process is absent at birth, or, if present, is very small Cheatle pointed out that in the infant, in addition to the tympanic antrum, there are present only a few air cells which are situated in the lateral wall of the antral cavity, and 80 per cent of mastoids are pneumatized, the remaining 20 per cent being dense or acellular [1] Wittmaack has stated that the dense type of mastoid is really a pathologic one and is due to infantile otitis media which interferes with the pneumatization of bone [2] Albrecht, however, disagrees and holds that pneumatization depends on the energy of the invading epithelium and resistance of the surrounding tissue, quite apart from the presence or absence of otitis media [3]

According to Politzer and Kernison, the mastoid antrum is the only pneumatic space that is present in the newborn and is fully developed even before a rudimentary mastoid can be demonstrated [4] The antrum lies above and posterior to the external auditory meatus and the semicircular canals It is lined by epithelium which is continuous with the mucous membrane lining the middle ear and, directly or indirectly, with the cells lining the eustachian tube The mastoid bone at birth is composed of compact, spongy, and osseous substances Minute cells of the antrum evaginate into the bone and grow progressively larger until the outer border of the mastoid is approached Full development of this process may not occur until puberty At birth the cavities are filled with a mucoid material, histologically resembling Wharton's jelly With the onset of respiration, some of this is discharged through the auditory tube, thus the tube, middle ear, and antrum become pneumatized in the order named The continuity of the mucous lining of the middle ear and eustachian tube plays an all-important part in extension of the disease processes Inflammatory reactions of the primary cavities may readily involve all pneumatized portions of the temporal bone, making mastoiditis and occasionally petrositis inexorable complications in otitis media, even in the youngest age group studied Other workers in this field have stated that the extent of pneumatization facilitates the production of mastoiditis

Material

Roentgenologic studies of the mastoid bones of infants up to one year of age were made with a view to determining the earliest age that one can visualize the pneumatization within the mastoid process The greatest difficulty encountered was to prevent movement of the patient During the exposures, this was accomplished by immobilization of the infant with an attendant holding the patient's head The Law's standard oblique lateral position was used in all cases In interpreting the films, care must be taken to distinguish the semicircular canals from the pneumatized mastoid cells, the semicircular canals being very prominent in the skull roentgenogram of the infant However, a full understanding of the anatomic relations of these structures obviates this error (Fig 1)

The first 50 cases in this series were newborn infants and infants under one month of age. In this group we were able to note the beginning of pneumatization of the mastoid bone on the roentgenogram in four cases It was noted that in these infants development was more advanced, and the body weights were greater than the others of the group The remainder of the series were one month to one year of age. Here we noted that pneumatization of the mastoid began to appear at about six months of age, and after seven months we were able to demonstrate cells in the mastoid with greater regularity Here again the physical development rather than the chronologic age was a major factor in determining pneumatization. In the few cases of infants over seven months of age where pneumatization

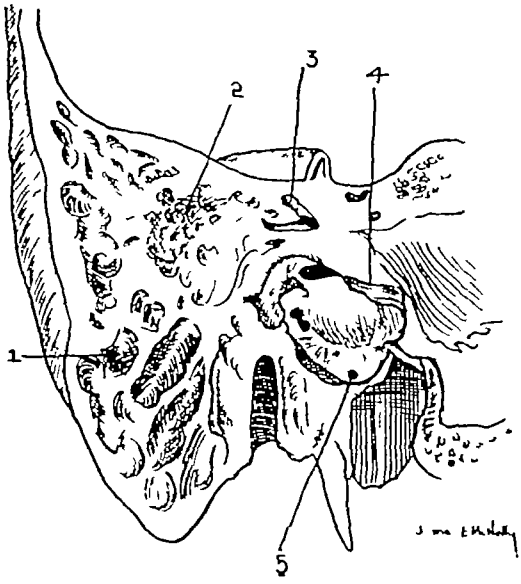


FIG 1 *1*—Mastoid cells, *2*—mastoid antrum, *3*—semicircular canals, *4*—auditory tube, *5*—tympanic cavity

could not be demonstrated, the infants were either prematures at birth or were malnourished Several of the cases had had mastoiditis at a previous admission, their mastoids were of the acellular type Unfortunately, the mastoid bones had not been x-rayed prior to their infection to establish whether the infection was responsible for the acellularity of the mastoid bone, as held by Wittmaack. The development of the mastoid cells was often found to be unequal in both mastoids in the same individual

Anatomic and histologic studies were made in eight cases In this number we were fortunate in having a 15-pound stillbirth which had been delivered by cesarean operation An x-ray of the mastoid bone was taken The mastoid bone was then bisected and decalcified, and stained sections were made It was noted on the roentgenogram that definite outpointings of the antrum extended into the mastoid bone This was corroborated on inspection of the gross anatomic specimen. Histologically, the mucous membrane lining the antrum was seen to be in direct continuity with the epithelium of these alveoli. This, according to Corning, is considered the criterion of actual beginning cell formation in the mastoid bone [5] These findings in this specimen were similar to those we see on the roentgenograms of a six-month infant of about the same weight Postmortem and roentgenologic examination of the older age groups showed physical development still to be an important factor determining the extent of cellular invasion of the mastoid bone, rather than the chronologic age.

Taylor stated that "in children under three years of age a radiograph of the mastoid will yield practically no information, because pneumatization has not taken place to any extent" [6] This view has not been held by Granger [7] We feel that since pneumatization may be demonstrated at any age during infancy, valuable information may be obtained from the roentgenograms With this in mind, a survey of 3,000 protocols of necropsies at this institution was made Acute mastoiditis as either the immediate or contributory cause of death in infants under one year of age was found in 62 cases, or in approximately 2 per cent

An interesting fact observed in this review showed that the incidence of acute mastoiditis showed a marked fall in the period following the introduction of chemotherapy and antibiotics. One can readily understand the rationale for prophylactic chemotherapy instituted by pediatricians in the treatment of upper respiratory infection in infants of this age group, knowing that cellular invasion may occur even in the newborn.

Conclusions

From the preceding observations and review of the available literature, it is our opinion that the formation of mastoid cells is dependent on physical development rather than on the chronologic age of the individual and that the mastoid bone and cells can be visualized at a much earlier age than previously considered possible. Since the presence of pneumatization may be a factor in early dissemination of infections in this region, x-ray examination can be of aid to the clinician The importance of chemotherapeutic prophylaxis in upper respiratory infection in this age group is substantiated

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COMBINED RESECTION OF THE LUNG AND PARIETAL PLEURA IN THE TREATMENT OF PULMONARY SUPPURATION AND EMPYEMA

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THE USE of new chemical and biologic agents has reduced the risk of empyema as a postoperative complication in pulmonary resection to a very low level These results are obtained notwithstanding contamination of the operative field by pathogenic organisms of varying virulence and numbers The thoracic surgeon is thus encouraged to accept the next logical challenge to his expanding field—that of the already infected pleura Resection of a lung containing a bronchus which communicates with the pleural cavity often removes the source of chronic infection, but, at the same time, it creates a new hazard by exposing unprotected areas and eliminating the advantageous mechanism of encapsulation. The rational ideal would be to remove both infected lung and infected pleura at the same time, provided there is a reasonable prospect of escaping infection of residual dead space

The limitations of this procedure would appear to be determined, for the greater part, by the amount of extrapleural dissection possible and necessary for its execution In the resection treatment of pulmonary tuberculosis, particularly following the failure of pneumothorax, thoracoplasty, or both, the extrapleural route is the only feasible one in most cases Loss of blood always occurs, mostly from the diaphragmatic surface Enough experience has been gained, however, to demonstrate that, with adequate replacement by transfusion and the use of suitable hemostatic methods and substances, the entire parietal pleura may be safely excised Cannulation of a vein in both legs is recommended as an extra precaution in the transfusion setup

It would, therefore, appear necessary only to carry this operative technic over to the treatment of combined pleuropulmonary tuberculosis to discover its widest and most effective application Additional encouragement is offered by the good results obtained with the use of streptomycin as an adjunct to the treatment of tuberculosis empyemata and chest wall sinuses

The authors wish to report two cases where this type of operation was successfully used. The first was an encapsulated empyema with bronchopleural fistula complicating a generalized suppurative bronchopneumonia of the right lung The encapsulation was limited to the lower half of the posterior costal gutter, and only a local extrapleural dissection was necessary The second case was one of extensive pulmonary tuberculosis of the left lung complicated by mixed infection empyema, bronchopleural fistula, and empyema necessitatis at the level of the second rib anteriorly Due to this second complication, it was necessary to do a preliminary resection of the eleventh rib for drainage The chest wall abscess emptied into the pleural cavity but a sinus persisted and air could be palpated under the pectoral muscles At the end of seven weeks, final consideration was given to the patient in consultation with Dr E H Robitzek of Sea View Hospital, where the same problem was under consideration at the same time [1 2] Immediate operation was decided upon. The authors believe that the records presented below represent the first reported case in which extrapleural resection was used for the eradication of a nontuberculous empyema and the first reported case in which this method was used for the treatment of a tuberculous empyema complicated by empyema necessitatis The importance of these details will become apparent with the development of the case presentations

Case Reports

Case 1—V M , a white man, age sixty-two, was admitted March 8, 1947 He had a history of pneumonia two years prior to admission, followed by chronic cough and a recurrence of pneumonia two months previously Since that time, cough was present, productive of eight to ten ounces of sputum daily Other factors related to the history were not important On physical examination, he gave the appearance of being chronically ill and coughed frequently The positive physical findings were enlarged lymph nodules in the anterior triangles on both sides of the neck, dullness over the base of the right posterior lung with numerous loud rales and ronchi, an occasional ronchus also being heard in the left base posteriorly X-ray of the chest demonstrated a shading over the lower half of the right lung which had persisted after the pneumonia (Fig 1) There was also a density, extending downward from the right hilus along the mediastinum, which had a rounded upper border about 2 inches wide and fused with the shadow over the lower lung field Urinalysis was normal Blood picture was as follows red blood cells 4 800,000, hemoglobin, 86 per cent, white blood cells 16,600, polymorphonuclears 34 per cent, lymphocytes 64 bands 6 per cent, and eosinophils 2 per cent

Bronchoscopy, performed on March 8, 1947 showed intense inflammatory and edematous in-



FIG 1 Posteroanterior view of chest (Case 1) Note accentuated markings on the right side and roughly oblong density lying against the right cardiac border



FIG 2 Appearance of the chest twelve days after pneumonectomy (Case 1)

filtration of the bronchial mucosa, particularly on the right side, with large amounts of drainage from the lower and middle lobes Lipiodol injection on March 15 demonstrated no bronchiectasis Bronchoscopy was repeated several times without improvement On March 29, a spread of the bronchial inflammation to the upper lobe was noted A biopsy was made which showed bronchial mucosa and submucous glands, with no evidence of malignancy It was decided that pneumonectomy provided the patient's only chance. Operation was carried out on April 14, as follows

With the patient in the face-down position, the usual curved incision was made Short segments of the fifth and seventh ribs posterior to the angle were resected, and the sixth rib was resected completely subperiosteally, the pleura was opened in the bed of the sixth rib, and extensive adhesions over all of the lobes were encountered These were separated by sharp and blunt dissection, and the short and long fissures were exposed On palpation, the middle lobe and the lower part of the upper lobe were found to be nodular and firm, as well as the lower lobe When the division of the adhesions over the pleura had been carried to the posterior costal gutter, a firm plaque on the chest wall was encountered. This was apparently thickened pleura The lower border of this plaque was separated from the pulmonary surface, and grayish pus exuded The opening was increased in size, and the walls were found to be partially ossified This was apparently an old encapsulated empyema, and it was deemed advisable to remove this with the lung The pocket was packed with plain gauze. The dissection was carried to the extrapleural plane, and the empyema sac, including its encapsulation, was separated from the inside of the chest wall until the true pleural cavity was entered on the medial side by the end of the dissecting finger Adhesions over the diaphragm were found to be very dense and bled considerably It was, therefore, decided to begin the dissection of the root and ligate the vessels to control bleeding A number of large inflammatory glands, some of them the size of a hen's egg, were found in this area, and the exposure of the independent structures was difficult The main bronchus was freed and ligated, then amputated, using a short piece of tubing on the posterior wall for imbrication The pulmonary artery was then exposed with considerable difficulty It was ligated in the usual manner, using anchor suture The pulmonary veins were similarly treated The diaphragmatic adhesions were separated by blunt dissection, and the lung was removed The bronchus was closed by a layer of mattress sutures and a layer of end sutures, the latter including a flap of pleura from the mediastinum. The chest was closed in layers without drainage Black silk was used throughout One hundred thousand units of penicillin were instilled into the pleural cavity and 450 cc of air were withdrawn, leaving an end pressure of −12cm water

In the postoperative care, 100,000 units of penicillin were injected into the pleural cavity following aspiration of air and blood on the first two postoperative days, April 15 and 16 A similar amount of penicillin was injected without aspiration on April 20, 22, and 30 and May 11 At the time of the last instillation of penicillin, a specimen of



FIG 3 Posteroanterior view of chest (Case 2) showing complete obliteration of the left hemithorax with fluid level at the first anterior rib

clear, brownish-red fluid was removed and submitted for culture It proved to be sterile In addition, the patient required a bronchoscopy thirty hours postoperatively and digitalization of the heart for a sudden fibrillation which occurred on the fourth postoperative day He was discharged on May 16 in good condition and has remained so up to the present time Figure 2 shows the postoperative appearance of the chest on April 26, 1947

Case 2 —A. M , a white woman, a widow age thirty-eight, was admitted to the hospital on June 27, 1947, complaining of cough and expectoration of large amounts of mucopurulent material. The immediate complaints began about six months previously, with pain in the left chest and loss of weight and strength About one month later, she began to cough and expectorate yellow mucus The cough became worse, and about two weeks before admission she began to expectorate what she thought was "pus" About the same time, she experienced a moderate degree of dyspnea

She stated that fifteen years ago, she was in a "run-down condition" and was told that she had a "spot on her lung" She took "several months' rest" and had been symptom-free until the beginning of the present illness

On physical examination, there was dullness and decreased breath sounds over the entire left chest with an absence of fremitus at the base. The left breast and the chest wall above it were swollen and tender, and there was crepitus and pain on pressure over this area The right lung was clear Heart was normal, blood pressure 112/78 Other physical findings were without significance

An x-ray of the chest showed shifting of the trachea and mediastinum to the left and complete opacity of the left hemithorax with a fluid level in the apex at the level of the first anterior rib (Fig 3) On the right side, there was scarring and calcific deposits

Laboratory findings were as follows Urinalysis, normal, red blood cells 2,680,000, hemoglobin 46 per cent, color index 0 9, white blood cells 18,100, polymorphonuclears 79 per cent, and lymphocytes 21 per cent. Sputum examination showed numerous tubercle bacilli The diagnosis was pulmonary tuberculosis, mixed infection empyema, bronchopleural fistula, and empyema necessitatis on the left side with secondary anemia

Course and Progress —The temperature following admission varied from 103 5 to 101 F The sputum amounted to six to eight ounces daily Culture from the left pleural cavity yielded nonhemolytic streptococcus It was decided, on account of the chest wall abscess, that drainage of the pleural cavity was essential, whatever therapy might be undertaken at a later date Consequently, the patient was prepared for operation by adequate transfusion and the eleventh rib left was resected under local anesthesia on July 8, 1947 The temperature leveled off at normal within two weeks The cough disappeared, and the general clinical condition improved A residuum of the chest wall abscess remained, however, and crepitus could be made out under the palpating finger

On August 26, the patient was considered in good enough condition to undergo a pleuropneumonectomy The following is a description of the operation taken from the hospital records

The patient was prepared preoperatively by local and paravertebral block anesthesia, using a 0 4 per cent novocaine solution In the face-down position, the usual curved incision was made, and the sixth rib was resected subperiosteally The line of cleavage was picked up in the endothoracic fascial plane and was followed in both directions, with difficulty, however, due to the rigidity and thickness of the pleura. In order to obtain sufficient exposure, it was necessary to resect the seventh rib also Dissection was carried out, for the most part, by sharp technic Fusion with other membranes, such as the diaphragmatic pleura and pericardium, was so dense that no line of cleavage could be found. A large segment of pericardium was removed, together with the pleura, exposing the heart on the left side Over the diaphragm, the adhesions were of such multiplicity and so well organized that an opening was made into the abdominal cavity at one point. This was repaired by interrupted sutures of black silk. There was also a relatively great loss of blood over the diaphragmatic surface, and the pleural cavity was entered on several occasions The hilar structures were also exposed with difficulty, but it was possible to treat each anatomic structure individually, the vessels by double ligature and anchor suture and the bronchus by one row of mattress sutures, one row of end sutures, and a fascial flap from the mediastinum. Oozing from the surfaces was controlled by strips of Gelfoam The chest wall abscess communicated with the pleural cavity between the second and third ribs The sinus contained pus and caseous material, which was cleaned out by gauze wipes and curet. The

chest wall was closed in layers, using a chromic catgut number 3 pericostally and interrupted black silk for the muscle fascia and skin The drainage wound at the eleventh rib was excised and the opening packed with gauze The patient left the operating room in good condition, having received 3,000 cc of citrated blood and 2,000 cc of glucose and saline by transfusion Anesthesia, administered by Dr M Swick, was intratracheal (intubation under 30 minims 10 per cent cocaine solution) gas-oxygen and ether

The patient had received 2 Gm. daily of streptomycin beginning on August 14 1947, divided into doses of 250 mg every three hours This was continued postoperatively with the addition of 25,000 units of penicillin The combined dosage of streptomycin-penicillin was maintained until September 15, 1947, when the penicillin was discontinued and the streptomycin cut to 1 Gm daily in four doses which was continued to September 22, 1947 The patient's postoperative course was sufficiently favorable to permit an anterior and posterior thoracoplasty for the removal of the second, third, fourth, and fifth ribs on September 5 and September 12, 1947 The three operations were carried out within a total of seventeen days, and primary union was obtained in both thoracoplasty wounds The patient was discharged on October 16, 1947, in good physical condition, with normal temperature and no cough but with a persistent sinus at the level of the eleventh rib This was thought to be due to residual infection from the chest wall abscess, but it was considered worth while to see whether it would not close spontaneously, given sufficient time Total dosage of streptomycin was 71 Gm.

Second Admission —During five weeks' observation, gradual rise of the diaphragm obstructed drainage The patient was readmitted on November 19, 1947 On November 20, the eighth rib was removed and a drainage opening established above the dome of the diaphragm. On December 15, the anterior thoracoplasty wound was reopened The sinus tract was picked up and followed for a distance of about 1½ inches into the neck below the first rib and the subclavian artery After removal of the anterior part of the first rib and the costal cartilage, the sinus was cleaned by curettage, and the wound was packed with ½-inch gauze.

On December 21, 1947, the patient was placed on streptomycin, 2 Gm. daily, in divided doses every three hours This was continued until January 20, 1948 The apical sinus was completely closed by January 17, 1948, and did not reopen On January 20, streptomycin was reduced to 1 Gm daily in divided doses (every three hours) and continued to January 30, 1948 The patient was discharged on February 7, 1948, with a persistent tract between the upper and lower thoracoplasty wounds Total dosage of streptomycin administered during this admission was 50 Gm

Third Admission —Although the patient continued to gain weight and remain otherwise symptom-free, the pleural dead space failed to close, and the patient was readmitted to the hospital for a muscle flap closure on April 9, 1948 On April 10, the ninth and tenth ribs were removed subperiosteally, taking care to conserve the blood supply of the intercostal muscle A sufficient length of this muscle was freed to fill the pleural dead space and was drawn into the tract from below The transplant "took," but at the end of one week the ligamentous portions showed signs of liquefaction at the distal end The patient was discharged on May 8, 1948, at which time the lower wound was completely healed, but serous drainage from the upper wound was still present During this admission, no streptomycin was given The wound was kept clean by dusting in penicillin and sulfathiazole powder An x-ray of the chest taken on July 30, 1948, shows the residual sinus filled with lipiodol (Fig 4)



Fig 4 Posteroanterior view of chest (Case 2) eleven months after pleuropneumonectomy, showing the results of complete thoracoplasty on the left. Patient was clinically well at time of this examination.

The wound is now completely healed and the patient symptom-free *

Summary and Conclusions

Two cases are reported in which combined resection of the lung and parietal pleura was successfully used for the treatment of pleuropulmonary disease with fistulous communication.

Further experience is necessary before final judgment can be given, but the method is recommended, particularly when the disease is of tuberculous origin

In Case 2, the outcome of the operation was fouled by residual infection from a chest wall abscess This single experience suggests that in the absence of this complication resection should be done without drainage of the pleura

When it is present, drainage is necessary, and the abscess should be cleaned up as a part of the preoperative preparation

The experience also indicates that, if muscle transplant is necessary, a long strip of intercostal muscle is less suitable for the process than other skeletal muscle due to the presence of a relatively large portion of ligamentous fibrous elements

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* Authors note Since this paper was sumitted for publication a sinus has reopened in case 2 below the left clavicle over the site of the previous tuberculous abscess of the chest wall and tubercle bacilli have been recovered from scrapings. The patient however is still able to perform her normal duties

COMPLICATIONS OF PERITONEAL BUTTON OPERATION FOR ASCITES

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THE problem of ascites secondary to portal hypertension has vexed the medical profession for many years Many surgical approaches have been devised since the last of the nineteenth century in an attempt to relieve the ascitic patient

Drummond and Morison reported the first surgical attempt in 1896 [1] Talma in 1898 reported on his operation, now known as the Talma-Morison omentopexy [2] Repeated follow-up studies of this procedure have shown it to have a high operative mortality without improving the prognosis

Ferguson reported a case in which a right nephrectomy was done and the renal pelvis was anastomosed to the peritoneum [3] This provided an outlet for the ascitic fluid via the bladder However, while obviating repeated paracentesis, this method did not prevent the loss of proteins, fluid, and electrolytes

Whipple devised the shunting operation, lienorenal anastomosis, in an effort to overcome the portal hypertension [4] Blakemore and Lord similarly devised the portacaval anastomosis [5] The results of both of these procedures are too recent to be evaluated The main objection to them, in our minds, is that they are major operative procedures on poor risk patients

Recently the peritoneal button operation, a relatively innocuous procedure for surgical correction of ascites, has come into vogue The origin of this procedure is obscure However, Lichtman states that Boccaro in 1922 was surgically inserting a peritoneal button to drain the ascitic fluid into the subcutaneous tissues [6] Tannahill in 1930 reported one case [7] Crosby and Cooney in 1946 reported six cases [8]

The rationale underlying this procedure is the creation of a permanent fistulous connection between the peritoneal cavity and the subcutaneous tissues of the anterior abdominal wall by means of a button The button allows the ascitic fluid to pass to the subcutaneous tissues from whence it is absorbed Theoretically this procedure answers the major objections to the previously described surgical maneuvers, namely it is simple and rapidly performed, and it prevents the loss of protein, fluids, and electrolytes from the ascitic fluid by returning them to the general circulation

Crosby and Cooney's report of their modification of this simple operative procedure for the relief of ascites has caused an increased interest in the peritoneal button operation Welch has reported on one of the causes of failure of this procedure [9] He found that the subcutaneous pocket developed a firm fibrous wall lined by mesothelium Welch concluded that, because of the small area of surface exposed and the fibrous character of the wall, little absorption could take place from such a cavity

It is the purpose of this paper to present another complication of the peritoneal button operation. A survey of the literature since

Crosby and Cooney's article has failed to reveal any reports of intestinal obstruction secondary to herniation and incarceration of bowel into the subcutaneous cystic space

Case Report

N M, a fifty-year-old Puerto Rican woman, was admitted to the surgical service complaining of painless abdominal swelling for the past eight months

Present history began in 1936 with an uneventful cholecystectomy for cholecystitis and cholelithiasis From 1936 to 1947 patient had three hospital admissions for biliary tract disease, including one for a common duct exploration, the results of which were negative In 1946 a diagnosis of biliary cirrhosis was established, but no ascites were noted One year later, the sudden onset of ascites was noted A diagnosis of portal vein thrombosis was made The patient had several further hospitalizations for study and paracentesis In October, 1947, a peritoneal button was inserted in the right lower quadrant in an attempt to relieve her ascites She was admitted to Montefiore Hospital for further observation on November 14, 1947

Pertinent physical findings on admission were a muddy bronze color of the skin, blood pressure 130/70, a tremendously distended abdomen showing numerous operative scars, and a large hernia-like mass in the right lower quadrant about 7 inches in diameter, cystic to palpation, collapsible by pressure, and filling in waves when released A fluid wave and shifting dullness were present No abdominal organs or masses were palpable because of the ascites.

Aspiration of the right lower quadrant mass revealed straw-colored ascitic fluid, and it was felt that this was a nonvascular, nonabsorbing hyalinized pouch connecting with the peritoneal cavity through the patent button

Results from the laboratory examinations were as follows urine negative except for a trace of albumin, hemoglobin 82 per cent, 3,960,000 red blood cells, urea nitrogen 9 mg per cent, cephalin flocculation 4 plus, thymol turbidity 7 units The total protein was 4 4 mg per cent, albumin 2 mg per cent, and globulin 2 4 mg per cent

The patient had several paracenteses done for relief of ascites On December 12, 1947, another peritoneal button was inserted in the left lower quadrant through a 3-inch incision, and the right lower quadrant subcutaneous pouch was unroofed and biopsied. Histologic examinations of the wall showed fibrosis with chronic inflammation and was lined with mesothelium as described by Welch (Fig 1) Following this, the right lower quadrant pouch again filled and ascites reaccumulated. It was felt that because of the low plasma protein she might not be absorbing fluid from her subcutaneous tissues Accordingly, the patient was given four times concentrated human plasma equivalent to 5,500 cc. of plasma over an eighteen-day period, plus salt restriction and a high protein, high caloric diet. She was also given vitamin supplements and mercurials Her total proteins rose to 6.2 mg per cent, albumin 3 1 mg per cent, and globulin 3 1 mg per cent, and the ascites remained stationary



FIG 1 Section of wall through subcutaneous pouch showing mesothelial lining, fibrosis, and chronic inflammation Biopsy taken two months after insertion of button and formation of nonfunctioning subcutaneous pouch (93×)

On January 19, 1948, a paracentesis was performed On January 20, the patient began to complain of abdominal pain, nausea, vomiting, and obstipation Her temperature rose to 101 F, and her abdomen became markedly distended Physical examination on January 21 revealed a markedly distended abdomen with generalized tenderness and rebound. The right lower quadrant pouch could not be reduced as heretofore No audible peristalsis was heard on auscultation. Complete blood count and urinalysis were not significantly abnormal A flat plate of the abdomen showed markedly dilated loops of small bowel but no fluid levels This was interpreted as a paralytic ileus The right lower quadrant pouch was tapped and several cubic centimeters of fluid removed for smear and culture. A diagnosis of peritonitis secondary to paracentesis was made Patient was given penicillin and streptomycin, and a Miller-Abbot tube was passed Three days after onset, the right lower quadrant pouch was again tapped, this time until no further fluid (1,200 cc) could be obtained Following this procedure, a mass could

be felt in the subcutaneous pouch suggesting coils of bowel

By this time the patient had become comatose and was explored without anesthesia A loop of bowel was found to have herniated through the peritoneal opening in the right lower quadrant displacing the Cooney button, which was lying free in the subcutaneous pouch The bowel, which was still viable, was replaced and the hernia repaired, obliterating the space. Another Cooney button was inserted in the left lower quadrant via a stab wound incision.

Following surgery, the patient gradually improved on supportive therapy, regaining consciousness on the fourth postoperative day She was ambulated without further event

Discussion

The failure of the peritoneal button to function in this case has been fully in accord with Welch's observation The wall of the subcutaneous pouch became fibrotic and lined with mesothelium Biopsy of the pouch and histologic sections of the wall showed this to be the case

The fact that this case of intestinal obstruction was missed for three days can only be ascribed to our failure to drain the subcutaneous pouch of ascitic fluid completely on the day that the patient began to complain The x-ray picture of intestinal distension, plus the lack of any audible peristalsis, led us to believe that we were dealing with a paralytic ileus on an infectious basis following paracentesis There is no doubt that the reaccumulation of fluid caused tension on the anterior abdominal wall This tension coupled with a persistent hypoproteinemia was sufficient to cause disruption of the abdominal wound with herniation of the Cooney button into the subcutaneous pouch, along with loops of bowel.

We have had two other cases of cirrhosis with ascites in which peritoneal buttons have been inserted via stab wound incisions Neither of these cases has developed subcutaneous pouches in a six-month follow-up, and both have been definitely benefited We feel that subcutaneous pouch formation may be avoided by use of a stab wound incision so that tissue planes are not opened up to permit formation of a pouch

Despite the failures that have been reported to date we feel that a further trial of this procedure is warranted

Summary

1 A review of surgical procedures for the relief of ascites secondary to portal hypertension has been presented

2 One reason for failure of the peritoneal button operation to work is the formation of a fibrous-walled, mesothelial-lined subcutaneous pouch from which absorption is minimal

3 A hitherto unreported complication of the peritoneal button procedure is presented This is subcutaneous wound disruption with the button and loops of bowel becoming incarcerated in the subcutaneous pouch The case history of this complication is presented

4. It is suggested that the use of a stab wound incision for the insertion of the peritoneal button may lower the incidence of subcutaneous pouch formation

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LEADERS TELL YOUNG DOCTORS THRILL OF COUNTRY PRACTICE

A unique effort to turn young doctors of 1949 from the big city to the small town was planned by the Illinois State Medical Society Seventy-five young interns and residents, just about ready to hang out their shingles, were invited to the Hotel LaSalle, Chicago, as dinner guests of the Society on April 26, to hear the story of the small town's advantages. Three veteran small town doctors explained to them how to set up an office, to handle patients in home and office visits, and to meet other problems of practice A young doctor who recently set up practice in a country town told of his problems and how he solved them with the help of the neighbors. A small town banker told them how to find and finance their equipment, offices, homes, and cars A description of 40 Illinois rural areas which are in need of additional physicians was given them, with the names and addresses of key persons to whom they might turn for information, advice, and help A second list of 30 Illinois country doctors who want to retire soon and are looking for youngsters to take their places was also provided.

The Illinois State Medical Society, among other efforts to increase the number of physicians in rural areas, a year ago established a $100,000 joint student loan fund in collaboration with the Illinois Agricultural Association. Funds are loaned from it to students to pay for their medical education

HABITUS IN TUBERCULOSIS

JOSEPH W GOLDZIEHER, M D , SYDNEY BASSIN, M D , F C C P , and SARA T GOLDZIEHER, M A , New York City

(From the Department of Medicine, Municipal Sanatorium of the New York City Department of Hospitals, Otisville)

BELIEF in the existence of a "TB type" (habitus phthisicus) is firmly entrenched in the minds of laymen and over the years has gained wide tacit acceptance in the medical profession generally In sharp contrast is the consensus of opinion among phthisiologists, who deny the existence of any such constitutional type At a time when intensive campaigns to control tuberculosis by mass survey and to educate the public are being waged, such beliefs assume importance, for they affect the reactions of the laity and the index of suspicion among physicians

Descriptions of the so-called habitus phthisicus (vertical, "hyposthenic" body build, small globular heart, etc) show a very close resemblance to, and are probably identical with, those of individuals said to have "constitutionally" poor adrenal cortical reserve, a condition sometimes designated as chronic benign hypoadrenia [1] In addition to the hyposthenic habitus and globular heart, mild hypotension, lymphocytosis, and biochemical changes characteristic of poor adrenal function are observed If the "habitus phthisicus" were identical with a constitutionally poor adrenocortical reserve resulting in lowered resistance and immunity, then it would indeed acquire a sound theoretic foundation as well as clinical significance It was our purpose in this study to investigate the frequency of the stigmata of "habitus phthisicus" and to determine whether or not patients with these stigmata were in any way different from other tuberculous patients, with particular reference to blood pressure and lymphocyte picture

Materials and Methods

The records of 250 patients were selected at random from the files of the Municipal Sanatorium of the New York City Department of Hospitals, excluding only those who had an acquired distortion of the thoracic cage (i e , thoracoplasty) Sixty-one and one-half per cent of the patients were men, 38 5 per cent were women Seventy-eight per cent were of the white race, 20 2 per cent were Negroes, 1 2 per cent were Chinese, and 0 6 per cent were Indians The age distribution was as follows 10 to 19 years—22 2 per cent, 20 to 29 years—36 7 per cent, 30 to 39 years—27 0 per cent, 40 to 49 years—10 9 per cent, and 50 to 59 years—3 2 per cent The patients of the Sanatorium are particularly suitable for this problem, for they are almost all early cases of tuberculosis in which cachexia (and cardiac atrophy) is less apt to confuse the observations The admission blood pressure, white blood cell count, lymphocyte percentage, and posteroanterior chest film in deep inspiration were used for study The cardiothoracic ratio was measured, and the cardiac shadow was evaluated as to size (small or not) and shape (vertical or not) Lastly, the chest film was studied for the presence of extrinsic factors which could cause mediastinal distortion, such as retraction of the hila, congenital thoracic deformities (e g , pes cavus), emphysema, pressure due to pneumothorax or effusion, etc The pulmonary disease process was studied to determine whether or not the character and severity of the disease could account for atrophy and decrease in cardiac size It was then possible to judge whether or not these extrinsic factors could account wholly, partially, or not at all for alterations in the cardiac contour

Results

Cardiothoracic Ratio —The cardiothoracic ratios are plotted as a frequency distribution curve in Fig 1 Although it was impossible to obtain a nontuberculous sample of the same

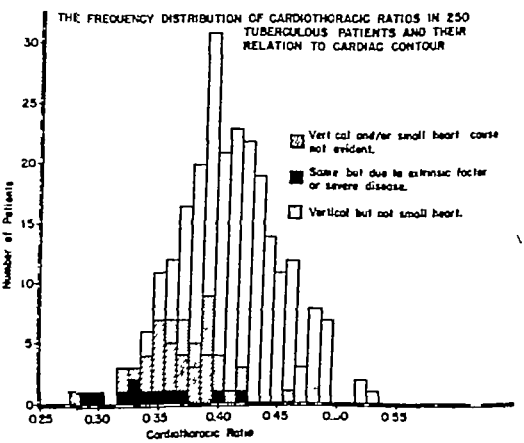


FIG 1

population for comparison, the shape of the curve itself is quite significant It will be observed that the shape resembles very closely the Gaussian curve of a random distribution, certainly there is no disproportionate number of patients with small cardiothoracic ratios In fact, the curve shows a preponderance of cardiothoracic ratios greater than the mean of the group It may be concluded, therefore, that there was no unexpectedly large proportion of patients with small hearts (by measurement) or hyposthenic habitus, as indicated by the cardiothoracic ratio

Cardiac Contour —Three cases (1 2 per cent) were observed in which the heart appeared small but not vertical Eighteen cases (7.2 per cent) showed a heart which was vertical, but not small Thirty-two cases (12 8 per cent) showed a heart which was both small and vertical

No extrinsic factors were observed which could account for purely small hearts

In purely vertical hearts, extrinsic factors accounted completely for the cardiac changes in 13 cases, and partially in one case, leaving only four cases of the 13 in which the heart was vertical for no evident reason It would appear that the cardiac abnormalities in this group are largely a matter of distortion, and cannot be ascribed to "constitutional" factors

Of the 32 hearts which appeared both small and vertical, only 17 were free of any pulmonary factor which could account for the changes In five instances, the character and severity of tuberculosis were apparently sufficient to explain the microcardia observed, other extrinsic factors were completely responsible for the cardiac changes in six cases and partially responsible in four cases

Thus, thoracic pathology accounted wholly for the "constitutional" microcardia in 65 per cent of the entire "abnormal" group and played at least a partial role in an additional 30 per cent From these figures it becomes increasingly apparent that "constitutional" (i e , unexplained) microcardia is of relatively minor significance

Figure 1 also illustrates the relationship of cardiothoracic ratio to changes in cardiac contour It is evident that a small heart and a low cardiothoracic ratio are not equivalent It was for this reason that statistical comparisons were based on groups differing in cardiac contour rather than on groups representing any selected range of CT ratios On the former basis, significant differences between the groups were far more likely to appear with statistical treatment of the data

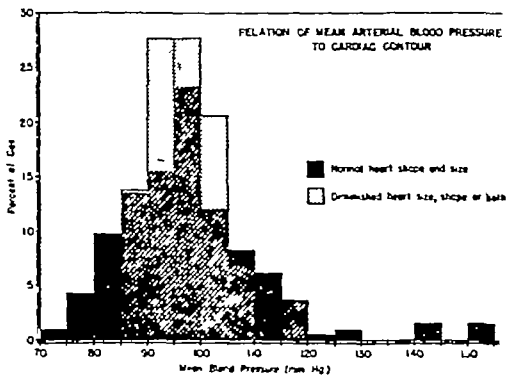


FIG 2.

Blood Pressure —For the purposes of mathematical simplicity, the mean blood pressure (average of the systolic and diastolic pressures) was used While this abbreviation is not always permissible (e g , in the study of hypertensive states), there seems to be no objection to the method when hypotension is the factor under consideration Figure 2 illustrates the mean arterial pressures of the two groups those with normal cardiac contour and those with vertical and/or small hearts not due to manifest extrinsic factors The mean blood pressures are almost identical, and there is no statistically significant difference between the two groups, the observed differences in the curves are well within the limits of variation due to sampling Evidently, then, this second criterion also fails to show the presence of a constitutionally stigmatized group

Lymphocytes —Studies of both the relative (i e , percentage) and the absolute counts were carried out, because it has been shown that the two methods do not always yield identical results [2] The data obtained are presented in Table 1

TABLE I —RESULTS OF RELATIVE AND ABSOLUTE LYMPHOCYTE COUNTS

	Lymphocyte Percentage		Lymphocyte Count (in thousands)	
	Mean	Standard Error	Mean	Standard Error
Control group (normal cardiac contour)	29 1	9 6	2 41	0 82
Vertical and/or small hearts*	33 9	12 35	2 62	1 02
All small hearts*	34 6	12 6	2 58	1 02

* Excluding those due to intrathoracic pathology

Comparison of the control group with each of the other two groups by the determination of "T" yielded values (both for percentage and absolute counts) which were less than 0 2 in

every case * This is an entirely insignificant figure, for a value of T = 2 5 (representing odds of 80 1 against chance occurrence) is usually accepted as the minimum for statistical significance It appears that there is actually no difference in the lymphocyte picture of the two groups, even though mere inspection of the percentage suggests what is often described as a "tendency" in the literature Statistical analysis, however, shows that this "tendency" is due to the variability of the samples and does not represent any real difference One must conclude, therefore, that even this third criterion speaks against any constitutional differences between the two groups

Discussion

As long as those who believe in a constitutional type of tuberculous patient continue to have relatively vague and indefinite criteria which are unsuitable for statistical or even objective evaluation, it will remain impossible to arrive at a definitive answer We have been forced to select as criteria for our study those features which are mentioned most often, which have the greatest potential significance, and which are amenable to mathematical analysis It is always possible that a selection of different criteria might yield other results

The data presented above indicate strongly that there is no discernible "TB type" in the population we have studied It must be emphasized that this does *not* imply the absence of individuals with an increased susceptibility to tuberculous infection There is ample clinical and experimental evidence to show that such a state can and does exist and can even be produced experimentally, e g , by adrenalectomy [3] What these data do show is that a "constitutionally" susceptible type of patient, far from being an outstanding feature, forms an insignificant and statistically undetectable percentage of the patients seen in a sanatorium for early tuberculosis

It seems that the concept of a "habitus phthisicus" was formed by the impressionistic methods of earlier clinicians and pathologists who saw a relatively large proportion of far-advanced or terminal cases and mistook their uniformly cachectic appearance for a constitutional stigma

In certain large groups of the population which are subjected to mass x-ray survey, the index of suspicion of the individual physician plays no part in case finding There are, however, other large groups in which x-ray examination of the chest is undertaken only when some particular observation arouses the suspicion of the examiner All too often, such a suspicion is allayed by traditional concepts of the habitus of a so-called TB type, with the result that a "silent" lesion in an apparently robust patient may go undetected It is, therefore, vitally important to emphasize the insignificance of habitus in tuberculosis

Summary

1 The blood pressure, lymphocyte percentage, lymphocyte count, and chest films of 250 tuberculous patients, selected at random, were studied for objective evidence of a "habitus phthisicus "

2 No distinctive habitus was apparent from study of the chest films and cardiothoracic ratio

3 In 53 cases, the heart appeared small, vertical, or both In 29 (55 per cent) of these, intrathoracic factors accounted (partially or entirely) for the cardiac changes Comparison of the remaining 24 patients with the group showing normal hearts failed to reveal any statistically significant difference as to blood pressure, lymphocyte count, or lymphocyte percentage

4 These studies indicate a noteworthy absence of any particular "constitutional type" among tuberculous patients

5 The danger of suspecting tuberculosis only in those patients who are of the so-called TB type is emphasized

We wish to acknowledge our indebtedness to Dr Samuel Topperman, whose unstinting cooperation made this study possible

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* $$T = \frac{M_1 - M_2}{\sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_1^2}{N_2}}}$$

where M is mean of sample N is size of sample and σ is standard deviation.

THE 98TH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION WILL BE HELD JUNE 6 TO 10, 1949, IN ATLANTIC CITY, NEW JERSEY

RELATIVE VALUE OF THE STANDARD AND UNIPOLAR LEADS IN THE DIAGNOSIS OF MYOCARDIAL DAMAGE

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(From the Cardiovascular Research Unit, Beth Israel Hospital)

THE routine electrocardiogram in our cardiac clinic consists of standard limb leads I, II, and III and precordial leads CF_1 and CF_4 Whenever needed, precordial leads CF_1 through CF_6 are taken. It has been our impression that this had proved an adequate system for the diagnosis of myocardial damage

Recently, however, unipolar lead electrocardiography has been promulgated as a system of electrocardiographic interpretation which should substitute for the present bipolar system It has been stated, "If unipolar limb leads and multiple precordial leads are available, standard leads are superfluous since they contribute no information that cannot be derived more precisely from the unipolar limb leads, studied in conjunction with multiple precordial leads "[1] Experience with the bipolar system has accumulated for more than thirty years, and definite patterns of abnormality in the electrocardiogram have become well known to many physicians, whether specialists in this field or no

It seemed reasonable, therefore, that before subjecting all physicians to the task of learning unipolar lead electrocardiography that the usefulness of the standard leads in diagnosing myocardial changes be compared with that of the unipolar leads

Method

Eighty-five patients were selected at random from the active attendance at the cardiac clinic Standard limb leads I, II, and III, precordial leads CF_1 and CF_4, unipolar extremity leads aVr, aVl, and aVf, and unipolar precordial leads V_1 through V_6 were taken on each patient

In the analysis of the data, leads I, II, III, CF_1, and CF_4 were examined separately from the unipolar extremity leads aVr, aVl, aVf with precordial leads V_1 and V_4 and analyzed according to presence or absence of myocardial damage Further, the unipolar precordial leads V_1 through V_6 were compared with unipolar precordial leads V_1 and V_4 with respect to the possible additional information that might be obtained by taking the four extra precordial leads

The cardiac diagnoses on these 85 patients were as follows arteriosclerosis, 37, hypertension, three, arteriosclerosis and hypertension, 24, rheumatism, 14, rheumatism and hypertension, one, syphilis, one, arteriosclerosis and syphilis, one, congenital, one, possible heart disease, two, and unknown, one

Results

When standard leads I, II, III, CF_1, and CF_4 are examined, 36 of the 85 electrocardiograms (42 per cent) are abnormal This method of examination we shall call method A. When unipolar limb leads aVr, aVl, and aVf with V_1 and V_4 are examined, 39 of the 85 cases, or 46 per cent, are abnormal This we shall call method B In no instances were electrocardiograms, interpreted as normal by method B, abnormal by method A Six per cent of electrocardiograms normal by method A became abnormal by method B In 13 of 13 cases (100 per cent) in which method A established the location of a myocardial infarct, the same information could be obtained by method B However, location of myocardial infarction by method B yielded the same information in only ten of 13 cases (76 per cent) in which method A was used In no instance could more information be gotten from the combination of methods A and B than from either alone

The reasons for the difference in the percentages of abnormalities by methods A and B lie solely in the ability of unipolar extremity lead aVl to indicate high anterolateral wall infarction when all other leads, bipolar and unipolar, are normal This will be discussed in detail later

When unipolar precordial leads V_1 to V_6 are compared with the information from unipolar precordial leads V_1 and V_4, it is found that in 22 instances the six unipolar leads added further information In 14 cases, there was lateral wall damage as shown by abnormalities in V_5 and V_6, in four instances, there was septal wall damage as shown by abnormalities in V_2 and V_3, and in four instances there was septal and lateral wall damage However, in only three instances, one of septal involvement and two of lateral wall involvement, did these additional leads give the only hint of myocardial damage in the face of normal standard limb, unipolar limb, and precordial leads V_1, V_4, CF_1, and CF_4

Discussion

Value of the aVr in Myocardial Damage—An upright T wave in aVr is always indicative of myocardial damage In our series this was found

every case * This is an entirely insignificant figure, for a value of T = 2 5 (representing odds of 80 1 against chance occurrence) is usually accepted as the minimum for statistical significance It appears that there is actually no difference in the lymphocyte picture of the two groups, even though mere inspection of the percentage suggests what is often described as a "tendency" in the literature Statistical analysis, however, shows that this "tendency" is due to the variability of the samples and does not represent any real difference One must conclude, therefore, that even this third criterion speaks against any constitutional differences between the two groups

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probably a matter of a sufficient number of precordial leads rather than whether they are unipolar or CF The value of precordial leads in the diagnosis of septal and lateral wall infarction is being stressed more and more [6]

An analysis of the data in this preliminary series of cases with reference to the comparison of the usefulness of the unipolar with the bipolar system reveals that a routine diagnosis of myocardial damage could be made by either system, excepting for the occurrence of high anterolateral wall infarction

Summary and Conclusions

1 In a series of 85 patients with heart disease, standard limb leads I, II, III and precordial leads CF_1 and CF_4 were compared with unipolar extremity leads aVr, aVl, and aVf and unipolar precordial leads V_1 and V_4 as to the presence of myocardial damage

2 Unipolar precordial leads V_1 and V_4 were compared with unipolar precordial leads V_1 through V_6 to estimate what further information could be obtained from multiple precordial leads

Six precordial leads give more information as to the presence of septal and lateral wall infarctions than do precordial leads V_1 and V_4 alone

3 The bipolar system and the unipolar system give the same information as to the presence or absence of myocardial damage except in high anterolateral wall infarction in which instance aVl may give the only clue to the diagnosis

120 Central Park South

Grateful acknowledgment is due Miss Renée V Friedman, for her technical assistance

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FREE MEDICAL TREATMENT FOR FOREIGN VISITORS

An extraordinary provision of the National Health Service extends free treatment to foreigners visiting England A leaflet given to visitors arriving at British ports reads "The National Health Service will provide you with all medical, dental, and nursing care Everyone—including visitors to this country, whether of British nationality or not—can use all or any complete part of it There are no charges except for a few special items And no insurance qualifications are necessary" It is stated in the press that news of this British service has got around France and other countries Free National Health Service, dentures, spectacles, and even operations may be luring cross-Channel trippers to Britain. But the insanity of producing this last result seems to have dawned on our socialist rulers The Secretary of the British Medical Association reports that news has reached him, indirectly and not officially, that the Ministry has changed its view on the treatment of visitors from overseas It has now made a rule that the benefits of the National Health Service do not extend to overseas visitors, whether foreign nationals or citizens of the Commonwealth or Colonies, if those visitors come to the country for the specific purpose of using the service If, on the other hand, they should fall ill whilst here on a visit, they are entitled to use the National Health Service But the difficulty arises to determine whether the visitor came to the country for the purpose of obtaining medical treatment or not The *British Medical Journal* raises a legal point Either the Act does or does not entitle foreigners to use the National Health Service If it does, then a Government Department cannot make rules denying them the service If, on the other hand, the Act does not entitle foreigners to use the service, then the law is being broken by offering the service to any foreigner —*J.A.M.A., April 16, 1949*

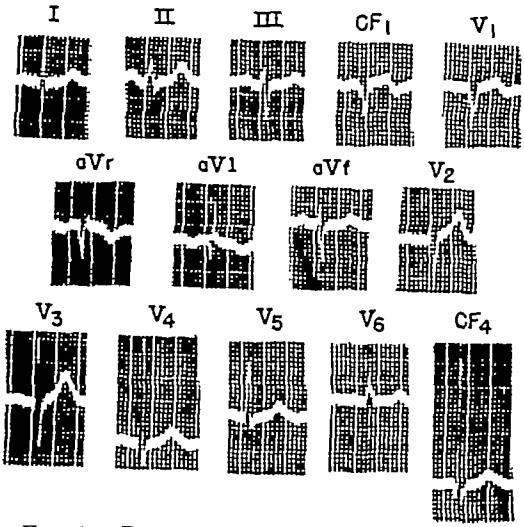


FIG 1 Diagnosis arteriosclerosis, enlarged heart dilated aorta, regular sinus rhythm, IIIc ECG showing normal standard and unipolar extremity and precordial leads excepting for aVl which shows a significant Q wave

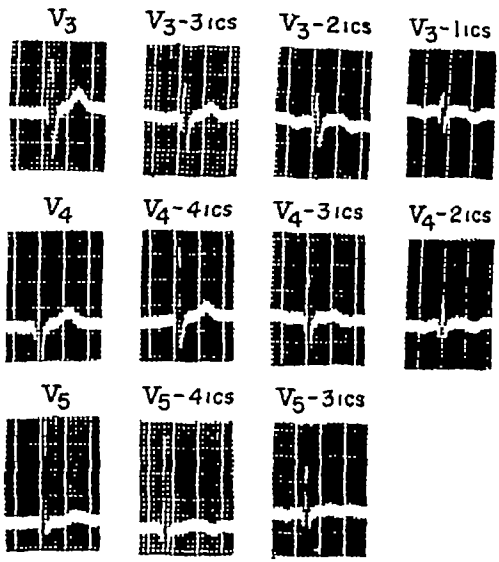


FIG 2 Same case as Fig 1 Unipolar precordial ECG taken at the usual location of V_3, V_4, and V_5 and at intercostal spaces above this Note the increase of the depth of the Q wave, the decrease in the height of the R wave, and the change in the direction of the T wave in V_3 This is taken as evidence of myocardial damage

16 times alone, twice in combination with a significant Q in aVl, and five times with a significant Q in aVf However, in all instances in which an upright T was present in aVr, the standard limb leads showed abnormalities indicative of myocardial damage

Value of the aVl in Myocardial Damage— The depth of the Q wave in the normal aVl varies between 0 5 and 3 0 mm and never exceeds 23 per cent of the height of the following R wave [2] A Q is normally present within these variations when the heart is in the horizontal position In three instances in our series, an abnormal Q wave in the aVl was the only abnormal finding in any of the standard limb or six precordial leads Since the unipolar extremity lead from the left arm faces the lateral wall of the left ventricle while the precordial leads do not face this surface, this abnormal Q wave in the aVl may be the only clue to high lateral myocardial infarction [3 4]

As suggested by Rosenbaum, "The chief indication for additional leads from the upper levels of the left thorax is the presence of changes suggestive of infarction in lead V_1 without corresponding changes in the standard leads from the left side of the precordium" [4] In three patients in this series in which aVl alone was abnormal, unipolar precordial leads were taken in the higher intercostal spaces at the location of V_3, V_4, and V_5 (Figs 1 and 2) The electrocardiogram taken at these upper levels of the left anterior chest wall revealed an increase in the depth of the Q wave, a decrease in the height of the R wave, and the presence of a diphasic or inverted T wave, all indicative of myocardial damage (Fig 2)

This would tend to eliminate the possibility, in this case as in the other two cases, that this unusual electrocardiographic pattern is due to rotation of the heart or some other change in the spatial relationship of the surface to the standard electrocardiographic leads [3]

Value of the aVf in Myocardial Damage— The unipolar lead aVf has, in the opinion of most students of this subject, been of the greatest value in distinguishing positional from structural changes in the heart [5] The significance of the presence of Q waves in lead III with regard to myocardial damage can be readily substantiated or denied by the presence or absence of a significant Q wave in aVf in myocardial damage The Q wave in aVf must be 0 04 second or more in width The Q must be 25 per cent or more of the height of the amplitude of the succeeding R waves In nine instances in our series significant Q waves were present in the aVf lead In every instance the diagnosis of posterior wall infarction could have been made in the standard leads

Value of the Precordial Leads in Myocardial Damage—In 22 instances in this series precordial leads CF_1 and CF_4 were inadequate to show damage present in the septum or in the section of the lateral wall covered by the precordial leads It is

probably a matter of a sufficient number of precordial leads rather than whether they are unipolar or CF The value of precordial leads in the diagnosis of septal and lateral wall infarction is being stressed more and more [6 7]

An analysis of the data in this preliminary series of cases with reference to the comparison of the usefulness of the unipolar with the bipolar system reveals that a routine diagnosis of myocardial damage could be made by either system, excepting for the occurrence of high anterolateral wall infarction

Summary and Conclusions

1 In a series of 85 patients with heart disease, standard limb leads I, II, III and precordial leads CF_1 and CF_4 were compared with unipolar extremity leads aVr, aVl, and aVf and unipolar precordial leads V_1 and V_4 as to the presence of myocardial damage

2 Unipolar precordial leads V_1 and V_4 were compared with unipolar precordial leads V_1 through V_6 to estimate what further information could be obtained from multiple precordial leads

Six precordial leads give more information as to the presence of septal and lateral wall infarctions than do precordial leads V_1 and V_4 alone

3 The bipolar system and the unipolar system give the same information as to the presence or absence of myocardial damage except in high anterolateral wall infarction in which instance aVl may give the only clue to the diagnosis

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Grateful acknowledgment is due Miss Renée V Friedman for her technical assistance

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FREE MEDICAL TREATMENT FOR FOREIGN VISITORS

An extraordinary provision of the National Health Service extends free treatment to foreigners visiting England A leaflet given to visitors arriving at British ports reads "The National Health Service will provide you with all medical, dental, and nursing care Everyone—including visitors to this country, whether of British nationality or not—can use all or any complete part of it There are no charges except for a few special items And no insurance qualifications are necessary" It is stated in the press that news of this British service has got around France and other countries Free National Health Service, dentures, spectacles, and even operations may be luring cross-Channel trippers to Britain. But the insanity of producing this last result seems to have dawned on our socialist rulers The Secretary of the British Medical Association reports that news has reached him, indirectly and not officially, that the Ministry has changed its view on the treatment of visitors from overseas It has now made a rule that the benefits of the National Health Service do not extend to overseas visitors, whether foreign nationals or citizens of the Commonwealth or Colonies, if those visitors come to the country for the specific purpose of using the service If, on the other hand, they should fall ill whilst here on a visit, they are entitled to use the National Health Service But the difficulty arises to determine whether the visitor came to the country for the purpose of obtaining medical treatment or not The *British Medical Journal* raises a legal point Either the Act does or does not entitle foreigners to use the National Health Service If it does, then a Government Department cannot make rules denying them the service If, on the other hand, the Act does not entitle foreigners to use the service, then the law is being broken by offering the service to any foreigner —*J A M A , April 16, 1949*

PROTAMINE EDEMA IN DIABETES MELLITUS

Preliminary Report

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IT IS my intent to present some clinical observations on a number of diabetics who employed protamine zinc insulin exclusively over variable periods of time In many of these patients symptoms were recorded that simulated renal disease When protamine zinc insulin was withdrawn and regular or crystalline insulin substituted, the symptoms disappeared This reversibility led us to compare these observations to the syndrome of glomerular nephrosclerosis or Kimmelstiel-Wilson's syndrome, which is nonreversible

In studying the clinical manifestations a clear-cut picture of mild edema will become evident, and we have designated this protamine edema syndrome because it is found in patients who use protamine zinc insulin only In our opinion it puts the blame on protamine as the offender in initiating and accelerating serious degenerative vascular, metabolic, and infective complications.

Following our clinical observations we continued to look for some tangible laboratory support and further clinical evidence to verify our observations In the laboratory we found that every case of protamine edema recognized would show all or some of the following laboratory features (1) extremely low renal glucose threshold easily differentiated from renal glycosuria, (2) high blood cholesterol (a sign of poor dietetic control), (3) increased blood uric acid, and (4) increased blood creatinine content To further confirm our observation, we noted that the protamine edema disappeared on withdrawal of protamine zinc insulin and substitution of crystalline zinc insulin or regular insulin without any other change in therapy Finally, when the edema cleared, the blood cholesterol, uric acid, and creatinine returned to normal

I would like to give you a brief summary of a few representative cases that were observed over a period of years

Case Report

Case 1 L R , a man aged forty-nine, had been a diabetic for twenty-five years He gave a history of frequent infections, abscess of the neck, and diabetic retinitis He had been taking protamine zinc insulin, 40 units daily He appeared pale with wax-like skin, swollen periorbital tissue, and slightly swollen palpebral margins His blood sugar was 133 mg. per cent with glucosuria 3 per cent, urea nitrogen 26 mg per cent, cholesterol 250 mg per cent, and uric acid 4 7 mg per cent When the protamine zinc insulin was changed to the crystalline zinc form, three times daily and later twice daily, the blood sugar dropped to 110 mg per cent with negative urine The color of the skin improved, the swelling subsided, and the infection cleared up

Three years later he returned to the office because of an infection of the right big toe X-ray showed necrosis of the distal one third of the terminal phalanx The patient had been taking protamine zinc insulin daily for the past year, again the face appeared puffed, and he complained of feeling weak. The protamine zinc insulin was changed to the crystalline form Within two weeks his appearance improved, and the foot healed spontaneously in three months

Case 2—S T , a fifty-one-year-old woman, suffered diabetic neuritis of the hands and feet Her blood pressure was 190/110 The face appeared swollen, and the skin resembled the "myxedema" type. Lids and lid margins were thickened She had been taking protamine zinc insulin, but, when changed to the crystalline zinc insulin three times daily and later twice daily, her appearance returned to normal within a month She came in a year later, confessing that she had been taking protamine zinc insulin for the past six months She complained of general weakness and perspired freely Urine showed 1 to 2 per cent sugar, blood sugar was 110, urea nitrogen 38 mg per cent, creatinine 1 7, uric acid 2 9 After changing again to crystalline zinc insulin, within twenty days the urea nitrogen dropped to 29 mg per cent Two weeks later it was 24 mg per cent and the creatinine 1 3 Her general appearance again improved rapidly

However, a year later the same patient came to the office with definite findings of glomerulonephritis. Her blood pressure was 264/122, blood sugar was 246 mg per cent, urea nitrogen 36 4, creatinine 1 8, cholesterol 400, and uric acid 4 5 The skin was puffy with eyelid margins thickened, but there was no distinct pitting edema She admitted she had been taking protamine zinc insulin After a month of treatment with crystalline zinc insulin the blood pressure dropped to 190/100, and she was discharged improved

Case 3—L C , a forty-six year-old woman, showed symptoms of weakness, uncontrollable diabetes, severe headaches, and claudication Facies was swollen although there was no pitting edema Blood sugar was 285 mg per cent, urine 3 per cent, cholesterol 460, urea nitrogen 12 8 The liver was enlarged The patient had been taking 45 units of protamine zinc insulin daily, and when this was immediately changed to crystalline zinc insulin, there was remarkable improvement of the symptoms

A year later she developed a phlebitis, admitted having returned to protamine zinc insulin, and when she was changed to the crystalline form, her condition showed distinct improvement following four months' hospitalization

Case 4.—Another illustrative case was R. N., a woman aged fifty-two, who complained of vulvar itch and pains in her right large toe. The urine showed 5 per cent sugar. She was a distinct pituitary type and verified a suspicion of an adenoma by x-ray of the sella turcica. There was difficulty in controlling the diabetic state on 35 units of protamine zinc insulin, and she showed consistent weight gain. When changed to regular insulin three times daily, her diabetes was controlled completely. While on a vacation, she again resorted to protamine zinc insulin, and six months later all of the previous symptoms had returned.

Comment

These cases had several things in common. When patients were using protamine zinc insulin, they showed facial puffiness, thickened lids and lid margins, increased blood cholesterol, creatinine, and uric acid. All of the cases had a low kidney sugar threshold while on protamine zinc insulin. When the medication was changed to regular insulin, these conditions disappeared, showing that at this stage the pathologic physiology is reversible.

Many features of the cases I have just mentioned, as well as the other cases I have seen, may, on first impression, appear to resemble the syndrome reported by Kimmelstiel and Wilson[1], yet they differ, mainly in that the latter is irreversible. On closer inspection one notes that the Kimmelstiel-Wilson syndrome is a terminal stage of a progressively destructive vascular pathology. Extensive edema, heart failure, massive albuminuria, high blood urea nitrogen, and hypertension are mentioned, and it is noted that the cases occurred in patients of advanced age. In our cases there was a definite impairment of the concentrating power of the kidney, both for sugar and albumin.

It appears logical, therefore, that if a diabetic patient treated with protamine zinc insulin showed signs of the protamine syndrome, such as symptoms of slight facial puffiness or orbital lid puffiness, together with a blood chemistry of high cholesterol, uric acid, and creatinine, further advance of this syndrome might lead to intercapillary glomerulosclerosis, just as any other cause which leads to kidney pathology. On the other hand, if the protamine syndrome is kept in mind, a reversal to quick-acting insulin may prevent the advanced irreversible changes of kidney disease. Joslin pointed out that nephritis rarely occurs in the diabetic who controls the disease with diet and insulin.[2,3]

We can all accept Dolger's view that an accelerated arteriosclerosis is characteristic of diabetes mellitus.[4] Furthermore, this damage is most marked in the terminal vessels of the eye, kidney, heart, and extremities. The early finding of retinal hemorrhages, albuminuria, and hyptertension are evidence of such view. However, we disagree with Mirsky who states that "it makes little difference how the diabetic is treated. If he lives long enough he will develop one or another form of vascular disease."[5] This statement requires modification, especially in view of our clinical studies with protamine mentioned in this report.

Conclusions

On the basis of our observations the protamine edema syndrome seems to be characterized by (1) its appearance in diabetics using protamine zinc insulin exclusively, at any age and in both sexes, (2) anemia, (3) waxlike texture of the skin, (4) swelling of the periorbital tissues or edema, (5) edema of the palpebral margins, (6) slight pretibial or ankle edema with increasing edema in the surrounding tissues in complicating infections or vascular disease, (7) low renal threshold for glucose, (8) moderate albuminuria, (9) high blood cholesterol, (10) high uric acid, (11) high creatinuria, and (12) disturbed albumin-globulin ratio. All these symptoms and signs, as stated before, disappear on the discontinuance of protamine zinc insulin.

Protamine zinc insulin having been used extensively since 1936, it is possible that much of the increase in vascular degeneration noted may be due to the protamine used. I offer this as one explanation of the cause of accelerated vascular damage. Should this work be corroborated, it may open new avenues of metabolic research for better diabetic care and the reduction of vascular damage in the diabetic.

61 Eastern Parkway

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THE PSYCHOSOMATIC STATUS—GASTRODUODENAL ULCER AND VAGOTOMY

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THERE is no doubt that, no matter what the primary cause of gastroduodenal ulcer may eventually be proved to be, there are two important factors which go into the total, presently recognized concept of ulcer formation. American thought has assumed the overpowering importance of gastric hyperacidity and hypersecretion almost to the exclusion of any other factor Experimentally, Carlson has shown that a continuous gastric secretion occurs which is not necessarily dependent on the presence of food and is neutralized by the mucus of the pyloric antrum, by the saliva, and by regurgitated duodenal contents If this neutralization is for any reason inadequate, pure gastric juice accumulates in the stomach Excessive secretion of gastric juice, produced by histamine, fairly regularly produces ulcers in all the common laboratory animals This leads to the concept that the hypersecretion of gastric juice in gastroduodenal ulcer is largely neurogenic and is the basis of ulcer

There is no doubt also that gastroduodenal ulcer has marked psychosomatic factors A defect in the stomach or duodenum is objectively real to the roentgenologist, surgeon, and internist and subjectively real to the patient because of its symptomatology Nevertheless, there is no doubt that the strains and tensions of modern life produce mental conflicts, and the reactions to them transmitted along vagus pathways result in increased gastric motility and vascularity and decreased mucin formation, all of which are highly conducive to ulcer formation

Fundamentally, the ulcer "diathesis" resides in the basic character structure of the individual which readily thrusts the patient into the peptic ulcer type of situation The emotional reaction of the patient becomes of greater significance than the effect of any particular diet or drugs utilized in the treatment This concept affords a better understanding of the many confusing manifestations of the ailment and makes available a more flexible and effective approach to them In any event, the psychosomatic influences are strong and play an important part in the ulcer syndrome and its manifestations

Apparently, these physiologic concepts are also clinically sound The realization by Hartzell that the neurologic pathways in either case are through the vagi nerves suggested the experimental demonstration of the effect of complete section of the vagus nerves in decreasing or abolishing gastric acidity, incomplete section was disappointing

The present enthusiasm for vagotomy and vagus neurectomy is based on this concept Much concern with technical matters considers the importance of complete division of the vagus fibers, if success is to be assured, and a distinction must be made between vagotomy and vagus resection or neurectomy The anatomic patterns of the vagus nerves in about ten per cent of the cases are not uniform, numerous branches of the esophageal plexus fail to form into common trunks on one or both sides of the esophagus, and there is difficulty in isolating and sectioning all the gastric nerves This seems to justify the thoracic operative approach as the best method of obtaining complete division of all the vagus fibers Complete division of the nerve trunks of the vagus is the accomplishment desired and the method of choice Otherwise, the procedure, in effect, is really a "stripping" of the vagus fibers from the esophageal wall from the level of the hilum to the gastric fundus

Nevertheless, recent anatomic investigations show that in slightly more than 90 per cent of the cases, a transabdominal subdiaphragmatic surgical approach will allow as nearly a complete division of all the gastric nerves as will a transthoracic approach In addition, the abdominal approach allows exploration of the abdominal contents and, especially, of the ulcer, to enable recognition of any malignancy If gastric atony or obstruction is present, or likely to follow later, a drainage operation also can be done on the stomach simultaneously

In any event, the possible technical difficulties are, therefore, of an inherently anatomic nature and undoubtedly lead to some of the unsuccessful results In any event, the necessity of repeated physiologic tests to determine residual vagal innervation of the gastric glands is clear in order to make sure that no other reason is present for any nonsuccess of vagotomy

In either case, and with modern safeguards and technic, the operation is not unduly difficult The mortality is very small in competent hands In the cases operated on through the chest, pulmonary complications are not difficult to handle

Because of the neurologic functional changes, the postoperative management must extend for a considerable time—three months or more—and

* Dr Wilensky died on February 4 1949 Therefore only editorial corrections have been made on this manuscript

consists essentially of aiding the stomach to overcome the changes in gastric motility, especially since many patients who have been thus tided over a bout of motility symptoms have remained well subsequently

Up to the present time, vagotomy or vagus neurectomy has been done as the sole primary procedure, or has been done secondarily after previous gastric resection, gastroenterostomy with or without other procedures such as local excisions, or pyloroplasty The immediate operative mortality is around one per cent, and the late mortality is about the same, according to the published reports

Cases with refractory ulcers of long duration and intractability of symptoms in which vagus resection was done have been reported by many authors [1-8] Good results were reported by these various groups As shown by the sum total of the reported observations, bilateral complete vagus resection apparently does the following things It relieves ulcer pain immediately, followed by healing of the ulceration It will decrease or abolish the gastric acidity, decrease hypersecretion, and decrease hypermotility These are desirable effects because they are constant, symptom-producing accompaniments of ulcer

The most pronounced effect of the operation is apt to follow in the younger group with duodenal ulcer who present, in varying degree, other signs of nervous tension and instability

Most observers have found the relief of pain "striking" In contradistinction to this, the Mayo group has found the relief of pain "good" but not striking, and "inconstant, variable and unpredictable otherwise" [9] The complete relief of pain after vagotomy is not an unmitigated blessing and is fraught with danger Recurrent ulceration, perforation, and obstruction may be difficult to recognize [1] Such experiences have already occurred even as close as fourteen days after gastric neurectomy and gastroenterostomy [1,9,10]

The reduction in gastric secretion produced by complete vagus division corroborates the premises that hypersecretion is neurogenic in character The decrease in fasting acidity which follows vagotomy gradually returns toward normal, until, at the end of a year, little abnormality can be found The secretory response to insulin-induced hypoglycemia remains abolished in most cases, and the clinical well-being of the patients also appears to outlast the duration of the early secretory and motility changes

Operation is followed by changes in gastric motility with reduction and possible disappearance of any hypermotility Nevertheless, in the satisfactory cases, most of the cases showed a normal tonicity at the end of the first year

Gastroscopy shows a *patulous antrum* and lessened peristaltic activity after vagotomy After subtotal gastrectomy and vagotomy, gastroscopy frequently shows edema, erosion hypertrophy, and friability in the residual gastric pouch and the attached jejunum

The available facts suggest strongly that any prolonged relief which this surgical procedure confers upon the patient is due "to some more subtle effect" which is "traceable to severance of those nervous pathways which communicate the patient's adaptive reactions from the brain to the stomach" After resection of the nerves such impulses cannot reach the stomach

In the primary vagotomy or vagus resection cases, between 85 and 90 per cent have good subjective results for periods up to thirty months postoperatively, but in half of these the results are not quite so satisfactory as in the others In the series reported by Grimson *et al* completely satisfactory results after transthoracic vagotomy alone were obtained in only 25 per cent of the cases [3] About 10 to 15 per cent of the cases have a frankly poor result, either with a demonstrable recurrence or symptoms of ulcer A similar number have sufficiently severe side-effects to detract materially from their satisfaction with the result Cases which had gastrojejunal stomas, either primary or secondary, have the same incidence of distressing side-effects

The unsatisfactory results after vagotomy are due to the following (1) vomiting during the first several months, (2) hematemesis, (3) melena, (4) recurrent severe abdominal pain and distension, (5) fullness after eating, (6) temporary or continuous foul eructations, (7) continuous or periodic looseness of stools, and (8) serious diarrhea

The greatest difficulty has been the occurrence of obstruction at the outlet of the stomach with retention of the gastric contents and dilatation In some cases, the obstruction is cicatricial, in others the removal of vagus control produces a failure of coordination between contraction and relaxation waves at the pylorus and a relative obstruction termed "achalesia" by Hurst There is a strong temptation to do gastroenterostomy under these conditions, but it can usually be avoided Nevertheless, in actual practice, secondary gastroenterostomy was done in 10 per cent of the various groups of cases in the first three months after operation It is pointed out that, as treatment for frank obstructions, the procedure is usually effective, but, as a means of avoiding other gastrointestinal side-effects, it is ineffective

Under certain conditions disturbances of motil-

ity and of secretion are more apt to follow. According to Moore *et al* the immediate combination of vagus resection and gastroenterostomy does not seem appropriate in cases with frank cicatricial obstruction, according to the Mayo Clinic group similar disturbances have followed excision of the ulcer-bearing area with vagotomy [7–9] In the Johns Hopkins group, all of the failures occurred in the patients who had vagotomy without any additional operative procedure, either plastic or ablative, on the stomach itself [1] The results have been uniformly satisfactory in the 24 patients undergoing some such procedure in addition to vagotomy The most satisfactory results of all occurred in the ten patients in group three who had gastroenterostomy or pyloroplasty along with vagotomy Such contradictory statements are somewhat difficult to understand

One must agree with the conclusions of the Mayo group—that if lasting and persistent good results could be assured, vagotomy or vagus neurectomy would offer an easy and comparatively safe method of treating certain peptic ulcers, especially recurrent ulcers [9] However, if one is to employ this procedure in the management of gastroduodenal ulcer, the position of the Lahey Clinic seems, for the present, sound "To make use of it in secondary operations in a patient who had had a subtotal gastrectomy and then had a recurrent jejunal ulcer, the reason for this being that even though atony in the remaining stump is produced, there is still good drainage as there is no contracted pylorus to produce obstruction, and, in addition, the technical difficulties of a second subtotal gastrectomy in the presence of a jejunal ulcer can be considerable" They also employ infradiaphragmatic vagotomy in most of the patients upon whom subtotal gastrectomy is done for duodenal ulcer in the hope that, by means of this, they can possibly cut down the incidence of gastrojejunal ulcer and recurrent bleeding Their third suggestion is "to reserve any cases of duodenal ulcers in which vagotomy is to be employed to one in which it would seem unlikely that, with the healing of the duodenal ulcer, pyloric obstruction would occur and gastroenterostomy becomes necessary" [11] Unfortunately, such a state cannot accurately be predicted

The comment of Moore *et al* and of the Lahey group should be well taken—that when vagotomy or vagus neurectomy is combined with other operative procedures, gastroenterostomy, resection, etc, the correct interpretation of the therapeutic effect of the former becomes confused [7 8 11] It becomes impossible to attribute the success of the operation to vagus resection alone, since good results have previously been obtained with the other operations alone One must not forget the terminal fate of many other similarly enthusiastic proposals, the most prominent and recent of which was total thyroidectomy for heart disease One must keep this in mind to prevent our running away now with vagotomy and vagus neurectomy in its stage of initial enthusiasm.

Summary and Conclusions

In gastroduodenal ulcer, the two important symptom-producing factors are hyperacidity and hypersecretion and a psychosomatic status Both of these depend upon a neurogenic basis, and the effects of the latter are transmitted to the stomach along the vagus nerves This concept furnishes the basis for vagotomy and/or vagus neurectomy

At the present writing, and in any event, vagotomy is essentially a symptomatic form of treatment in such an individual in which the symptom-producing effects of the fundamental neurogenic basis are blocked in their transmission and are vitiated by division or excision of the vagus nerves The available evidence indicates that the efficacy of vagotomy or vagus neurectomy as a temporary or permanent, alleviating, curative and/or preventive measure, the potential dangers of this procedure, and the question of ultimate regeneration of the divided nerves have still to be judged finally in the fire of continued, repeated trial and prolonged observation

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THE DATES FOR THE A.M.A. CONVENTION ARE JUNE 6 THROUGH 10, AT ATLANTIC CITY, NEW JERSEY

ACUTE GENERALIZED PERITONITIS DUE TO SPONTANEOUS RUPTURE OF PYOSALPINX

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SPONTANEOUS rupture of a pyosalpinx is one of the rarer causes of acute generalized peritonitis Bonney reported a case of rupture of a pyosalpinx and carefully reviewed 44 other authentic cases collected from different sources [1] Bovee collected statistics from 55 cases and submitted the history of an additional case which occurred in his own practice [2] In the majority of the reported cases there was no assignable cause for the rupture Norris found 99 cases of ruptured pyosalpinx with peritonitis in the literature [3]

Huet recorded the common mechanical causes for the rupturing of a pyosalpinx [4] He emphasized the need for differentiation between traumatic rupture and nontraumatic perforation, since the mortality rate of the former is much less than in the latter group With the fallopian tubes protected as they are—laterally by the bony wall, below by the strong perineum and the intervening structures, and above by the thick layer of intestines and the abdominal wall—rupture resulting from accidental trauma is of rare occurrence Rupture caused by ill-advised or too vigorous bimanual examination has been reported by various authors

Feeney stated that the sum total of cases of spontaneous rupture of pyosalpinx in the literature was less than two hundred fifty, and he questioned whether this figure underestimated the frequency of the condition [5]

In a brief paper, such as this, the pathology of pyosalpinx need not be reviewed It is generally accepted that the gonococcus is the responsible organism in about 75 per cent of the cases The streptococcus, tubercle bacillus, staphylococcus, and other miscellaneous organisms have also been the causative agents It is also generally known that the cultures from the pyosalpinx due to the gonococcus later become sterile It is interesting to note that spontaneous rupture of pyosalpinx occurs more commonly on the right side, in spite of the bilateral involvement The clinical history varies, but, in general, it is usually one of sudden onset of severe pain in the lower abdomen, more marked on the right side, with progressive spread of symptoms to the entire abdomen suggesting local and generalized peritonitis The diagnosis is rarely made preoperatively, usually being mistaken for peritonitis secondary to a ruptured appendix In the differential diagnosis other conditions such as ruptured appendix, ruptured tubal pregnancy, and ruptured gastric and duodenal ulcers have to be considered

The treatment is by surgical intervention Some insist on a salpingectomy or a panhysterectomy, others leave the ruptured tube *in situ* and establish peritoneal drainage with a Penrose drain or some similar material Gastric and intestinal drainage plus intravenous fluids, with maintenance of normal protein and electrolyte balance, are used when paralytic ileus is encountered The use of penicillin and the sulfonamides, together with spinal anesthesia, have aided in the salvage rate of this condition.

The following case of spontaneous rupture of pyosalpinx is taken from the author's own practice

Case Report

The patient was a white, married woman of forty-eight years who was admitted to the White Plains Hospital on February 17, 1946, complaining of severe abdominal pain which had begun eight days previously The patient was somewhat hazy about the character of the pain during the following few days, but she spent most of the time in bed Flexing the knees on the abdomen would somewhat relieve her pain There was occasional nausea but no definite vomiting She was up and about part of the time, but walking was possible only in the bent-over position Movement of her legs caused abdominal distress She also noted definite abdominal distension with bloating and increasing inability to pass flatus There were no chills or urinary symptoms During the two days prior to admission there was increased intensity of pain all over the abdomen

Her past history was noncontributory There had been menopausal symptoms for the past year She had never been pregnant

On examination, the temperature was 102 6 F , pulse 102, and respirations 15 She appeared acutely ill and dehydrated During the examination she complained of intermittent abdominal pain going from the symphysis pubis to the epigastrium with some radiation to the right side Lips and tongue were dry, and the heart and lungs were negative Blood pressure was 120/80

The abdomen was of symmetric configuration and slightly distended During episodes of pain one could not observe any outline of intestinal peristalsis There was a hypertympanitic percussion note throughout the abdomen except for a dull area two finger-breadths above the symphysis and in

both abdominal flanks There was limited abdominal respiratory movements, and these were associated with definite intra-abdominal pain Palpation revealed quite pronounced muscle rigidity (not boardlike) throughout There was exquisite tenderness throughout the abdomen on direct pressure Oscultation revealed no peristaltic action

On pelvic examination only pronounced tenderness in the rectopelvic shelf could be made out

The results of the laboratory examination were as follows red blood cells 4,450,000, hemoglobin 13 7 Gm., color index 0 97, white blood cells 5,100, polymorphonuclears 80 per cent Urine was acid, specific gravity 1 023, sugar negative, albumin heavy trace, acetone 4 plus, microscopic 8 to 10 pus cells, per high power field—moderate number of red blood cells and many hyaline casts

The diagnosis at this time was diffuse peritonitis and intestinal obstruction It was impossible to determine whether the intestinal obstruction was on a mechanical basis or whether it was a secondary paralytic ileus due to the peritonitis.

Soon after admission, the patient was given 2,000 cc of 5 per cent glucose in saline intravenously Penicillin and sulfadiazine therapy were instituted Twelve hours later the blood chemistry was checked with the following results hematocrit 38 9 per cent, chlorides 552 mg per cent, carbon dioxide combining power 46 volumes per cent, serum amylase 121 Somoggi units per cent, total plasma protein 6 0 per cent Blood count was as follows red blood cells 3,950,000, hemoglobin 12 6 Gm , color index 1 0, white blood cells 18,650, neutrophils 85 per cent, nonsegmental forms 64 Urine showed a trace of albumin, and microscopic examination showed a moderate number of white blood cells, many red blood cells, and no casts Radiographic examination of the chest by means of bedside unit showed some congestion in the right central lung field There was no evidence of lung consolidation or pleural effusion Flat plate of abdomen showed no conclusive evidence of rupture of a hollow viscus The latter exposure showed a suggestion of free air No evidence of obstruction in the small intestine

An exploratory laparotomy was performed February 18, 1946 A lower right rectus incision was made under spinal anesthesia On opening the peritoneal cavity about 1,000 cc of seropurulent fluid was found spread over the entire cavity The ileocecal region was explored The base of the appendix appeared edematous, and the distal portion could be palpated retrocecally but could not be visualized The appendix was removed in retrograde fashion, and it was then apparent that it was secondarily involved and was not the primary cause for the peritonitis The right adnexal region was then explored and the seat of the trouble immediately recognized There was a rent 1½ cm. in diameter on the upper midportion of the right pyosalpinx from which oozed grayish-white, seropurulent fluid There was a similar pyosalpinx in the left adnexal region, both measuring approximately 7 by 3 by 2 cm The uterus was injected and covered by fresh fibrinous exudate similar to that found on the coils of the small intestine in juxtaposition Three Penrose drains were inserted in the right pelvis and right lumbar gutter Routine closure in layers of abdominal wall was done

Culture of abdominal fluid revealed the following Microscopic examination showed many pus cells (polymorphonuclears 90 per cent) Of the four stained films studied, one film revealed presence of one short-chain, gram-positive, lancet-shaped diplococci Microscopic examination of both aerobic and anaerobic cultures failed to reveal the presence of bacterial growth after four days' incubation

The postoperative course was rather uneventful except for the first three days The day after operation the patient had a bout of dyspnea which followed an effort to expectorate some thick mucus Temperature was 99 8 F by rectum, pulse 120, and respirations 22 Examination of the chest revealed rales and rhonchi at the left base The following day the patient became more dyspneic and also cyanotic The pulse rate increased to over 200 per minute An electrocardiogram tracing at this time was reported as showing sinus tachycardia. The patient was readily relieved of her dyspnea by oxygen administered under positive pressure (Barach-Eckton mask) She was given two transfusions of 500 cc of whole blood Penicillin and sulfadiazine therapy continued The abdomen was moderately distended for four days postoperatively Some soft stool and flatus were passed by rectum Check x-ray examination of the chest five days postoperatively showed a right pleural effusion The effusion obscured the dependent portion of the right lung and the heart border Following the acute episode on the second postoperative day, the pulse and temperature remained normal throughout the course in the hospital The abdominal drains were removed on the eighth day The abdominal distension decreased after the third day, and the patient's appetite improved immediately after regular passage of flatus and stool on the fifth postoperative day When the patient was about to be discharged, she complained of some fleeting abdominal cramps following ingestion of food Her abdomen was soft at this time, there were no tender areas, bowels were moving normally, temperature and pulse were normal At time of discharge, twenty-one days postoperatively, the wound had healed per primum and the sinus drainage site had closed

Following discharge the patient was up and about, enjoying good health Occasionally she complained of transient abdominal cramps following ingestion of food On April 1, 1946, three weeks after discharge from the hospital, the abdominal cramps suddenly became aggravated There was slight nausea but no vomiting or distension

She was readmitted to the hospital for observation. On examination, she appeared acutely ill The temperature was 99 5 F , the pulse 90 Periodically, during the examination the patient doubled up because of abdominal pain The cramps recurred every three to five minutes There was moderate abdominal distension The abdominal wall moved with respiration No intestinal patterns were seen There was marked tenderness in midabdominal region extending to the left Left rectus muscle was spastic with borborygmus on the left

After twenty-four hours of observation, during which time intravenous fluids had been given and Miller-Abbott tube had been passed, it was deemed advisable to explore the abdomen Preoperative diagnosis was intestinal obstruction Spinal anesthesia used A lower right rectus incision was made lateral to the previous incision On entering the peritoneal cavity, a coiled mass of adherent small bowel was seen just medial to the incision These were separated by sharp and blunt dissection It was then possible to visualize the dense fibrous adhesions between the right tube and the terminal portion of the ileum and the lower angle of the wound. The small intestine above this area was dilated while the portion below the constriction was narrowed The entire small intestine was mobilized into the wound and checked from the ligament of Treitz down to the ileocecal region Several fibrous bands were severed in the ileal portion of the bowel. Abdomen was closed in layers The patient was discharged on the fourteenth day of the last admission The patient's course since that time has been entirely uneventful

Summary

A brief review of the literature of spontaneous rupture of pyosalpinx plus a brief history of a personal case are presented The purpose of presenting this case is to emphasize the need of considering ruptured pyosalpinx in the differential diagnosis of peritonitis in women

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THE "MEDICAL" TREATMENT OF PILONIDAL DISEASE

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(From the Department of Medicine, Richmond Memorial Hospital)

THERE exists general dissatisfaction with the treatment of pilonidal disease because of the high rate of recurrence Any review of the literature, which has grown voluminous, reveals practically as many methods of treatment as there are surgeons The battle between open versus closed procedures goes on with innumerable methods of eliminating "dead space" Procedures for grafting new skin, pressure bandages, etc , are published frequently

With considerable trepidation another method is here suggested It has the advantage of being wholly an office, outpatient, or, in acute abscesses, a home treatment, easily performed, requiring no expensive hospitalization, no anesthetics, and no loss of time from work

Interest in the subject started during my period in the armed services where many of these cases were first seen If an acute accumulation was present, these patients were treated by simple incision and packing with tyrothricin [1] This is readily done by soaking gauze wicks in commercial, freshly diluted tyrothricin The dilutions are made by adding 60 cc of sterile distilled water to 15 drops of tyrothricin Sufficient packing was introduced to fill the area loosely This was secured in place with waterproof adhesive plaster

These men were not hospitalized They came in to the sick bay for moistening of the area with tyrothricin twice daily if they lived on the base, or it was attended to by themselves or a member of the family if they lived at home The patient was instructed to wet the packing every three hours He was given a test tube with a line marked on it with a glass file indicating 60 cc This he filled to the mark with boiled tap water, then added 15 drops of tyrothricin for each day's supply of the agent He was advised that a new dilution had to be prepared each day The physician inspected the area at intervals of several days to a week depending on the quantity of discharge At each visit the packing was removed (soaking with peroxide making this procedure fairly painless), and less packing was replaced until none was necessary

Even in the case of acute abscess, it is rarely necessary for a patient to be hospitalized The area can often be incised on the first visit, since the infection appears in a previously existing cyst

In only one of 40 cases was there cellulitis about the infected cyst, which required three days in the sick bay

Acute cases give symptoms only when infected, and the infection responds readily to installation of tyrothricin This can be introduced with a medicine dropper applied to the small sinuses, or, preferably, the sinuses should be connected by a linear incision under novacaine which facilitates the introduction of the tyrothricin pack

These military patients did well and were asymptomatic Unfortunately, the shifting about of naval personnel rendered long follow-

TABLE 1.—TREATMENT OF 15 CASES OF PILONIDAL DISEASE

Sex	Age	Previous Operation	Days to Obliterate Disease[1]	Recurrence[2]	Number of Intracystal Injections to Cure	Number of Pericystal Injections to Cure	Weeks to Effect Cure from First Visit	Days Lost from Work[6]	Length of Follow-up (Months)[7]
M	40	Yes	14	Yes	4		10	0	30
F	18	No	23	Yes	Sinus[3]	5[4]	12	2	26
M	52	No	7	No			1	0	25
F	23	No	10	Yes	Sinus[3]	4[5]	13½	4	22
F	37	Yes	8	No			1	0	22
F	42	No	12	Yes	2		6	0	20
M	21	Yes	14	Yes	Sinus[3]	24	26	4	19
M	32	No	15	Yes	1		3	0	18
M	33	No	14	Yes	3		8	0	18
M	22	No	19	Yes	3		9	0	18
M	18	No	11	Yes	5		11½	0	16
M	28	Yes	24	Yes	Sinus[3]	18	24½	0	15
M	44	No	20	Yes	12		27	0	15
F	30	No	17	Yes	2		6½	0	14
F	31	No	13	No			2	3	14

[1] To close cyst or render free of infection so that morrhuate could be started.
[2] Draining or nondraining sinus infection, or abscess
[3] Intracystal injection not done as small open sinus permitted sclerotic to leak out
[4] Patient had 5 weekly pericystic injections 2 fortnightly intracystic injections
[5] Patient had 4 weekly pericystic injections and 4 fortnightly intracystic injections
[6] Acute abscess.
[7] There are several additional cases which have not been followed sufficiently long to report but they are progressing much as are the above.

up of these individuals impossible However, all of those treated continued their usual activities One was not at all certain that these were cures since, as stated above, they were not observed for sufficiently long periods

Since my return to civilian practice, the same methods have been used, and follow-up studies have been possible The patients reported in this paper were all treated in my office and have been seen personally (Table 1)

The method described rendered patients asymptomatic but, as might have been anticipated, was rarely a cure, since evidence of continuing disease reappeared in 12 of 15 cases Patients were not disabled by these recurrences, however In one, the sinuses reappeared and were objectionable because of the odor of the discharge This was successfully re-treated by the original method

In all cases after treatment the sinuses closed for a while, but evidence of the continued presence of the cyst was noted by the thin appearance of the skin over the cystic area or by subsequent infection or opening of the sinus

Consequently, an effort was made to obliterate the cyst as soon as the sinuses closed, following the tyrothrycin therapy, by the introduction of 5 per cent sodium morrhuate into the cyst The 27-gauge 1-inch needle was never introduced into the cyst through the midline but rather through the skin about ½ inch lateral to the cyst margin Enough morrhuate was injected to distend the cyst When the needle was introduced in the midline, the newly healed tissues always lacked sufficient elasticity to close the needle hole, and the morrhuate solution leaked out and the sinus recurred A procaine wheal raised at the site of the introduction of the needle renders this procedure painless Patients were instructed to return at fortnightly intervals, and injection was carried out repeatedly until the cyst was a firm scar This required from one to 12 injections

In some cases the cyst never closed without sinus formation even after the tyrothrycin dressings were applied (four of 15 cases) In these individuals instillation of the morrhuate solution always failed, since it ran out of the sinuses In these cases the morrhuate was introduced again from the side, but the scarified area was at the base of the cyst (in the healthy tissue). In two cases repeated injections, at weekly intervals, of ½ to 1 cc of 2 5 per cent solution built up a scar which gradually obliterated the cyst from the bottom In the course of this treatment two of the sinuses closed so that again the cyst itself could be distended with 5 per cent solution as described These then healed promptly The remaining two cases have healed as well but took considerably longer (18 to 24 injections)

All of these cases have now been followed a minimum of one year, and they have remained cured thus far, by cured I mean there is no sinus and no evidence of cyst There is scar tissue The patients are highly pleased, particularly those who had undergone previous surgery They have been instructed that the cysts may break down and require further treatment, but they do not seem discouraged since they will not need an operation

This series is small, but it suggests that pilonidal disease may be treated conservatively with antibiotics during the acute phase and with obliteration of the cyst by sclerotics after the infection has subsided

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PAPAVERINE IN EPILEPSY

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THE HYPOTHESIS that the epileptic attack is due to cerebral vascular spasm has been generally abandoned within recent years Nevertheless, experimental support for a vascular basis in epilepsy is offered by the observation that at the onset of a "fit" there is intense pallor of the cortex of the exposed brain [1] That interruption in the blood supply to the brain may be one significant factor in the precipitation of seizures is further suggested by the occurrence of convulsions in animals following occlusion of the circulation to the head The clinical observation that amyl nitrite may abort a seizure if administered early during a long aura is also in accord with the view that cerebral vasoconstriction is causally related to the epileptic attack.[2] Theoretically, therefore, the administration of a vasodilating drug capable of prolonged effect may have prophylactic value in the treatment of this disease

Earlier experience with papaverine in the management of "hypertensive" encephalopathy, a syndrome also considered to be dependent upon cerebral vascular spasm, led the authors to a consideration of this drug for epilepsy [3] In the previous study, moreover, this disease was not definitely excluded in a few of the cases which showed striking response to treatment It seemed desirable, therefore, to observe the action of papaverine on patients in whom the diagnosis of epilepsy had been clearly established. That this drug might have prophylactic value in the control of grand mal seizures was further suggested by its reported effectiveness, administered intravenously, in successfully terminating status epilepticus [4]

In the cases herein reported, papaverine hydrochloride was administered orally in large doses to two patients who had failed to respond satisfactorily to the usual measures employed in the treatment of this disease

Case Reports

Case 1—J K, a six-year-old white boy with a history of convulsions at six weeks of age, sustained a head injury followed by a generalized convulsive seizure at the age of three years One year later he suffered a third generalized convulsion and was hospitalized at the Neurological Institute

Examination was essentially negative X-ray of the skull did not reveal evidence of fracture or increased intracranial pressure Psychometric examination disclosed an intelligence quotient of 111 Pneumoencephalogram was not performed The electroencephalogram was grossly abnormal A diagnosis of idiopathic grand mal was made Patient was placed on dilantin and phenobarbital, 1/2 grain each three times a day, upon discharge from the hospital.

During the ensuing twenty-one months the seizures gradually increased in frequency and severity, in spite of appreciable increase in the dosage of these drugs On examination in March, 1948, the convulsive seizures were recurring approximately two to three times a month Each episode was preceded by an aura of "black spots" in front of the eyes Three of the seizures were followed by a temporary left hemiparesis which persisted for several hours Dilantin was discontinued at this time, and papaverine hydrochloride was substituted in the dosage of 2 grains four times a day No recurrence of seizures has developed on this regime during a period of six months, although on a dozen or more occasions the patient has had the usual aura without subsequent onset of convulsive attacks

Case 2—A. L, a thirty-two-year-old white man, gave a history of recurring "fits" since the age of six years The attacks were generally preceded by visual aura when the patient was awake Most episodes, however, occurred during sleep The attack was characterized by a generalized convulsive seizure during which there was biting of the tongue and incontinence of urine and feces Within recent years the episodes had increased in frequency so that in May, 1947, they were recurring two or three times a week.

On physical examination the patient responded to questions in a slow deliberate monotone. There was a set, masklike facies Skin showed dermatographia Neurologic examination revealed increased superficial and deep reflexes There was a slight intention tremor There was no evidence of increased intracranial pressure Kahn test for syphilis was negative. Electroencephalogram was interpreted as indicative of grand mal

Patient was given 1/2 grain of phenobarbital and one and one-half grains of dilantin four times a day for a period of six months On this therapy there appeared to be only slight improvement. In November, 1947, dilantin was discontinued and three grains of papaverine were administered with the previous dosage of phenobarbital four times a day

Two attacks developed during the ensuing month Papaverine was then increased to 4 1/2 grains four times a day No attack has occurred during a period of eight months on this therapy Substitution of placebo medication, however, for a period of

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one week, resulted in the development of two episodes.

Discussion

Most authorities no longer accept the view that cerebral angiospasm may be a link in the chain of reactions which terminate in the epileptic attack They point out that "the cerebral arteries are feebly contractile vessels showing little or no reaction to vasoconstrictor agents "[5] It cannot be denied, moreover, that only slight constriction has been evoked by such measures as stimulation of the cervical sympathetic fibers and direct application of epinephrine to the cerebral vessels On the other hand, physiologists have long maintained that the cerebral arteries respond paradoxically to sympathetic nerve stimulation by dilatation, a mechanism designed to maintain blood flow during states of shock or flight A more recent view, however, is that these vessels are maintained in a state of tonic dilatation by humoral vasodilators [6] Thus, in either case, failure of the cerebral vessels to respond to sympathomimetic agents must not be construed as evidence that these arteries are incapable of undergoing spasm Intense constriction of the pial arteries has actually been observed in animals following both electrical and mechanical stimulation [5] Indeed, the most direct support for a vascular basis in epilepsy has been the observation of marked spasm of the arteries of the exposed cortex following an epileptic attack induced by electrical stimulation [1] To the argument that the weak media of cerebral vessels cannot sustain appreciable constriction may be opposed the fact that the retinal arteries, whose structure is similar, can frequently be seen to do so [7]

Two cases of epilepsy have been presented in which cessation of attacks appeared to be directly related to the administration of large oral doses of papaverine several times a day These observations are being reported in the hope that they will stimulate further investigation Possible benefit from this drug may also be anticipated in the vasoconstrictor phase of migraine in which phenomena of an epileptic order have been observed [8] It cannot be emphasized too strongly that dosage as high as 15 or 18 grains per day may be necessary for therapeutic response

The possibility exists that epilepsy may be closely related in pathogenesis to the syndrome of vascular encephalopathy from which it may be clinically indistinguishable Conversely, it has been suggested that hypertensive encephalopathy may, in reality, be based on constitutional dysrhythmia of the electrical brain waves just as in epilepsy [7] In the former condition the rise in arterial pressure has been regarded as the trigger mechanism to initiate the attack. Thus it has been postulated that the difference between the seizures in these conditions "might be due simply to the hypertensive substrate on which the seizure plays" On the other hand, similar cerebral episodes may occur in the absence of hypertension, as, for example, in cerebral arteriosclerosis, acute glomerulonephritis, and lead poisoning [3] Obviously, then, other trigger mechanisms must exist besides the hypertensive one Further clinical, experimental, and electroencephalographic investigations may reveal that the seizures and electrical brain wave alterations in these varied conditions have a common vascular basis, namely, cerebral angiospasm The apparent response of epilepsy and vascular encephalopathy to large doses of papaverine tends to support this hypothesis

Summary

Evidence exists to support the view that cerebral vascular spasm precedes the epileptic attack Favorable response to papaverine in the treatment of cerebral angiospasm associated with hypertensive disease suggested the use of this drug for epilepsy Two cases are presented in which large oral doses of papaverine prevented grand mal seizures which previously had failed to respond to the usual measures employed in the treatment of this disease Further studies are indicated to evaluate this therapy for epilepsy and for the vasoconstrictor phase of migraine Dosage as high as 15 to 18 grains per day may be essential to a satisfactory response Epilepsy and vascular ("hypertensive") encephalopathy may differ only in the manner in which underlying cerebral vascular spasm is initiated

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THE ADDITION OF NIACIN TO PROCAINE HYDROCHLORIDE FOR INTRAVENOUS ADMINISTRATION

Preliminary Report

DAVID J GRAUBARD, M D , EUGENE NEUWIRTH, M D , and JOSEPH KOVACS, M D ,
New York City

CLINICAL investigation of the intravenous administration of procaine hydrochloride has indicated that the results achieved by this method are based on the diminution of vasospasm and, as a corollary, the relief of pain [1-3] Since it has been demonstrated that niacin or nicotinic acid has a vasodilating effect, especially upon the capillary bed, investigation of the combined simultaneous administration intravenously of procaine hydrochloride and niacin was undertaken at the suggestion of one of us (E N) [4-9]*

This report is based on the combined use of these drugs in 47 cases with a total of 142 infusions An additional 22 patients who were given 43 infusions of niacin-procaine hydrochloride are not included in this series because they represent our early investigation, prior to standardization of dosage

Dosage

Although the oral dose of niacin may be as high as 300 to 500 mg daily, the average parenteral dose has varied from 40 to 80 mg However, Kurtz *et al* advocated an initial intravenous infusion of 200 cc of 0 05 per cent solution or 100 mg of niacin [9] As the effects decreased or tolerance developed, the strength of concentration was increased to 0 1 per cent A slow drip given over a period of one to three hours was required

The strength of niacin used in this investigation was 0 03 per cent (300 mg niacin dissolved in 1,000 cc of isotonic saline solution) To the niacin solution thus prepared, 1 Gm of procaine hydrochloride and 1 Gm of vitamin C (sodium ascorbate) was added Each cubic centimeter of solution then contained 0 3 mg of niacin, 1 mg of procaine, and 1 mg of vitamin C The prepared solution was administered over a period of twenty minutes by means of a "Flowrator" incorporated into an intravenous infusion setup The "procaine unit" was used to calculate the amount of procaine hydrochloride to be administered, for example, a 70-Kg man would receive 280 mg of procaine and vitamin C and 84 mg of niacin dissolved in 280 cc of isotonic saline in twenty minutes [1]

* Niacin used was the product "Nicamin" generously donated by the Abbott Laboratories.

Clinical Data

All patients developed flushing and a sensation of increased warmth which began in the face and descended down the chest, trunk, and extremities No adverse reactions during the course of the infusion could be detected, and only one patient complained of nausea three hours after the infusion Repetition of the infusion in this case produced the same complaint, although subsequent infusions with only procaine hydrochloride had no similar disturbing side-effects

The types of cases, number of patients, and number of infusions given in each category are listed in Table 1

TABLE 1 —CLINICAL DATA

Classification	Number of Cases	Number of Infusions
Traumatic	14	19
Herniated intervertebral disk	1	2
Fracture	6	6
Arthralgia	4	5
Causalgia	1	1
Myofasciitis	3	5
Degenerative Diseases	18	48
Osteoarthritis	18	48
Inflammatory	7	37
Rheumatoid arthritis	5	34
Neuritides	1	2
Peripheral vascular disease	1	1
Miscellaneous	8	38
Paralysis agitans	4	20
Congenital spastics	4	18
Total	47	142

Traumatic —The analgetic effect of niacin-procaine hydrochloride administered intravenously was little or no different from that obtained by the use of procaine alone, namely, relief of pain [2]

One case of fracture not included in this series was given niacin alone An interesting phenomenon was noted The niacin flush distal to the site of fracture was much less than the flush noted on the opposite extremity, indicative of vasospasm When procaine hydrochloride was administered, the flush increased in intensity

Inflammatory and Degenerative Diseases —The arthritides seemed to benefit more by the combined therapy as evinced by greater relief of pain, increased mobility, and an improved sense of well-being

Miscellaneous —In this group, the case of paralysis agitans showed greater relaxation from

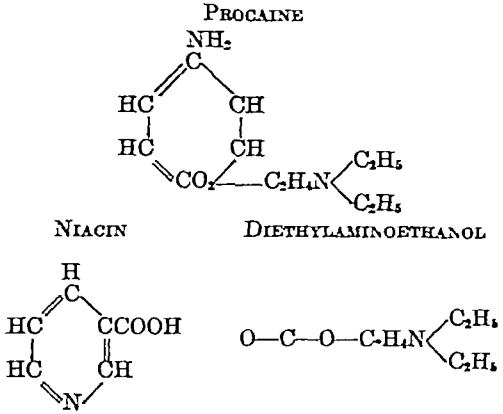


FIG 1 Comparison of chemical structures of procaine, niacin, and diethylaminoethanol

niacin-procain hydrochloride than from procaine alone The congenital spastics, however, found little or no difference

Discussion

The site of vasodilator effect of niacin has been a matter of controversy, but there is uniformity of opinion that the capillary is primarily involved Observation in the one case of fracture suggests that the action of niacin is depressed in the presence of arterial spasm Smith *et al* has demonstrated that in acute poliomyelitis vasospasm is a predominant factor He has found that when these cases are given niacin, little or no change is found in the affected extremities as compared to apparently normal extremities [11]

Comparison of niacin and procaine structurally suggested that a combination of niacin and diethylaminoethanol might prove beneficial (Fig 1) Five-tenths gram of niacin and diethylaminoethanol each were added to 1,000 cc of isotonic saline Six patients given this solution showed no effect except for flushing Analgesia was not found [12]

Conclusion

1 Niacin in combination with procaine hydrochloride may be administered intravenously

2 In the arthritides there is a suggestion of increased benefit Further observations are warranted

3 The use of niacin and procaine hydrochloride in the diagnosis of vasospasm is worthy of further clinical investigation

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TIME WAS—

In looking through some old Albany newspapers of the year 1798 I ran across this advertisement emblazoned on the front page with the doctor's name in Capitals at the top

DOCTOR ROBINSON

Lately from the Spanish dominions who has travelled through most parts of Europe and All the West Indies, has rented part of Mr Henry Henderson's house in Pine Street, three doors above the Roman chapel

He cures the Dropsy, Palsy, Flux and Disorders of the Eyes, White Swellings, Ulcers, Burns, Old Sores of ever so long standing, Cancers, Worms, Warts, Kings Evils, bites of poisonous animals and insects, Fever and Ague, blind and bleeding Piles, Gravel and Stone, Jaundice and Venereal Diseases of ever so long standing

Those persons who are afflicted with such disorders and please to apply to him shall have every attention paid to them in his power Dr Robinson flatters himself that what he advertises he is capable of performing

He has pills for sale They cure pains in the Head, Breast, Cholic, Nervous Diseases, restore lost appetite and are valuable for women that are pregnant.

He likewise sets Teeth.—*Contributed by John Hall Blackburn, Albany, New York*

CARDIAC NEUROSIS

ROBERT SEIDENBERG, M D , Syracuse, New York

(From the Department of Psychiatry, Syracuse University College of Medicine)

THE heart as an organ holds a place of importance to the human race second to no other—perhaps, because it is the only organ which so easily makes its presence felt It pulsates, has rhythm, and changes pace in reaction to environmental situations It is constantly active and is often regarded as something alive within our own body, the movements of which are easily detectable by the person in which it resides And the individual soon learns that if the heart does not live, neither does he No other organ of the body has a comparable position in the human mind The liver, the kidneys, equally vital organs, make themselves felt only in severe dysfunction.

Our language reflects the importance of the heart in everyday living We speak of "the heart of the matter" The most important area is referred to as "the heart of the city" An acute observer is said to have his hand on "the pulse of the nation."

Likewise, in language we move the heart around the body with great agility according to our mood. So, "the heart is in the mouth" when we are fearful, "in our boots" when depressed. We are light hearted or heavy hearted To show sincerity, it comes "from the heart" It is needless to cite the examples relating the heart to love and romance A recent popular ballad becomes very psychiatric in its words, "my heart will lose its mind" if the lover becomes unkind

It is, therefore, not at all surprising that the heart becomes the bank of choice in which the neurotic invests his emotional energy And it must be remembered that the candidate for a neurotic disorder referable to the heart is primarily a neurotic Therefore, the term cardiac neurosis is, in a large sense, a misnomer The neurosis is a disorder of the personality, not the heart The cardiac neurotic (using the term with the above qualifications) is a large problem in the practice of medicine Cardiologists of prominence tell us that a great share of their time is spent in telling patients that there is nothing wrong with their hearts

On the other hand, many lay the blame for the neurosis on the medical profession. Lewis speaks of iatrogenous causes of cardiac neurosis, i.e , inept medical examinations and careless suggestions and gestures on the part of the physicians [1] Of course, the inept examination cannot be condoned in any situation, but it is not entirely fair to put the blame on the already overblamed medical profession. The physician may be the innocent accomplice who left the bell of the stethoscope on the precordium a few seconds too long or unwittingly mentioned the murmur which no one should worry about Yet, a knowledge of the personality of the individual who comes with heart complaints can facilitate the diagnosis and prevent further fixation on an already overburdened organ.

The personality of the cardiac neurotic differs from that of the patient with organic heart disease as studied by Dunbar [2] The latter group will not be the concern of this paper Elucidation of the purely emotional disorders will be discussed Study of personality becomes doubly important in differential diagnosis, since, as found by Caughey, functional (emotional) and organic disorders of the heart have similar symptomatology [3] The cardiac neurotic usually exposed to cardiac symptoms in the family learns well

It becomes apparent to the practitioner exposed to this problem that the cardiac neurotic's interests gradually narrow down to his own body, to the exclusion of almost everything else If we may speak of narcissism, the cardiac neurotic in self-love is surpassed by no character in Greek mythology No cardiac or vascular irregularity, change in color, pain, or discomfort goes unnoticed. The palpitation against the mattress at night is often calamitous Nothing is lifted with the left arm for fear of putting strain on the heart The patient must not sleep of his left side for fear of doing damage Light household tasks must be delegated to other members of the family in order to prevent exertion. Noises must be eliminated because of their excitatory effect. The whole life of the individual and the household surrounding him must be regulated, literally to the beat of the heart The phenomenon of what the author calls the cardiac paradox is also present That is, events and circumstances which are pleasureful (for the patient) cause no discomfort, whereas distasteful or boring situations never fail to produce deleterious effects. Other paradoxic situations will be noted in the following case presentation

Case Report

The writer has under treatment an individual who exemplifies these character and neurotic traits

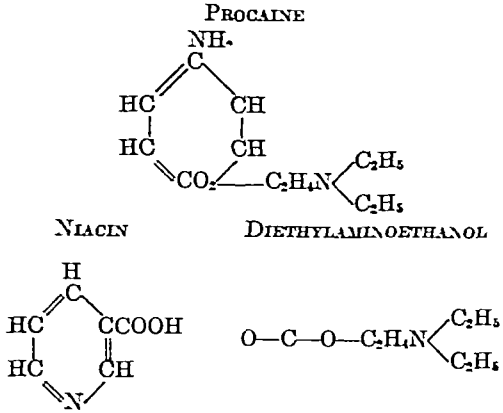


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Discussion

The site of vasodilator effect of niacin has been a matter of controversy, but there is uniformity of opinion that the capillary is primarily involved Observation in the one case of fracture suggests that the action of niacin is depressed in the presence of arterial spasm Smith *et al* has demonstrated that in acute poliomyelitis vasospasm is a predominant factor He has found that when these cases are given niacin, little or no change is found in the affected extremities as compared to apparently normal extremities [11]

Comparison of niacin and procaine structurally suggested that a combination of niacin and diethylaminoethanol might prove beneficial (Fig 1) Five-tenths gram of niacin and diethylaminoethanol each were added to 1,000 cc of isotonic saline Six patients given this solution showed no effect except for flushing Analgesia was not found [12]

Conclusion

1 Niacin in combination with procaine hydrochloride may be administered intravenously

2 In the arthritides there is a suggestion of increased benefit Further observations are warranted

3 The use of niacin and procaine hydrochloride in the diagnosis of vasospasm is worthy of further clinical investigation

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TIME WAS—

In looking through some old Albany newspapers of the year 1798 I ran across this advertisement emblazoned on the front page with the doctor's name in Capitals at the top

DOCTOR ROBINSON

Lately from the Spanish dominions who has travelled through most parts of Europe and All the West Indies, has rented part of Mr Henry Henderson's house in Pine Street, three doors above the Roman chapel

He cures the Dropsy, Palsy, Flux and Disorders of the Eyes, White Swellings, Ulcers, Burns, Old Sores of ever so long standing, Cancers, Worms, Warts, Kings Evils, bites of poisonous animals and insects, Fever and Ague, blind and bleeding Piles, Gravel and Stone, Jaundice and Venereal Diseases of ever so long standing

Those persons who are afflicted with such disorders and please to apply to him shall have every attention paid to them in his power Dr Robinson flatters himself that what he advertises he is capable of performing

He has pills for sale They cure pains in the Head, Breast, Cholic, Nervous Diseases, restore lost appetite and are valuable for women that are pregnant.

He likewise sets Teeth.—*Contributed by John Hall Blackburn, Albany, New York*

CARDIAC NEUROSIS

ROBERT SEIDENBERG, M D , Syracuse, New York

(From the Department of Psychiatry, Syracuse University College of Medicine)

THE heart as an organ holds a place of importance to the human race second to no other—perhaps, because it is the only organ which so easily makes its presence felt It pulsates, has rhythm, and changes pace in reaction to environmental situations It is constantly active and is often regarded as something alive within our own body, the movements of which are easily detectable by the person in which it resides And the individual soon learns that if the heart does not live, neither does he No other organ of the body has a comparable position in the human mind The liver, the kidneys, equally vital organs, make themselves felt only in severe dysfunction.

Our language reflects the importance of the heart in everyday living We speak of "the heart of the matter" The most important area is referred to as "the heart of the city" An acute observer is said to have his hand on "the pulse of the nation"

Likewise, in language we move the heart around the body with great agility according to our mood So, "the heart is in the mouth" when we are fearful, "in our boots" when depressed We are light hearted or heavy hearted To show sincerity, it comes "from the heart" It is needless to cite the examples relating the heart to love and romance A recent popular ballad becomes very psychiatric in its words, "my heart will lose its mind" if the lover becomes unkind

It is, therefore, not at all surprising that the heart becomes the bank of choice in which the neurotic invests his emotional energy And it must be remembered that the candidate for a neurotic disorder referable to the heart is primarily a neurotic Therefore, the term cardiac neurosis is, in a large sense, a misnomer The neurosis is a disorder of the personality, not the heart The cardiac neurotic (using the term with the above qualifications) is a large problem in the practice of medicine Cardiologists of prominence tell us that a great share of their time is spent in telling patients that there is nothing wrong with their hearts

On the other hand, many lay the blame for the neurosis on the medical profession. Lewis speaks of iatrogenous causes of cardiac neurosis, i e, inept medical examinations and careless suggestions and gestures on the part of the physicians [1] Of course, the inept examination cannot be condoned in any situation, but it is not entirely fair to put the blame on the already overblamed medical profession The physician may be the innocent accomplice who left the bell of the stethoscope on the precordium a few seconds too long or unwittingly mentioned the murmur which no one should worry about Yet, a knowledge of the personality of the individual who comes with heart complaints can facilitate the diagnosis and prevent further fixation on an already overburdened organ.

The personality of the cardiac neurotic differs from that of the patient with organic heart disease as studied by Dunbar [2] The latter group will not be the concern of this paper Elucidation of the purely emotional disorders will be discussed Study of personality becomes doubly important in differential diagnosis, since, as found by Caughey, functional (emotional) and organic disorders of the heart have similar symptomatology [3] The cardiac neurotic usually exposed to cardiac symptoms in the family learns well

It becomes apparent to the practitioner exposed to this problem that the cardiac neurotic's interests gradually narrow down to his own body, to the exclusion of almost everything else If we may speak of narcissism, the cardiac neurotic in self-love is surpassed by no character in Greek mythology No cardiac or vascular irregularity, change in color, pain, or discomfort goes unnoticed The palpitation against the mattress at night is often calamitous Nothing is lifted with the left arm for fear of putting strain on the heart The patient must not sleep of his left side for fear of doing damage Light household tasks must be delegated to other members of the family in order to prevent exertion. Noises must be eliminated because of their excitatory effect The whole life of the individual and the household surrounding him must be regulated, literally to the beat of the heart The phenomenon of what the author calls the cardiac paradox is also present That is, events and circumstances which are pleasureful (for the patient) cause no discomfort, whereas distasteful or boring situations never fail to produce deleterious effects Other paradoxic situations will be noted in the following case presentation

Case Report

The writer has under treatment an individual who exemplifies these character and neurotic traits

He is a married, twenty-nine-year-old World War II veteran (not service-connected) who was referred for psychotherapy because of pain in the left chest, palpitations, and shortness of breath of three years' duration Repeated extensive cardiac examinations, including electrocardiography, revealed no abnormality Reassurance given by prominent physicians gave only temporary comfort The patient was convinced that he had a severe heart disorder which would shortly lead to his death

Psychiatric examination revealed many neuropathic traits in his childhood His father, an alcoholic, served as a severe disrupting factor in the family In spite of the father's cruelty to the wife and children, the son in question was particularly close to the father He often found himself in the position of defending the father against the mother and other children When the son was twenty-one, the father died of an acute heart attack just one day after a physical examination which gave him a clean bill of health After this sudden death, the son had episodes of anxiety but not of an incapacitating nature That year he was drafted into the Army and made a fair adjustment

His cardiac symptomatology came after a physical examination prior to possible transfer to officer's training school During the examination, the medical officer appeared to linger on the cardiac area, whispered to a colleague, and then rejected the candidate for O C S training It was at this point the patient first suspected that it must be heart trouble

The patient was discharged on points in 1945 By this time, symptoms were becoming well established with fear of impending death. He made the rounds of local physicians and, as mentioned above, gained only temporary relief from reassurance, seeming somewhat disappointed and apprehensive with the "clean bill of health" given him Death was most certainly imminent He could recall the conditions of his father's untimely death Nightly, he perused the medical column of the newspaper as assiduously as he read the obituary column wherein could be found many instances of cardiac deaths in young people

As he presented himself for psychiatric treatment, the cardiac paradox was evident He would do no lifting on his job, yet he would bowl an entire evening with his team, averaging 160, with no ill-effects In the company of his friends, he suffered no symptoms, in tedious or boring conversation, he suffered cardiac pain He feared that he might die young, yet when attending a funeral, he phantasized his wife in the coffin. And to top it all, instead of expressing concern about provision for his family after his certain demise, he instead worried how he would manage with his illness if his wife and child were to die!

The ramifications and corollaries to the mechanism of identification with the father who died of heart disease need not be explained here Suffice it to say that a neurotic individual became a cardiac neurotic as a result of an unresolved conflict. His symptoms are not those of conversion hysteria but are more in the nature of an obsession with the concomitant flowering of narcissism. The world and the people in it (including well-meaning physicians) became pawns in the unquenchable desire to succor the body

Discussion

A survey of the personality of such a patient will help the practitioner make a diagnosis without extensive physical investigation and will likewise be of great aid in management Slight fluctuations in blood pressure, extrasystoles, and the grade one murmur are meat for the neurotic The physician often feels that it is his duty to report to the patient each such change, otherwise, his acumen might be questioned when the "abnormality" is dramatically discovered by another physician This reasoning is, of course, fallacious By so doing, the overscrupulous physician unwittingly plays into the hands of the neurotic, for now he has given the patient a thread of substantiation, even though the physician has reassured him that the murmur or extrasystole "is nothing to worry about"

The danger of further introjection of psychic energy into the soma is great In these cases, repeated physical treatment and examinations are not only ineffectual but are definitely harmful Psychotherapy, although not curative in many cases, may enable the patient to gain insight into the illness of his personality and prevent further regression

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BIRTHS REMAIN HIGH IN 1948

The second largest number of births in the history of this country occurred during 1948, according to the National Office of Vital Statistics of the Public Health Service The number of live births registered during 1948 was estimated at 3,559,000 or only about 4 per cent below the all-time high of 3,699,940 for 1947 Of even greater significance are the figures which take into consideration the unregistered births The total number of births (registered and unregistered combined) was estimated at 3,715,000 for 1948 and 3,876,000 for 1947 Only eight years earlier, in 1940, the last prewar year, the figure was little more than 2½ million (2,558,000)

The 1948 estimated birth rate of 24 4 per 1,000 population was about 5 per cent below the final rate of 25 8 for 1947, but exceeded the 1946 rate (23 3) by almost 5 per cent (These rates and all other figures which follow are based on registered births.) In New York State there were 323,250 live births in 1947 as compared to 196,088 in 1940, an increase of 56 2 per cent per 1,000 population

A GASTROSTOMY TECHNIC ADAPTED TO THE CONTRACTED STOMACH

SAMUEL LEO, M D , F A C S , New York City

(From the New York City Cancer Institute)

THE purpose of this paper is to present briefly an improved method of tubovalvular gastrostomy adapted to the contracted stomach. A more comprehensive report will be made at a later date

In the Gastro-Intestinal Division of the Surgical Service of the New York City Cancer Institute, where gastrostomies are frequently performed, the need for a more satisfactory technic has been recognized. Patients with carcinoma of the esophagus in an advanced stage are transferred here from the many hospitals of greater New York The nutrition of these patients is extremely poor, and in some of them the esophageal lesion has progressed to the point of complete obstruction The problem of feeding these patients is a serious one, especially where the limits of parenteral feeding have been reached In order to maintain life, an immediate gastrostomy becomes imperative

At operation, we find a stomach contracted in all its axes, particularly in the transverse This narrowing in the transverse axis compels us to abandon procedures such as Stamm, Witzel DePage, Janeway, and modifications thereof, which utilized only the anterior surface of the stomach Because the diminished surface of the anterior gastric wall does not lend itself to the performance of a satisfactory gastrostomy, the foregoing methods were inadequate Methods employing both the anterior and posterior gastric walls, such as Beck-Carrel described in 1905 and Jianu described in 1912, were likewise inadequate because of the diminution in both the transverse and longitudinal axes

As the progress which resulted in the present technic of esophagectomy and esophagogastrostomy was made in the various clinics, certain fundamental facts became evident

1 That it is necessary to sever the attachments of the lesser and greater curvatures of the stomach from its ligaments in order to obtain mobilization With the division of these ligaments, the circulation to the stomach had to be interrupted, thus reducing the normal blood supply to the stomach.

2 That when the inferior thyroid and right gastric arteries are preserved in this type of surgery, other vessels to the esophagus and stomach may be sacrificed with no adverse effect on the nutrition of these two organs

The technic described below has been clinically tested and represents a procedure having as its basis the knowledge thus acquired. A segment of the greater curvature of the stomach is completely liberated, making available both the anterior and posterior walls of the stomach for the creation of a plastic, mucus-lined tube When completed, a "valve" is formed which prevents the escape of gastric contents on the surface of the abdomen Thus, the following objectives are achieved (1) the prevention of local tissue damage, (2) the diminution of secondary infection, and (3) the conservation of fluid and nutriment so vital to these malnourished patients

Technic

Through a left upper midrectus incision, a segment of the greater curvature is liberated by dividing the gastrocolic ligament between clamps (Figs 1, 2) The tissue in each clamp is suture ligatured with number 0 plain catgut

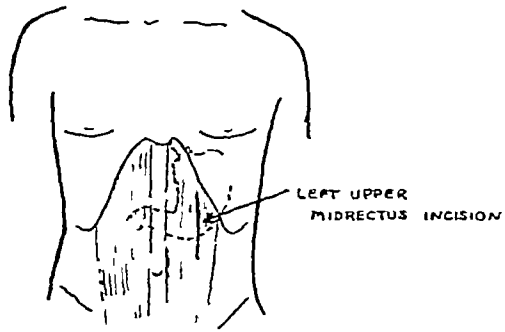


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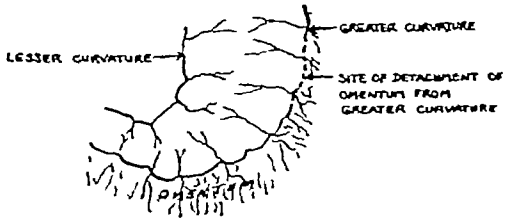


FIG 2 Site of detaching omentum from stomach.

Presented at a meeting of the Bronx Surgical Society November 22 1948

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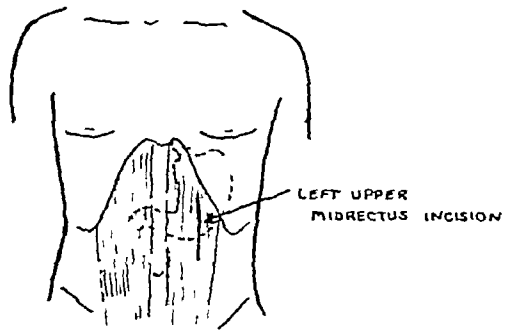


FIG 1 Site of incision

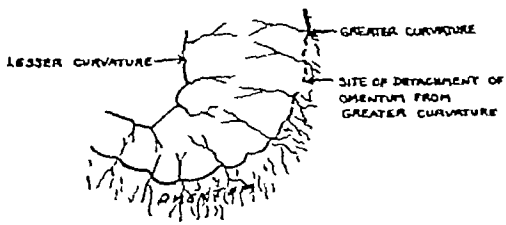


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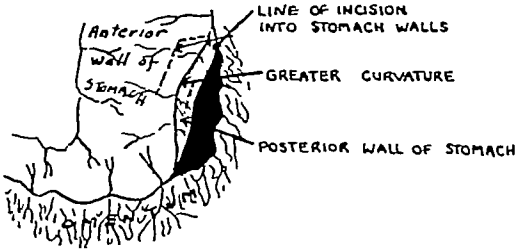


FIG 3 Greater curvature separated from the omentum—L-shaped incision into both walls.

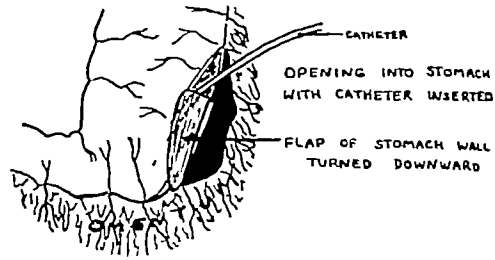


FIG 4 Opening into stomach at greater curvature with catheter inserted and flap turned down.

The length of the greater curvature so liberated should be 6 5 cm or greater, depending on the desired length of the gastric tube to be created This length will vary with the thickness of the abdominal wall through which the tube is to pass Attention is here directed to the necessity of identifying and preserving the middle colic artery

The stomach is then delivered An incision is made in the transverse axis from the proximal end of the liberated greater curvature, cutting through both the anterior and posterior walls, a distance of 2 5 cm The incision is further extended at right angles distally in the longitudinal axis, through the anterior and posterior walls of the stomach to the level of the distal limit of the liberated greater curvature When complete, the incision on the anterior gastric surface will resemble an inverted "L" (Fig 3) At this stage, the portion of the stomach to be used for the construction of the tube measures 5 cm in its transverse axis, of which 2 5 cm represents the anterior surface and 2 5 cm the posterior surface The long axis measures 6 5 cm The distally placed base is the only attachment to the body of the stomach

Hemostasis is obtained by carefully ligating the vessels in the gastric wall with fine plain catgut The stomach is emptied of its contents by suction and sponge swabs No intestinal clamps are used

The mucosa is approximated, starting at the midpoint of the proximal end, with a continuous atraumatic catgut suture, locking every other stitch until the base of the flap is reached. The suture is then continued in the same direction, approximating the sides of the flap, thus forming a tube into the opening of which a number 18 French catheter may be readily inserted (Figs. 4, 5) In a similar fashion, the serosa is approximated with a continuous linen suture, locking every other stitch (Fig 6) The catheter is now inserted through the tube into the stomach

The freed gastrocolic ligament is reattached to the newly formed greater curvature with interrupted plain number 0 catgut

The gastric tube is now brought to the upper angle of the incision and is fixed by suturing the parietal peritoneum to the gastric serosa adjacent to the base of the newly created tube. Interrupted atraumatic chromic catgut sutures are used

The peritoneum is closed with interrupted number 0 chromic catgut, the muscle with number 0 plain catgut, and the skin with number 00 silk The protruding gastric tube, measuring 1 cm, is protected with vaseline gauze The wound is dressed with dry gauze

Tables 1 and 2 show the postoperative dietary routine

Comment

With this procedure complete, we have created a plastic, mucus-lined tube to which both the anterior and posterior surfaces of the stomach

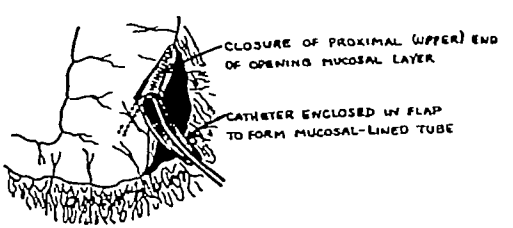


FIG 5 Closure of opening in stomach and flap to form mucosal-lined tube

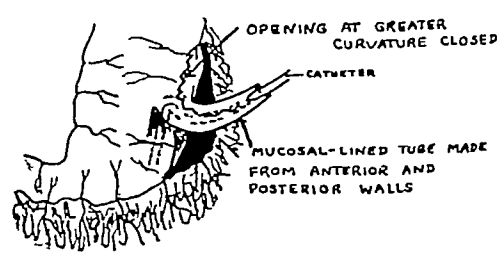


FIG 6 Closure completed with serosal suture with catheter in tube and stomach.

TABLE 1.—POSTOPERATIVE DIETARY ROUTINE*

First day
500 cc whole blood transfusion
1 000 cc. parenamine infusion
1,000 cc 5% glucose in saline—infusion
500 cc glucose in distilled water—infusion

Second day
Same as first day Omit blood

Third day
1,500 cc. 5% glucose in saline—infusion
1,000 cc. albumin water—tube feeding
Vitamins—same as first day

Fourth day
Dilute orange juice—1 part in 5 parts water—total 500 cc
1 000 cc albumin water
250 cc beer
Milk—1 part water to 3 parts milk—total 1 500 cc
Vitamins—same as first day

Fifth day
Orange juice—see above
Beer—500 cc.
Milk—in form of eggnog—250 cc
Albumin water—1 000 cc.
Vitamins—same as first day

Sixth day
1/2 of formula (see Table 2)
1 500 cc albumin water
500 cc. beer
Vitamins—same as first day

Seventh day
1/2 of formula (see Table 2)
500 cc. beer—divided into noon and evening feedings
Vitamins—same as first day

Eighth day
1/2 of formula (see Table 2)
500 cc beer—divided into noon and evening feedings
Vitamins—same as first day

Ninth day
Full formula—divided into 3 feedings (morning, noon, and evening)—given by drip method through tube
Beer—500 cc —divided into noon and evening feedings
Vitamins—same as first day

Adjuncts to diet**
Vitamin B nicotinic acid—25 mg.
Riboflavin—5 mg
Thiamin chloride—15 mg
Vitamin C—100 mg.

* Formulated with the cooperation of Miss Julia Coluzzi dietitian, New York City Cancer Institute

** Vitamins administered parentally until tube alimentation is completely established on the ninth day

have contributed This tube protrudes 1 cm beyond the surface of the abdominal incision. The previously intubated catheter may be dispensed with at the end of about ten days The gravity method of feeding is then continued by direct introduction of the food into the gastric tube

The physiologic advantages of this operation are (1) an undisturbed gastrointestinal continuity, (2) a tube in a position suggesting the side arm of a Chapman Water Pump, and (3) an intestinal peristaltic gradient which tends to create a negative pressure in the tube Hence, any fluid reposing in or introduced into this newly created tube would be drawn into the stomach by suction

Summary

The need for a tubovalvular gastrostomy adapted to the contracted stomach has long been felt As has been noted, existing methods to date have not been suitable With the advances made in esophageal and gastric surgery, we have learned that liberation of the greater curvature of the stomach from the gastrocolic ligament and its blood supply was feasible and safe This fact served as the basis for the technic described, which resulted in the formation of a mucus-lined tube with the following advantages (1) prevention of leakage, (2) diminution in the incidence of infection, and (3) conservation of vital fluids and nutriment

TABLE 2.—FORMULA FOR GASTROSTOMY AND JEJUNOSTOMY FEEDINGS

Food	Amount	CHO	Protein	Fat	Calories
Orange juice	2 1/4 cups	60 5	3		254
Sugar	1/2 cup plus 1 tbsp	120			480
Eggnog					
Cream 32%	150 Gm.	6	3	48	468
Eggs	2 only		12	12	156
Sugar	1 tbsp	15			60
Essenamine	2 tbsp		16		64
Milk	2 cups	23 6	16 8	18 8	332
Cream 32%	150 Gm.	6	3	48	468
Grape juice	1 cup	44 4	1		182
Cream Soup					
Butter	30 Gm.			25 50	229 5
Pea puree	4 tbsp				34
Flour	2 tbsp.	14	1 7		56
Cream 32%	150 Gm.	6	3	48	468
Essenamine	4 tbsp		32		128
Cal-e-tose	3 tbsp				123
Beer	204 Gm.	4 4	0 6		48
Lemon juice	1/4 cup	5	1		24
Eggs	2 only		12	12	156
Essenamine	2 tbsp		16		64
Ginger ale	1-8 oz. bottle	24	2 4		106
Gruel					
Oatmeal	50 Gm.	22	4 6	2 4	128
Cream 32%	150 Gm.	6	3	48	468
Milk	2 cups	23 6	16 8	18 8	332
Totals				Adjuncts to the Diet	
Carbohydrates		380 5		Vitamin B nicotinic acid—25 mg.	
Proteins		147 9		Riboflavin—5 mg.	
Fats		281 5		Thiamin chloride—15 mg	
Calories		4647 1		Vitamin C—100 mg	

Case Reports

SUBEPICRANIAL HYDROMA (FALSE MENINGOCELE)

NATHANIEL H SOLOMON, M D , Forest Hills, New York

(*From the Department of Pediatrics, Beth Israel Hospital*)

THE ESCAPE of cerebrospinal fluid through the ear or nose complicating skull fractures is fairly common, and its significance is usually recognized Less frequent and rarely reported is the accumulation of cerebrospinal fluid beneath the scalp aponeurosis seeping from the subarachnoid space through torn meninges and fractured skull

Since the first report by Billroth, there have been about eighty publications, mostly individual case studies, describing this condition [1,2] That this phenomenon may not be so rare as the paucity of literature on this subject seems to indicate was suggested by Bozsan and Brennan who observed 29 such cases in a ten-year period at two New York City hospitals [3] They believe that the escape of spinal fluid occurs more frequently and that cases are either overlooked or are erroneously diagnosed as "hematoma of the scalp "

Most of the cases observed heretofore (and the case to be reported) occurred in children and followed a blunt injury to the head Since children are usually first seen by the family physician or pediatrician, it is hoped that this case report will lead to increased recognition and proper treatment of this condition

Case Report

N T , a two-and-one-half-year-old girl, fell down a flight of stairs at approximately 4 00 P M on December 30, 1947 Her grandmother, who witnessed the accident, stated that the child's head struck the side of a metal chair at the foot of the stairs The child appeared pale and cried loudly She did not lose consciousness A local physician, who examined the child at this time, told the parents that the injury was superficial and prescribed bed rest

Five hours after the injury a temperature of 104 F was noted The next morning the child was first seen by this observer The child had slept quietly There were no convulsions, delerium, drowsiness, or vomiting She complained of pain in the abdomen and head Temperature at this time was 102 F

Past history was as follows At one year of age congenital dislocation of hips was diagnosed, and the child was treated for the following year by means of plaster cast and braces The child also had frequent diarrheal episodes from about three months to about eighteen months of age

Physical examination revealed an acutely ill child with flushed face and good color She was alert and keenly aware of her environment No twitchings or tremors were noted. Pharynx and tonsils were injected Right catarrhal otitis media was present. Lungs were clear Pulse rate was 100 No cardiac enlargement or murmurs were noted. Abdomen was slightly distended, no masses, tenderness, or rigidity were noted There was no dullness on percussion of the flanks Extremities were not remarkable

Neurologic examination showed the pupils to be round, equal, and reacting well to light and accommodation Reflexes were equal and active throughout. No pathologic reflexes were noted Over the left parietal eminence there was a soft, fluctuant, somewhat tender swelling about 3 inches (7 5 cm.) in diameter, and about 1 inch (2 5 cm) in depth There was no discoloration of the scalp

Penicillin in oil and wax (200,000 units intramuscularly) was administered, followed by oral penicillin, 50,000 units every four hours Neosynephrine nose drops, 1/4 per cent, were also prescribed In the following three days the child seemed to improve on this regime The temperature fluctuated between 100 and 101 F The abdominal and head pain receded The child ate well and appeared cheerful and bright

On the morning of January 3, 1948, the child developed marked swelling of the left upper and lower eyelids Examination at this time revealed that the previously noted scalp swelling now extended over the entire left side of the scalp The left side of the forehead was enlarged when compared with the right side The eyeball was neither injected nor proptosed, and the lid swelling was continuous with the aforementioned scalp swelling Temperature was 102 F The signs of respiratory infection had receded Neurologic examination was unchanged except for an abnormal left plantar response

The child was then hospitalized at Beth Israel Hospital. X-ray of skull was interpreted by the x-ray department as showing "the grooves for the vessels to be quite deep, simulating a fracture, but no fracture was definitely demonstrated" (Fig 1) It may be said, however, that Dr Sidney W Gross, the neurosurgical consultant, interpreted the films as indicative of fracture He examined the patient and diagnosed the scalp swelling as escaped cerebrospinal fluid He advised continuance of the penicillin and further observation of the swelling with no aspiration of the scalp swelling

The blood count showed 4,230,000 red blood cells, 14,200 white blood cells, 11 Gm hemoglobin, with a normal differential count. Urine was negative

The next morning (five days after the injury), in addition to the previously noted swelling, the right eyelid was also swollen. However, from this point



FIG 1 X-ray of skull showing probable fracture line.

on, the swelling diminished On the next day the eyelids were no longer swollen, but the scalp swelling remained essentially unchanged for the remainder of her seven-day hospital stay (Fig 2) On the fourth hospital day the child developed diarrhea which responded quickly to dietary measures She was discharged on January 10 (twelve days after her injury) At home the scalp swelling receded quickly and disappeared completely on January 14 (sixteen days after her injury) When examined two months later, she showed no complications or sequelae

Anatomy and Nomenclature

The scalp swelling caused by the escape of cerebrospinal fluid through the torn meninges and fractured skull has heretofore been referred to as false or spurious meningocele This name is admittedly incorrect and somewhat misleading since the accumulation of cerebrospinal fluid is not lined by meninges, but rather by the musculofibrous layer of the scalp, the epicranius The latter "covers the whole of one side of the vertex of the skull and consists of two parts, the occipitalis and frontalis, connected by an intervening tendinous aponeurosis, the galea aponeurotica"[3]

Mayfield suggested the name of subgalial hydroma, but the escaped fluid accumulates not only under the galea aponeurotica, but also under the occipitalis and the frontalis[4] The fluid occupies the subepicranial space (between the pericranium and epicranius) The name subepicranial hydroma is, therefore, suggested for this condition

In children the dura mater very intimately approximates the skull Thus, if the latter is fractured, the dura is very apt to be torn also If, in addition, the arachnoid is also torn, then cerebrospinal fluid will escape extracranially

Clinical Characteristics

Subepicranial hydroma may appear immediately following the accident, or it may first be noted several days later In the latter event it is presumed that the channel from the subarachnoid space



FIG 2 Patient, N T, six days after injury, showing swelling of left side of scalp covered by normal skin

to the scalp is incomplete immediately following the accident and that either increased absorption in the region of the fracture or increased physical activity of the patient may effect an escape of cerebrospinal fluid into the scalp

The swelling usually increases slowly The skin overlying the swelling is unchanged and never undergoes any of the color changes associated with contusions The swelling is loosely fluctuant and has been aptly likened to a partly filled hot water bag It transilluminates well Palpation of the swelling is surprisingly painless

At the base of the swelling one can often palpate a circular rim which must be differentiated from a depressed fracture Subepicranial hydroma, once it starts to recede, disappears rapidly and is not followed by thickening or fixation of the scalp

X-ray demonstrates that the scalp swelling is smoothly outlined and is of even density throughout (Fig 3)

Diagnosis

The differential diagnosis from hematoma of the scalp can be summarized as follows

	Subepicranial Hydroma		Hematoma of Scalp
1	Skin over swelling normal	1	Edematous skin bruised or discolored
2	Loosely fluctuant	2	Crunching crepitus of coagulated blood
3	Painless	3	Painful
4	Disappears rapidly	4	Disappears slowly
5	Scalp remains normal	5	Scalp remains fixed for a considerable time
6	May appear days after injury	6	Is present soon after injury
7	X-ray Swelling is smoothly outlined and of even density	7	X-ray Swelling is of uneven density and is not well demarcated from surrounding skin

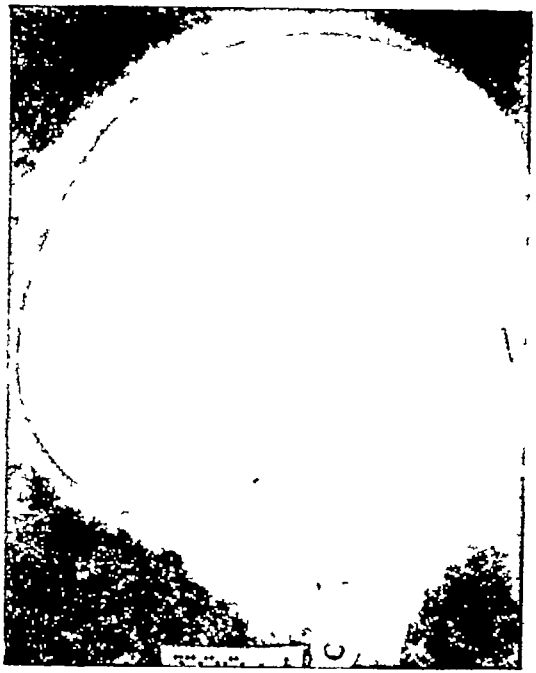


FIG 3 X-ray showing shadow of scalp swelling to be of even density

Treatment

There is almost unanimous agreement that aspiration of the subepicranial hydroma should not be performed either for diagnosis or treatment As previously stated, there are numerous clinical signs which make the diagnosis of this condition fairly certain Furthermore, the swelling subsides so rapidly and completely that a hastening of this process is unnecessary A puncture through intact scalp under sterile precautions may seem like an innocuous procedure, but the literature reveals several infections and resulting fatality as a consequence of aspiration [2] It seems wiser to resist the temptation to procure positive proof In certain unusual circumstances, as pointed out by Mayfield, where a child has a coincident infected scalp abrasion which the spreading subepicranial hydroma is fast approaching, aspiration through clean scalp would help prevent spread to the area of the infected abrasion [4]

Summary

1 A case of a fracture of the cranial vault with escape of cerebrospinal fluid into the scalp is reported

2 Subepicranial hydroma is suggested as an appropriate name for the scalp swelling

3 This condition occurs most frequently in children

4 The clinical characteristics of subepicranial hydroma are described, and the differential diagnosis from scalp hematoma is indicated

5 Routine aspiration of the fluid for either diagnosis or treatment is not recommended

62-65 SAUNDERS STREET

I wish to thank Dr Sidney W Gross and Dr Philip Cohen for their helpful suggestions in the preparation of this article

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TUBERCULOSIS PATIENTS INCREASE COSTS

Tuberculosis patients who leave hospitals against medical advice and before treatment is completed cost the City of New York more than $11,000,000 annually, or more than enough to build a 500-bed hospital each year, according to a statement issued by Dr Herbert R Edwards, executive director of the New York Tuberculosis and Health Association, 386 Fourth Avenue Dr Edwards said that this was based on the Drolet-Porter Report on an average year, 1947, when 2,373 tuberculosis patients in New York City hospitals, both public and private, left against medical advice and before their disease had been arrested He stressed that these "sign outs" are very likely to break down and be returned to the hospital in a much worsened condition "This means," he said, "that long and expensive treatment must be started all over again and very often with much less chance of success"

In addition, Dr Edwards went on, the report reveals that nearly half of the tuberculosis patients who "sign out" are open, infectious cases and thus are focal points for infection for members of their families and the community

Dr Edwards put the cost of caring for a tuberculosis patient at "a very conservative $7 50 per day per patient"—the amount paid by the City to private hospitals for such care On this basis, he said, the figure for the care of this "sign out" group alone reaches $6,531,682 50 per year This sum, he said, is arrived at by taking the average length of hospital stay, as shown by the study to be 367 days, a total for the group of 870,891 hospital days

UNUSUAL SITES OF ENDOMETRIOSIS

JOSEPH MANGIARDI, M.D., Brooklyn, New York

(From St John's Episcopal Hospital)

A REPORT of two rare manifestations of endometriosis is herewith submitted to add to the increasing literature on this interesting condition

Case Reports

Case 1—Miss D F, a twenty-one-year-old Negro woman, was admitted to the hospital on February 26, 1948, complaining of intermittent, painful swelling of the right groin for two months prior to admission The pain was not related to exertion, digestion, or menstruation (as far as could be determined) The swelling consisted of a walnut-sized mass just above the external inguinal ring, which would enlarge during painful episodes and subside during the asymptomatic intervals Exacerbations would last for one or two days and recur at two- to three-week intervals Menses were normal and regular with a twenty-nine day interval. The patient had no other complaint, and examination of past history was negative

Physical examination revealed a well-developed, well-nourished, young woman, not in acute distress A walnut-sized mass was palpable at the external inguinal ring on the right side There was a definite impulse on cough or straining, but the pain could not be reproduced The mass seemed cystic and was not reducible There were no other positive physical findings

The temperature, pulse, respirations, and blood pressure were normal on admission Routine blood count and analysis of the urine were within normal limits

The preoperative diagnosis was hydrocele of the canal of Nuck (right) and indirect right inguinal hernia.

On March 7, 1946, under spinal anesthesia, a right inguinal incision was made, exposing a cystic mass about 1 inch long in the canal of Nuck. This was dissected from the adjacent tissues and was found to be connected with a funicular process of peritoneum, which was still open, communicating with the abdominal cavity The mass and hernia were found lateral to the deep inferior epigastric vessels The sac and cord were both ligated and cut and were excised, together with the attached cystic mass The internal oblique and conjoined tendon were sutured to Poupart's ligament, and the external oblique aponeurosis was closed.

The specimen was examined and thought to be a hydrocele, but, unlike the usual variety, it was reddish-gray, granular, uneven, and resilient When cut, no fluid was liberated Cut surfaces were pink, gray, and red, quite granular and with golden-yellow, oily lobules scattered throughout

Microscopic report was as follows "Several of the particles contain irregular spaces lined by cuboidal and cylindric epithelial cells A few show gland and ductlike structures Lymphocytes and hemosiderin-laden macrophages are scattered through the surrounding connective tissues A few of the spaces contain erythrocytes and occasional hemosiderin-laden macrophages There are a few zones of fibrosis with follicular tissue and fibroblasts scattered throughout the interstices A membranous piece of tissue is composed of collagen fibers admixed with smooth muscle and lobules of adipose tissue It is lined with flattened epithelium on one aspect"

The diagnosis was hernial sac, endometriosis, and remnant of canal of Nuck.

Case 2—Mrs C K., a forty-year-old white woman, was admitted on April 1, 1946, because of irregular menses, metrorrhagia, menorrhagia, and nervousness of one year's duration Menses were often associated with the passage of large clots Symptoms of frequency of urination and a sense of weight in the pelvis were also noted during the month preceding admission The patient had never been pregnant She stated she had a "nervous breakdown" in 1943, also that her left tube and ovary were removed in 1936 for relief of left lower quadrant pain She had never had painful menstruation

Physical examination revealed a well-developed, well-nourished woman not in acute distress The uterus was slightly enlarged, irregular, and nodular No other physical abnormalities were found The blood count, urine, and blood pressure were normal. The impression of the admitting physician was fibroid uterus

Operation was performed on the day after admission Moderate pelvic adhesions were encountered. The left tube and ovary were absent The right ovary was enlarged and contained numerous follicular cysts Multiple subserosal nodules were found in the uterus A subtotal hysterectomy and right salpingo-oophorectomy were performed The uterus was separated from the bladder with difficulty, and, when removed, a lime-sized nodule was palpated in the posterior wall of the bladder No other pelvic pathology was discernible

The pathologic report was as follows "Fibromyomata uteri, endometrium in proliferative phase, follicular cysts of the ovary, segment of fallopian tube"

The patient's postoperative period was uneventful. She was discharged on the seventeenth postoperative day in good condition and without symptoms In view of the nodule in the bladder which was found at operation, cystoscopic examination was performed two weeks later At that time, a lime-sized tumor was visible through the cystoscope on the posterior bladder wall. It was ovoid, smooth, and entirely submucosal The overlying mucosa looked healthy and intact A tentative diagnosis of bladder wall tumor, probably benign, was made, and open operation was advised

The patient was readmitted on July 11, 1946, in good health and without symptoms On July 13, operation was again performed through a right paramedian incision and the bladder opened The tumor was easily visualized and, when palpated, seemed to lie entirely within the muscularis Wide excision was made, removing adjacent normal bladder wall, including a small area of the intraperitoneal portion of the bladder beneath the tumor The bladder was carefully closed with interrupted chromic sutures, passed through the outer coats, and an open-end mushroom catheter was used for drainage This was removed on the sixth postoperative day

Convalescence was rapid, and the patient was

discharged in good condition on the thirteenth postoperative day

Grossly, the tumor consisted of an irregular ovoid mass, the size of a lime, with irregular, reddish, and reddish-gray patches On section, the tissue was fleshlike in consistency, flecked with reddish-gray areas, and marked with white streaks Small collections of brown fluid were found throughout the specimen

Pathologic report revealed the following "The tissue was composed predominantly of smooth muscle bundles arranged in ramifying aggregations Small cysts, tortuous ducts, and glandlike structures are scattered through several areas The glands are lined by cuboidal and cylindric epithelium with rounded, ovoid nuclei, containing basophilic chromatin granules with acidophilic cytoplasm The smaller cysts have cuboidal and cylindric epithelium linings The larger cysts are lined by flattened, atrophic epithelium, portions of which are exfoliated Some of these cysts contain basophilic granular material Others contain granular acidophilic material, occasionally erythrocytes and macrophages The epithelial elements are isomorphic within the average range of variation Basal layers are clearly defined Scattered aggregations of polyblasts are evident in portions of the interstices In some foci, hemosiderin-laden macrophages are conspicuous. One such area is present near adipose and connective tissue which is evident near one margin"

The diagnosis was endometriosis of the bladder

The author wishes to express his appreciation to Drs. Albert Thung and Augustus Harris for permission to publish these interesting case reports and to Dr R Gettinger pathologist

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REGIONAL ENTERITIS

CARMEN RAZZANO, M D , Williston Park, New York

(From the Nassau Hospital)

THE FOLLOWING is a report of a case of regional enteritis which was treated with surgery

Case Report

A forty-three-year-old white man was admitted for the first time to the Nassau Hospital, June 2, 1946 Family history was noncontributory The patient had been treated for auricular fibrillation with digitalis in the past but had never undergone surgery

The present illness began forty-eight hours before admission with a sudden onset of severe epigastric pain, followed by two episodes of nausea and vomiting The patient felt weak and cold Because of his past history an electrocardiogram was done twenty-four hours before admission This was negative for coronary artery disease but did show auricular fibrillation In the next twenty-four hours the abdominal pain subsided but did not completely disappear, and the patient gradually developed abdominal distention. No history of dark or bloody stools was obtained Remaining systemic review was negative

Physical examination revealed a well-developed, well-nourished man of about the stated age appearing acutely ill. Lungs were negative Heart was fibrillating. The blood pressure was 140/90 The abdomen showed moderate distention of 1 plus, on a basis of 1 to 4, and definite localized tenderness and spasm to palpation just to left of the umbilicus in the left upper quadrant There was no evidence of hernia Rectal examination was negative. An enema on admission showed little return except for some blood-tinged fluid

Laboratory findings were as follows Urinalysis was negative White blood count, the day before admission, was 30,000, on the day of admission it was 12,900, with 92 per cent polymorphonuclears Hemoglobin was 80 per cent Flat plate of abdomen was negative Temperature was 102 F , pulse 110

On June 3, 1946, the day after admission, the abdomen was explored through a left lower pararectus incision There were about 300 cc of straw-colored fluid in the peritoneal cavity On further exploration about 18 inches of small bowel, starting 1 foot from the ileocecal valve, showed a red, beefy, thickened appearance with several oval, superficial ulcerations at the mesenteric border, ½ to 1 cm in size The mesentery to this segment was edematous and contained a number of enlarged nodes The abdomen was closed in layers without drainage

The postoperative course was uneventful. The patient received 40,000 units of penicillin every three hours and sulfadiazine 1 Gm every four hours for seven days. The patient was discharged on the twelfth postoperative day

On September 11, 1946, approximately two months after the first admission, the patient was readmitted to Nassau Hospital. Symptoms on this occasion consisted of recurrent attacks of abdominal pain for the preceding two weeks, cramplike, intermittent in character, and associated with nausea but no vomiting

Physical examination of the abdomen revealed slight generalized abdominal tenderness without spasm. The previous scar was well healed Upper gastrointestinal series showed stenosis of the small bowel.

The patient was prepared with intravenous therapy and Levine tube with suction The white blood count was 5,750 with 62 per cent polymorphonuclears and 95 per cent hemoglobin Total protein was 5 9 per cent On September 16, 1946, the abdomen was explored through a lower right pararectus incision On opening the peritoneum the stenotic bowel was found about 1 foot from the ileocecal valve Approximately 18 inches of small bowel was involved, the distal third of which was lead pipe in appearance while the proximal two thirds were distended and thickened. The serosal surface was rough and showed both fibrous and fibrinous adhesions. The mesenteric nodes were enlarged and deeply congested. The remaining small and large bowels were normal. Resection of the involved segment of bowel with a wide area of corresponding mesentery and glands was performed, followed by an end-to-end, closed, Parker-Kerr type anastamosis The wound was closed in layers without drainage

The postoperative course was smooth until the fifth postoperative day, when minimal bronchopneumonia developed in the left lung Prompt recovery followed the usual treatment of this condition The patient was discharged on the fourteenth postoperative day Subsequent follow-up, three weeks and two months after discharge, showed the patient to be well and carrying on his normal activities In July, 1948, almost two years postoperatively, the patient was seen and found to be free of recurrence or progression of his disease

Summary

1 Despite increasing reports in literature on regional enteritis, it is still an infrequent lesion, the cause of which remains obscure

2 The acute phase of this disease is usually mistaken for acute appendicitis In this case, a diagnosis of mesenteric thrombosis was entertained, in view of the cardiac status

3 Penicillin and sulfadiazine had no effect in arresting the progress of the disease in this patient A recent review of the literature reveals that the antibiotics are helpful in the acute phase of regional enteritis

4 The common site of regional enteritis is the terminal ileum with progression toward the cecum and the ascending colon. However, no part of the intestinal tract is immune

5 There is practically universal agreement in the literature on the treatment of the acute phase of regional enteritis, i e , conservative therapy following exploration and diagnosis

6 Finally, surgery is the only method of therapy in the chronic obstructive stage, with or without fistula and abscess formation

Special Article

SUGGESTED STUDIES OF POLIOMYELITIS

GILBERT DALLDORF, M D , Albany, New York

(From the Division of Laboratories and Research, New York State Department of Health)

THIS is an interim report to those members of the Medical Society of the State of New York who assisted us last summer in search for further cases of infection with the virus first recovered from two patients with clinical poliomyelitis in 1947 [1,2] The virus differs from the known strains of poliomyelitis virus in being pathogenic for suckling mice but not for rhesus monkeys, and in inducing, in mice, extensive degenerative lesions of the muscles rather than the motor neurons of the central nervous system The role of the agent in relation to poliomyelitis or a disease which only resembles poliomyelitis is not known, and last summer's work was undertaken to learn more about it

The 136 fecal specimens collected during 1948 which have now been examined have yielded ten isolations Three of these were from Broome County, two each from Chautauqua and Greene Counties, and one each from Saratoga, Westchester, and Jefferson Counties In view of the miscellaneous nature of many of the specimens, it seems unwise to draw conclusions from these results other than that infectious agents pathogenic for suckling mice were widely disseminated in New York State during the summer of 1948 Five of the ten strains isolated are apparently similar to the virus first described except for a difference in serologic type The remaining five strains appear to differ and are being studied

The facts we have gathered do not allow us to distinguish these patients' illnesses from poliomyelitis Fever, headache, and spinal rigidity were usually present Gastrointestinal symptoms such as anorexia, nausea, and vomiting were frequent, and sore throat was occasionally noted The upper respiratory and gastrointestinal symptoms often preceded the headache and stiffness of the spine One patient was frankly paralyzed and left the hospital in a wheel chair a month following admission Five others had transient weakness of arm, leg, or back muscles, which disappeared within a matter of hours or days A history of similar illness in other members of the family or contacts was obtained in five cases Cerebrospinal fluid was examined in seven, and all showed an increased number of cells In three, the total count amounted to 200 to 250 cells per cu mm

So far we have found no simpler method of establishing a precise diagnosis than the inoculation of animals, which is slow and tedious and probably not very efficient The existence of antigenically distinct strains promises that serologic diagnosis will also be complicated. Therefore, we have sought other procedures The muscle degeneration suggested a study of the creatine and potassium balances, and it has now been learned that these are greatly altered in the experimental disease Infected mice excrete large amounts of creatine in their urine The concentration rises shortly before the onset of paralysis and frequently amounts to 3 mg per ml of urine by the time signs of infection are manifest The creatine and potassium content of the muscles of paralyzed mice is sharply reduced.

For forty years loss of creatine has been known to occur in poliomyelitis, but attention seems to have been limited to the late atrophic stages which have been compared with various muscle dystrophies.[3-7] Yet Carey and others have reported histologic evidence of muscle necrosis in both early human and experimental monkey poliomyelitis.[8,9] We should not expect, therefore, that creatinuria will distinguish between infection by the classic strains of virus and the new agent unless there proves to be a difference in degree On the other hand, both potassium and creatine studies may provide very useful information The presence or absence of creatinuria in paralyzed patients proved to be infected with the suckling mouse agent would seem significant, and it may be that something can be learned of the pathogenesis of the transient paralyses which were common in 1948

We suggest that clinicians explore this problem and urge that fatal cases be investigated as completely as possible The histologic examination should include the paralyzed muscles For animal tests, suitable specimens should be collected from the affected muscles, the central nervous system, and intestinal contents Until morphologic observations of proved cases are available, the nosologic position of the disease will be uncertain Since the collection, storage, and shipment of specimens are of critical importance, physicians who wish to collaborate with us should write for detailed information regarding the methods to be followed Many laboratory directors are prepared to handle such specimens and health officers are frequently able to help

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DEPARTMENT OF MEDICAL CARE INSURANCE

CONDUCTED BY GEORGE P FARRELL, DIRECTOR

THE Third Annual Report on the six New York State voluntary nonprofit medical care insurance plans, approved by the Medical Society of the State of New York, shows continuous and notable progress during 1948

Membership —The increase in membership was 515,644, making the total membership as of December 31, 1948, 1,539,259 This represents the largest increase in membership in any year and exceeds 1947 by 90,071 members

Earned Premium Income.—The income earned on premiums received amounts to $9,299,668 which is an increase of $3,390,003 over the previous year, or 57 per cent

Benefit to members —Incurred benefits to members was $6,369,388, an increase of $2,687,833 over the previous year, or 73 per cent

Payments to Doctors —For discharged and completed claims, payments to doctors were in the amount of $6,017,004.

Surplus and Maternity Reserve —The total surplus as of December 31, 1948, amounted to $2,065,693, an increase of $596,298 over the previous year

Reserves for deferred maternity benefits as of December 31, 1948, amounted to $1,613,439, an increase of $615,594 over the previous year

A greater increase in membership can be anticipated during 1949 due to a better understanding by the profession and increased doctor participation in the plans, plus the increased appreciation on the part of the public of providing for medical care costs on a voluntary basis

The quarterly reports which have been submitted to the Bureau by the plans have made this report possible Additional information has been compiled from these reports and is available upon request.

TABLE 1 —COMPARATIVE MEMBERSHIP STATEMENT (SUBSCRIBERS AND DEPENDENTS)—DECEMBER 31 1947 AND 1948

Name of Plan and Location	1948	1947	Increase	Per Cent of Increase
New York				
United Medical Service, Inc.				
Subscribers	566 534	375 684	190 850	50 80
Dependents	562 433	354,609	207 824	58 60
Total	1 128 967	730,293	398 674	54 59
Buffalo				
Western New York Medical Plan				
Subscribers	62 793	47 018	15 775	33 55
Dependents	97 078	72 690	24 388	33 55
Total	159 871	119 708	40 163	33 55
Rochester				
Genesee Valley Medical Care				
Subscribers	29 131	19 202	9 929	51 70
Dependents	39 522	26 943	12 579	46 68
Total	68 653	46 145	22 508	48 77
Syracuse				
Central New York Medical Plan				
Subscribers	8 342	6 503	1 839	28 27
Dependents	11 764	8 819	2 945	33 39
Total	20 106	15 322	4 784	31 22
Utica				
Medical and Surgical Care				
Subscribers	52 674	43 973	8 601	19 55
Dependents	57 389	45 396	11 993	26 41
Total	109 963	89 369	20 594	23 04
Albany				
Northeastern New York Medical Service				
Subscribers	22 146	9 963	12 183	122 28
Dependents	29 493	12 815	16 738	130 61
Total	51 639	22 778	28 921	126 97
Grand Totals				
Subscribers	741 520	502 343	239 177	47 59
Dependents	797 739	521 272	276 467	53 03
Totals	1 539,259	1 023 615	515 644	50 37

TABLE 2.—Comparative Statement of Total Membership in Medical and Hospital Plans for Years Ending December 31 1947 and 1948

Location	1947 Membership	1947 Per Cent of Total	1948 Membership	1948 Per Cent of Total
New York				
Medical	730 293	18 5o	1 128 967	23 98
Hospital	3 206 178	81 45	3 618 891	76 02
Total	3 936 471	100 00	4 747 858	100 00
Buffalo				
Medical	119 708	21 18	1o9 871	24 94
Hospital	445 689	78 82	481 138	75 0
Total	565 397	100 00	641 009	100 00
Rochester				
Medical	46 145	12 06	68 653	16 38
Hospital	336 548	87 94	350 5o4	83 62
Total	382 693	100 00	419 207	100 00
Syracuse				
Medical	15 322	o 69	20 106	6 70
Hospital	2o3 507	94 31	279 638	93 30
Total	268 829	100 00	299 744	100 00
Utica				
Medical	89 369	37 83	109 963	41 11
Hospital	146 818	62 17	157 517	58 89
Total	236 187	100 00	267 480	100 00
Albany				
Medical	22 778	9 42	51 699	16 64
Hospital	218 927	90 58	258 924	83 36
Total	241 705	100 00	310 623	100 00
Totals				
Medical	1 023 61o	18 18	1 539 259	23 02
Hospital	4 607 667	81 82	5 146 662	76 98
Combined Totals	5 631 282	100 00	6 685 921	100 00

TABLE 3.—Comparative Statement of Membership Increase in Medical and Hospital Plans for Years Ending December 31 1947 and 1948

Location	1947 Membership Increase	1947 Per Cent of Total Increase	1948 Membership Increase	1948 Per Cent of Total Increase
New York				
Medical	325 001	43 78	398 674	49 13
Hospital	417 191	56 22	412 713	50 87
Total	742 192	100 00	811 387	100 00
Buffalo				
Medical	19 427	44 1o	40 163	o3 12
Hospital	24 574	55 85	35 449	46 88
Total	44 001	100 00	75 612	100 00
Rochester				
Medical	34,231	59 74	22 o08	61 64
Hospital	23 067	40 26	14,006	38 36
Total	57 298	100 00	36 514	100 00
Syracuse				
Medical	4 014	1o 14	4 784	1o 47
Hospital	22 486	84 86	2o 131	84 53
Total	26 o00	100 00	30 91 ›	100 00
Utica				
Medical	20 122	67 36	20 o94	6o 81
Hospital	9 750	32 64	10 699	34 19
Total	29 872	100 00	31 293	100 00
Albany				
Medical	22 778	38 31	28 921	41 96
Hospital	36 666	61 69	39 997	58 04
Total	o9 444	100 00	68 918	100 00
Totals				
Medical	425 o73	44 2o	o1o 644	48 49
Hospital	533 734	o5 75	o38 99o	51 51
Combined Totals	959 307	100 00	1 o5i 639	100 00

TABLE 4.—CLAIM DATA (PAID BASIS)

Location and Type of Contract	Earned Premium Income	Claims	Per Cent of Claim Cost to Earned Premium	Number of Claims	Average Cost per Claim	Claim Incidence per 1,000 Members per Annum
New York						
Surgical	$4 323 145	$3 064,050	70 88	49 726	$61 61	70 5
Surgical In-Hospital Medical	1 635 442	778 189	47 58	14,068	55 31	73 0
General Medical	643 862	325 012	50 47	25 199	12 89	666 1
Total	$6 602 449	$4 167 251	63 11	88 993	$46 82	
Buffalo						
Surgical	$ 711 292	$ 493 260	69 34	16 151	$30 54	140 6
Surgical In-Hospital Medical	268,341	169 249	63 07	7 520	22 50	342 1
Total	$ 979 633	$ 662 509	67 62	23 671	$27 98	
Syracuse						
Surgical	$ 20 679	$ 14 996	72 51	473	$31 70	155 5
Surgical, Medical	176 727	128 352	72 62	7 027	18 26	450 3
Total	$ 197 406	$ 143 348	72 61	7 500	$19 11	
Utica						
Surgical and Special Benefits	$ 681 494	$ 597 299	87 64	21 680	$27 55	211 6
Medical Call Rider	128 283	45 773	35 68	2 370	19 31	55 9
Total	$ 809 777	$ 643 072	79 41	24 050	$26 73	
Rochester						
Surgical	$ 368 545	$ 208 172	56 48	5 680	$36 65	99 2
Albany						
Surgical, In Hospital Medical	$ 325 577	$ 193 652	59 17	5 541	$34 76	135 7
Grand Total	$9 283 387	$6 017 004	64 81	155 435	$38 71	

NOTE New York does *not include* earned premium income on Medical Expense Fund of New York contracts.

TABLE 5.—COMPARATIVE STATEMENT OF NUMBER OF CLAIMS BY CONTRACT FOR YEARS ENDING DECEMBER 31 1947 AND 1948

Location	Surgical	Surgical and In Hospital Medical	Surgical, Medical (Home Office Hospital)	Medical Call Riders	Total Claims
New York					
1948	49 726	14 068	25 199		88 993
1947	29 151	5 514	13 903		48 568
Increase	20 575	8 554	11 296		40 425
Per cent of Increase	70 5	155 1	81 2		83 2
Buffalo					
1948	16 151	7 520			23 671
1947	9 708	21 743			31 451
Increase	6 443	14 223*			7 780*
Per cent of Increase	66 3	189 1*			32 8*
Rochester					
1948	5 680				5 680
1947	2 612				2 612
Increase	3 068				3 068
Per cent of Increase	117 4				117 4
Syracuse					
1948	473		7 027		7 500
1947	134		9 744		9 878
Increase	339		2 717*		2 378*
Per cent of Increase	253 0		38 6*		31 7*
Albany					
1948		5 541			5 541
1947		966			966
Increase		4 575			4 575
Per cent of Increase		474 6			474 6
Utica					
1948	21 680			2 370	24 050
1947	16 328			1 789	18 117
Increase	5 352			581	5 933
Per cent of Increase	32 7			32 4	32 7
Totals					
1948	93 710	27 129	32,226	2 370	155 435
1947	57 933	28,223	23 647	1 789	111 592
Increase	35 777	1 094*	8 579	581	43 843
Per cent of Increase	61 7	4 0*	36 2	32 4	39 2

NOTE Experience of Western New York Medical Plan, Inc. Buffalo includes claims under surgical and medical contract to March 1 1947 when house and office calls were discontinued

TABLE 6.—Comparative Statement of Claim Incidence (Frequency with Which Claims Occur)*

Location	Surgical	Surgical and In-Hospital Medical	Surgical Medical (Home Office Hospital)	Medical Call Riders
New York				
1948	70 5	73 0	666 1	
1947	60 7	65 3	610 6	
Buffalo				
1948	140 6	342 1		
1947	124 1	738 7		
Rochester				
1948	99 2			
1947	73 6			
Syracuse				
1948	155 5		450 3	
1947	95 3		728 6	
Utica				
1948	211 6			55 9
1947	205 8			72 2
Albany				
1948		135 7		
1947		71 2		

* Per 1 000 participants per annum, by types of contracts for years ending December 31 1947 and 1948.

TABLE 7.—Comparative Statement of Earned Premium, Incurred Claim and Administrative Expenses for the Years Ending December 31 1947 and 1948

	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Earned Premium Income							
1948	$6 618 729	$979 634	$809 777	$197 406	$368 545	$325 577	$9 299 668
1947	3 986 028	830 264	621 067	152 488	223 762	96 056	5 909 665
Increase	$2 632 701	$149 370	$188 710	$ 44 918	$144,783	$229 521	$3 390 003
Claim Expense							
1948	$4,390 730	$686 731	$643 072	$150 239	$253 521	$245 095	$6 369 388
1947	2 320 738	654 172	441 359	102,929	100 632	61 725	3 681 555
Increase	$2 069 992	$ 32 559	$201 713	$ 47 310	$152 889	$183 370	$2 687 833
Administrative Expense							
1948	$1 398 534	$ 97 647	$113 644	$ 24 501	$ 56 782	$ 34,804	$1 725 912
1947	847 461	100 846	84 483	21 736	36 147	14 313	1 104,986
Increase	$ 551 073	$ 3 199*	$ 29 161	$ 2 765	$ 20 635	$ 20 491	$ 620 926
Claim Expense Ratio to Earned Premium							
1948	66 34	70 10	79 40	76 10	68 78	75 28	68 49
1947	58 22	78 79	71 06	67 50	45 00	64 25	62 29
Administrative Expense Ratio to Earned Premium							
1948	21 13	9 97	14 03	12 41	15 40	10 69	18 55
1947	21 26	12 14	13 60	14 25	16 19	14 90	18 69

* Indicates a decrease (Buffalo Plan)

TABLE 8.—Comparative Statement of Earned Premium, Incurred Administrative Expense per Contract and per Member for Years Ending December 31 1947 and 1948

Plan Location	Earned Premium	Per Contract	Per Member	Administrative Expense	Per Contract	Per Member
New York						
1948	$6 618 729	$13 22	$ 6 71	$1 398 534	$2 79	$1 41
1947	3 986 028	12 34	6 39	847 461	2 62	1 35
Buffalo						
1948	$ 979 634	$17 50	$ 6 87	$ 97 647	$1 74	$0 68
1947	830 264	19 31	7 58	100 846	2 34	0 92
Utica						
1948	$ 809 777	$16 33	$ 7 90	$ 113 644	$2 27	$1 10
1947	621 067	15 26	7 53	84 483	2 07	1 02
Syracuse						
1948	$ 197 406	$25 36	$10 58	$ 24,501	$3 14	$1 31
1947	152,488	25 72	10 74	21 736	3 66	1 53
Rochester						
1948	$ 368 545	$14 66	$ 6 22	$ 56 782	$2 25	$0 95
1947	223 762	13 31	5 66	36 147	2 15	0 91
Albany						
1948	$ 325 577	$18 44	$ 7 97	$ 34,804	$1 97	$0 85
1947	96 056	16 58	7 23	14 313	2 47	1 07

Note Mean average used in determining contracts and membership

NECROLOGY

LeRoy Becker, M.D., of Cobleskill, died on April 28 of a heart attack, while working in his garden. He was eighty years of age. A graduate of Albany Medical College in 1892, Dr. Becker had practiced medicine in Cobleskill for more than fifty years. He had served as coroner of Schoharie County and as physician at the Cobleskill Central School. He was a member of the New York State and Schoharie County Medical Societies and the American Medical Association.

Nathan Berger, M.D., New York City, died on February 12 at the age of fifty-seven. A graduate of the Long Island College Hospital in 1917, he was honorary assistant ophthalmologic surgeon at the New York Eye and Ear Infirmary and was a member of the New York State and County Medical Societies and the American Medical Association.

Anson Holden Bingham, M.D., seventy, died on April 22 at his home in New York City. Dr. Bingham was graduated from the New York Homeopathic Medical College and Flower Hospital in 1900 and interned at the Hahnemann Hospital before establishing his practice in New York City. He was orthopedic surgeon at the Flower and Fifth Avenue Hospitals and consulting orthopedic surgeon at the Metropolitan Hospital, New York City, the Yonkers General Hospital, Yonkers, and the Goshen Hospital, Goshen. A fellow of the American College of Surgeons, Dr. Bingham was a diplomate of the American Board of Orthopedic Surgery and a member of the New York State and County Medical Societies and the American Medical Association.

Fred Robert Driesbach, M.D., of Dansville, died on April 25 at the Dansville Memorial Hospital, which he had helped establish. He was eighty-three years old. A graduate of the College of Physicians and Surgeons, Columbia University, in 1889, Dr. Driesbach served for forty-seven years as coroner of Livingston County and had been a practicing physician for almost sixty years. He was instrumental in founding the Dansville Memorial Hospital in 1920 and served as chief of the medical and surgical staff and president of the board of directors. In 1948 he was elected president emeritus. Until his retirement in 1947, Dr. Driesbach had also served as surgeon for the Lackawanna Railroad. He was one of the oldest practicing physicians in New York State, and his term as coroner is believed to have been the longest served by any coroner in the State. He was a member of the New York State and Livingston County Medical Societies and the American Medical Association.

Richard Fleischer, M.D., fifty-eight, of New York City, died on May 8 at Mount Sinai Hospital after a brief illness. A native of Baireuth, Germany, Dr. Fleischer was educated at the Universities of Breslau and Munich, and received his medical degree from Erlangen in 1916. He was in charge of the obstetric hospital in Fuerth, Bavaria, before coming to this country in 1936. Dr. Fleischer was associate obstetrician at Beth Israel Hospital, clinical assistant in gynecology at the Hospital for Joint Diseases, and senior clinical assistant in gynecology at Mount Sinai Hospital. He was a member of the New York State and County Medical Societies and the American Medical Association.

William John Gaudineer, M.D., died at his home in Pelham Manor on May 6 at the age of ninety-three. A practicing physician until his retirement ten years ago, Dr. Gaudineer was graduated from the New York University Medical School in 1878 and was on the staff of St. Luke's Hospital, New York City, for more than thirty years.

Frank R. Geyser, M.D., of Queens, died on April 29 in Trenton, New Jersey, of a heart attack. He was sixty-four. Dr. Geyser was graduated from the Fordham University Medical School in 1906 and was formerly assistant professor of physical therapy there. During World War I, he served in the Army Medical Corps as a captain. He was a physician for the Prudential Insurance Company.

Edgar James Gilray, M.D., of Cuba, died on March 27 at the Cuba Memorial Hospital at the age of eighty-three. He was graduated from the University of Buffalo Medical School in 1891 and from 1895 to 1910 was medical superintendent of the Erie County Hospital. For ten years he practiced medicine in Alberta, Canada, and in 1920 returned to Cuba to open his practice there. He was a member of the New York State and Allegany County Medical Societies and the American Medical Association.

Silas Farnsworth Hallock, M.D., eighty-seven, died at his home in New York City on April 24. He received his medical degree from Western Reserve University, Cleveland, Ohio, in 1885, and for many years was associated with the Manhattan Eye and Ear Hospital. Dr. Hallock was a director of the Physicians' Home and was a member of the New York Academy of Medicine, the New York State and County Medical Societies, and the American Medical Association.

Abraham Hymanson, M.D., of New York City, died on April 24 at Beth Israel Hospital, at the age of eighty-four. Born in Russia, he came to this country as a young man. After graduation from City College, he received his medical degree from the New York University Medical School in 1892. Dr. Hymanson was a member of the first intern class at Beth Israel Hospital and was its oldest alumnus. He was consulting pediatrist at Beth Israel and Beth David Hospitals and a member of the executive committee of the American Jewish Physicians Committee.

Author of many articles on medical subjects, Dr. Hymanson contributed several original studies of Mongolian idiocy in children. He was an organizer of the Eastern Medical Society, formed forty years ago for the exchange of medical information among physicians of the lower East Side, and served for many years as vice-president and chairman of its committee on ethics. He was a member of the New York Academy of Medicine, the New York State and County Medical Societies, and the American Medical Association.

Dwight Fenn Johnson, M.D., seventy, died on April 24 at his home in Newark, of a heart attack. He received his medical degree from Cornell University Medical College in 1903, and interned at Bellevue Hospital where he served on the staff until 1906 when he established private practice in Newark. Dr. Johnson had served for thirty-seven years as

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1947	60 7	65 3	610 6	
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1947	124 1	738 7		
Rochester				
1948	99 2			
1947	73 6			
Syracuse				
1948	155 5		450 3	
1947	95 3		728 6	
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Albany				
1948		135 7		
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Increase	$2 632 701	$149 370	$188 710	$ 44,918	$144,783	$229 521	$3 390 003
Claim Expense							
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Claim Expense Ratio to Earned Premium							
1948	66 34	70 10	79 40	76 10	68 78	75 28	68 49
1947	58 22	78 79	71 06	67 50	45 00	64 25	62 29
Administrative Expense Ratio to Earned Premium							
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1947	21 26	12 14	13 60	14 25	16 19	14 90	18 69

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1947	3 986 028	12 34	6 39	847 461	2 62	1 35
Buffalo						
1948	$ 979 634	$17 50	$ 6 87	$ 97 647	$1 74	$0 68
1947	830 264	19 31	7 58	100 846	2 34	0 92
Utica						
1948	$ 809 777	$16 33	$ 7 90	$ 113 644	$2 27	$1 10
1947	621 067	15 26	7 53	84,483	2 07	1 02
Syracuse						
1948	$ 197 406	$25 36	$10 58	$ 24 501	$3 14	$1 31
1947	152 488	25 72	10 74	21 736	3 66	1 53
Rochester						
1948	$ 368 545	$14 66	$ 6 22	$ 56 782	$2 25	$0 95
1947	223 762	13 31	5 66	36 147	2 15	0 91
Albany						
1948	$ 325 577	$18 44	$ 7 97	$ 34 804	$1 97	$0 85
1947	96 056	16 58	7 23	14 313	2 47	1 07

Note Mean average used in determining contracts and membership

HOSPITAL NEWS

Voluntary Hospitals Fiscal Condition "Not Precarious"

"THE financial position of voluntary hospitals is not so precarious as to warrant immediate financial assistance by the state," a Columbia University professor declared in an interim report submitted to the State's joint hospital survey and planning commission.

However Dr Eli Ginsberg, associate professor of economics in Columbia's School of Business, said this assurance is based on the assumption there will be no serious business depression in 1949

Dr Ginsberg is making a study of the social and economic aspects of hospital finance for Columbia University, under contract with the State

His interim report has been accepted by the hospital survey and planning commission The final report is due in September

The study is gathering available information on the financial structure of voluntary hospitals, adequacy of State hospital system, the "changing role" of the hospital in the community, and the administrative and financial interrelations between voluntary groups and government.

The joint hospital survey and planning commission was set up by the legislature in 1947 to inventory hospital facilities, make a survey of hospital needs and develop a program for hospital construction with the use of Federal funds.

Its comprehensive hospital program to meet demands for care was outlined last year It recognized that the problem of hospital finance is becoming critical because of increased wages, costs of supplies, and mounting demands for effective but expensive medical services

Last August it contracted with Columbia for the study which is expected to show, among other things, the extent to which the government must give financial support to hospitals or contribute to hospitalization insurance programs.

Broader Function of Hospitals Cited

THE hospitals can contribute effectively as health centers to a broad program of preventive medicine, providing a "total of services required to maintain and foster health," Dr Stanhope Bayne-Jones president of the joint administrative board of the New York Hospital-Cornell Medical Center, told a gathering of 2,000 physicians March 28 He addressed the opening general session of the American College of Physicians' annual meeting at the Waldorf-Astoria Hotel, New York City

The functions of hospitals, Dr Bayne-Jones said, extend beyond the care of the sick in their inpatient and outpatient departments They render service not only for the reconstruction of health, through curative medicine, but also for the construction and preservation of health, through preventive medicine.

"The realization that there are early beginnings of the chronic diseases of those over 40 years of age—diseases increasing in frequency and importance with the increasing age of the population—forces attention to early diagnosis and preventive clinical medicine," Dr Bayne-Jones declared. Study and work along these lines, he added, "will occupy an increasing amount of time and activities of the professional medical and nursing staffs of hospitals."

Dr Bayne-Jones outlined the possibilities and requirements for future expansion and development of hospitals as centers of preventive medicine. These included the development of diagnostic clinics for the examination of the sick and the well, the enlargement of consultation services for patients and doctors of the community, the development of group practice both within the hospital and in connection with groups of physicans outside the hospital, extension of hospital connections with private practitioners, particularly the general practitioner, development of home-care programs with a base in the hospital, education and training in preventive medicine and constant research

Establish Cardiac Clinic at Medical Center

A "WORK Classification Unit" to determine the type of occupations persons with heart disease may safely hold in business and industry has been set up at the Cardiac Clinic of the New York University-Bellevue Medical Center The Unit is now engaged in classifying approximately 1,000 ambulatory patients having heart disease.

Designed to evaluate the appropriateness of jobs held by individuals with heart disease and to offer guidance to those in unsuitable vocations, the survey will take more than a year's time for completion. It will be conducted among the outpatients attending the Bellevue Hospital Thursday Night (N Y U) Cardiac Clinic

The Survey is, according to Dr Charles E Kossmann, assistant professor of medicine at New York University College of Medicine and director of the Bellevue Thursday night clinic, "one of the first analyses ever made of the physical, mental, and vocational capacities of a large group of individuals with heart disease, as well as of their needs for occupational readjustments."

Dr Leonard Goldwater, authority on industrial medicine and professor of industrial hygiene at Columbia University, is the Unit's director The New York Heart Association is underwriting the work financially and has representatives on the scene to collect and correlate nonmedical material

health officer of the town of Arcadia and was former president of the Wayne County Medical Society During World War II he was chairman of the physician classification board and a medical examiner for the Selective Service Board. Dr Johnson was a member of the Geneva Academy of Medicine, the American Academy of General Practice, the New York State and Wayne County Medical Societies, and the American Medical Association.

Frederick William Lederman, M D, forty-nine, died on January 1 in New York City He received his medical degree from the University of Breslau in 1925 and was clinical assistant in chest diseases at the Hospital for Joint Diseases, New York City Dr Lederman was a member of the New York State and County Medical Societies and the American Medical Association

Carl Esselstyn McCombs, M.D, of Chappaqua, died on May 6 after a long illness He was sixty-six years old A graduate of the Cornell University Medical College in 1909, he was a house surgeon at Harlem Hospital, New York City, before opening a practice in Schenectady Several years later he returned to New York City and engaged in public health work A pioneer in public health and welfare administration, Dr McCombs was a member of the staff of the Institute of Public Administration and the author of *City Health Administration*, published in 1927 For many years he was active in the American Public Health Association, the American Hospital Association, the Governmental Research Association, the American Statistical Association, and the Public Health Association of New York City Dr McCombs was a former member of the Westchester County Commission on Government

Roger Depew Mead, M D, sixty-seven, of Endicott, died on March 31 in St Petersburg, Florida, after two years illness Dr Mead was graduated from the Syracuse University College of Medicine in 1908 and opened his practice in Endicott He had served more than fifteen years as area medical examiner for the Civil Aeronautics Administration and was also an examiner for the United States Civil Service Commission In 1948, Dr Mead was honored by the Endicott Eagle Lodge as an outstanding citizen because of his long service to the community A former president of the staff of Endicott Ideal Hospital, Dr Mead was a member of the New York State and Broome County Medical Societies, and the American Medical Association

John Lawrence O'Brien, M D, the Bronx, died suddenly of a heart attack on May 3 while attending the annual meeting of the Medical Society of the State of New York at the Hotel Statler, Buffalo He was fifty-one Dr O'Brien was a delegate from the Bronx County Medical Society A graduate from the Yale University Medical School in 1924, he was associate surgeon at St. Francis Hospital He was former president of the Bronx Medical Association, and chairman of the economics committee of the Bronx County Medical Society Dr O'Brien was a member of the New York State and Bronx County Medical Societies and the American Medical Association

Paul E Santangelo, M.D, fifty-one, died on April 25 at his home in Brooklyn He received his medical degree from Fordham University in 1921, after his college studies had been interrupted by service in World War I Dr Santangelo was associate surgeon at Cumberland Hospital and the Brooklyn Cancer Institute, and associate attending surgeon at Prospect Heights Hospital, all in Brooklyn. He was a member of the New York State and Kings County Medical Societies and the American Medical Association

Augustus B Santry, M.D, of Little Falls, died on April 23 at his home at the age of eighty-one He received his medical degree from the University of Maryland School of Medicine in 1896 and had practiced medicine in Little Falls for more than fifty years, until his retirement in 1946 Dr Santry had been mayor of Little Falls in 1908 and 1909 and again from 1932 to 1936 He also served as city health officer for more than twenty years. He was a member of the New York State and Herkimer County Medical Societies and the American Medical Association.

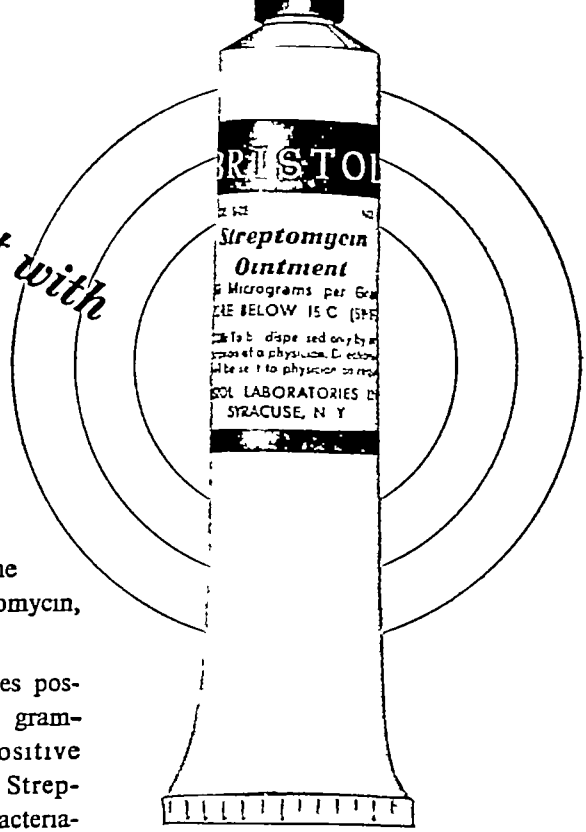
Jacob Silver, M.D, fifty-six, New York City, died on February 15 He received his medical degree from Fordham University in 1918

Harrison Greenleaf Sloat, M.D, a retired surgeon for the United States Veterans Administration, died on April 30 at his home in Fishkill He was seventy While still a student, he joined the Navy during the Spanish-American War, and was graduated in 1901 from the New York Homeopathic Medical College After internship, he joined the faculty of the medical school and later practiced in Glen Cove, Long Island. During World War I, Dr Sloat served overseas as a captain in the Army Medical Corps In 1921, he joined the Veterans Administration and was assigned to its hospital at Fort Lyon, Colorado He later served at hospitals in Rutland, Massachusetts, and Aspinwall, Pennsylvania His last assignment was at the Veterans Hospital at Castle Point, where he served from 1936 until his retirement last year after twenty-one years with the V A.

Willard Hamilton Sweet, M D, seventy-eight, died on April 24 at his home in Peekskill He had been a practicing physician and surgeon for fifty-five years until his retirement in 1947 Dr Sweet was graduated from the Albany Medical College in 1892 and interned at St Peter's Hospital, Albany, before opening general practice in Petersburg, his birthplace. In 1907 he came to Peekskill and established his practice there He was a member of the medical board of the Peekskill Hospital. Dr Sweet belonged to the New York State and Westchester County Medical Societies and the American Medical Association

Irving I Weiner, M.D, of Brooklyn, died on April 10 at the Jewish Hospital, Brooklyn, at the age of fifty He received his medical degree from the New York Homeopathic Medical College in 1923 and had a private practice in Brooklyn before World War II He served in the Army Medical Corps from 1942 to 1946, and was a physician with the Veterans Administration branch office in New York City Dr Weiner was a member of the American Congress of Physical Medicine, the New York State and Kings County Medical Societies, and the American Medical Association

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Bristol Streptomycin Ointment

When attacking skin and wound infections, more than half of which "will be found to be due to a mixture of organisms",[1] the effective agent is one which, like streptomycin, has a wide antibacterial effect.

BRISTOL STREPTOMYCIN OINTMENT makes possible potent local action against most gram-negative and many common gram-positive organisms (such as Staphylococci and Streptococci) Its bacteria-destructive and bacteria-inhibitory effect is broader than other topical antibiotics It is, therefore, effective against more skin and surface wound infections

BRISTOL STREPTOMYCIN OINTMENT, demonstrably less sensitizing than other antibiotics used topically, may be employed with little fear of local reaction Adverse systemic effects have not been seen following its use

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Statistics developed by the survey will seek to demonstrate that it is poor business to reject for employment a talented and otherwise able candidate on the grounds that he has heart disease Within reasonable limits and under medical supervision the majority of persons who have heart disease can safely engage in regular occupations, it is contended

For those patients who must adapt themselves to new occupations, rehabilitation training is offered

Physicians of the Center's Institute of Rehabilitation are in constant attendance at sessions of the Work Classification Unit for the purpose of developing new methods that will enable cardiac sufferers to extend their earning capacities

The Bellevue cardiac clinic, in which the work classification survey is being made, is the oldest clinic in the country for the care of ambulatory patients with heart disease

NEWS NOTES

Dr John C Brady, Buffalo, a member of the Erie County Medical Society, spoke on "The Evils of Socialized Medicine" at a special meeting of the Lockport Hospital Guild held March 28 in Lockport The program was sponsored by the Hospital Guild with the cooperation of the Niagara County Medical Society and its Auxiliary

The general practitioner's place on hospital medical staffs was discussed by Dr Robert H Lowe, director of Rochester General Hospital, Rochester, at the twenty-sixth annual meeting of the New England Hospital Assembly, held in Boston, Massachusetts, on March 30 The Rochester General Hospital was the first city hospital to inaugurate a refresher training program for general practitioners last year

The annual Chest Conference of St John's Episcopal Hospital, Brooklyn, was held May 21 at the Hospital. Dr Charles E Hamilton presided at the morning session, which included the following program "Admission Miniature X-ray," Dr J Mangiardi, "Pre- and Postoperative Management of Thoracic Surgery Patients," Dr E K. Johnson, "The Right-sided Approach to Carcinoma of the Esophagus," Dr Raymond K J Luomanen, and 'Cancer of the Lung—Methods of Diagnosis," Dr Alfred Bicunas Dr Merrill M Foote presided at the afternoon session, which included "A Review of 1948," Dr E K. Johnson, and the Bishop De Wolfe Lecture on "Cancer of the Esophagus" by Dr Richard H Sweet, visiting surgeon of the Massachusetts General Hospital, Boston in cooperation with the Brooklyn Cancer Committee

The seventh Bela Shick Lecture was presented on May 11 in the Blumenthal Auditorium of Mount Sinai Hospital, New York City, under the sponsorship of the board of trustees and the medical staff of the Hospital Dr Selman A. Waksman, professor of microbiology at Rutgers University, New Brunswick, New Jersey, and microbiologist at the New Jersey Agricultural Experiment Station, spoke on "Searching for New Chemotherapeutic Agents"

Dr Alfred A Orans, Westbury, was recently added to the medical staff of the Nassau Hospital,

it was announced in April National Hospital Day was observed at the hospital on May 2 in a joint celebration marking the twenty-fifth anniversary of the Women's Auxiliary to Nassau Hospital. During the day, the public was admitted for tours directed by student nurses through the hospital.

A postgraduate course in "Modern Treatment of Fractures and Other Traumatic Conditions" will be held at the Massachusetts General Hospital, Boston, from October 24 to November 3, 1949, under the auspices of the Harvard Medical School Further information may be obtained from the Harvard Medical School, 25 Shattuck Street, Boston, Massachusetts

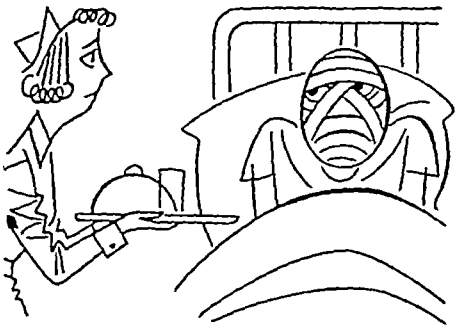
Dr. John C McClintock, assistant professor of surgery, Albany Medical College, and assistant attending surgeon, Albany Hospital, spoke on "Socialized Medicine" before the student and graduate nurses of the Hospital on April 19

A total of 7,645 patients were admitted to St Elizabeth Hospital, Utica, during 1948, according to the annual report submitted by Sister M Reginasuperintendent The total number of hospital-days treatment was 67 976, and the average number of patients treated each day was 162

The regular meeting of the staff of St Francis Hospital, Poughkeepsie, was held on April 4. Case presentations were given by Drs. Florence Gottdiener, R T Lapidus, J J Toomey, and Barbara Stimson, and were discussed by Dr F A Gagan.

Recent speakers at the Castle Point Veterans Hospital have included May 2—Dr Irving R. Tabershaw, "Pulmonary Industrial Disease with Special Emphasis on Beryllium Poisoning," and May 24—Dr Richard Donovick, "Streptomycin and Dihydrostreptomycin"

On May 27, the Veterans Administration Surgical Therapy Conference was held, with discussion on "Resection in Tuberculosis" and "Recent Advances in the Surgical Therapy of Pulmonary Tuberculosis"



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Beef lamb pork, veal liver, heart

Simply putting soft foods on a tray is no assurance that patients will put them away. That's why so many physicians today are recommending Swift's Strained Meats—flavorful, real meats they're sure patients will eat! Prepared specially, soft and smooth, Swift's Strained Meats are so good they tempt even the most apathetic appetites!

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For patients who can take foods of less fine consistency—Swift's Diced Meats offer tender morsels of nutritious meats with tempting flavors patients appreciate.

MEDICAL NEWS

2,500 Attend 143rd Annual Convention of State Society

WITH a total registration of almost 2,500, including 1,609 physicians, 538 guests including medical students, interns, nurses, and doctors' wives, and 335 exhibitors, the 143rd annual convention of the Medical Society of the State of New York was held at the Hotel Statler, Buffalo, from May 2 through 6, 1949

Sessions of the House of Delegates were held on Monday, Tuesday, and Wednesday, with Dr Albert F R. Andresen, Brooklyn, as speaker (A report of the proceedings will be published in a later supplementary issue of the JOURNAL.) Scientific sessions and sections met during the week, and scientific and technical exhibits were on display

At the annual elections held Wednesday morning, May 4, Dr Carlton E Wertz, of Buffalo, was chosen president-elect of the State Society Dr Wertz will serve for one year, after which he will succeed Dr John J Masterson, of Brooklyn, who was installed as president Dr Masterson succeeds Dr Leo F Simpson of Rochester

Dr Wertz, a member of the Council of the State Society for the past five years, also is chairman of the State Society's Economics Committee. He is a past-president of the Medical Society of the County of Erie and past-president of the Buffalo Academy of Medicine. He is a member of the Workmen's Compensation Board of the Erie County Medical Society

Other officers elected by the House of Delegates were Dr James E McAskill of Watertown, vice-president, Dr W P Anderton, of New York City, secretary, Dr Andrew A Eggston of Mount Vernon, assistant secretary, Dr James R. Reuling of Bayside, treasurer, Dr Fenwick Beekman of New York City, assistant treasurer, Dr Albert F R. Andresen of Brooklyn, speaker of the House of Delegates, and Dr Frederic W Holcomb, of Kingston, vice-speaker of the House of Delegates Dr William H Ross of Brentwood was re-elected as a trustee for five years and Dr Dan Mellen of Rome was re-elected as a trustee for four years Councilors elected were Dr Theodore J Curphey, Garden City, Dr Harold F R. Brown, Buffalo, Dr Elton R. Dickson, Binghamton, Dr Leo E Gibson, Syracuse, Dr George C Adie New Rochelle, and Dr Renato J Azzari Bronx.

Delegates to the American Medical Association elected at the annual meeting were Dr Renato J Azzari, the Bronx, Dr Peter J Di Natale, Batavia, Dr Andrew A. Eggston, Mount Vernon, Dr Joseph P Henry, Rochester, Dr J Stanley Kenney, New York City, Dr George W Kosmak, New York City, Dr John J Masterson, Brooklyn, Dr Thomas A. McGoldrick, Brooklyn, Dr Stephen R. Monteith, Nyack, Dr Peter M Murray, New York City, and Dr Leo F Simpson, Rochester

Alternate delegates elected were Dr Samuel B Burk, New York City, Dr Maurice J Dattelbaum, Brooklyn, Dr Thomas M D'Angelo, Jackson Heights, Dr John L Edwards, Hudson, Dr Joseph A Geis, Lake Placid, Dr Daniel J McAuliffe, Bronx, Dr Madge C L. McGuinness, New York City, Dr Scott Lord Smith, Poughkeepsie, Dr Denver M Vickers, Cambridge, Dr Thomas M Watkins, Potsdam, and Dr E A. Wolff, Forest Hills

Dr Edward T Wentworth, Rochester, is the new chairman of the Board of Trustees

Scientific papers which were presented at the meeting will be published, according to sections and sessions, in the NEW YORK STATE JOURNAL OF MEDICINE, beginning with the July 1 issue.

Awards made for scientific and clinical research exhibits at the convention include

Scientific Research—Dr Nathan E Woodruff, Oak Ridge, Tennessee, "Radio Isotopes" —first award

Dr Sidney A Gladstone, New York Polyclinic Medical School and Hospital, "Sponge Biopsy—A New Method in Cancer Diagnosis"—second award

Dr Louis E Etter Western State Psychiatric Institute and Clinic Pittsburgh, Pennsylvania, "New Method for Roentgen and Anatomic Study of the Skull"—honorable mention

Clinical Research—Dr David Lehr, New York Medical College, "Low Toxicity of Sulfonamide Mixtures"—first award

Dr Charles A R. Connor, American Heart Association, New York City, "Etiologic Diagnosis of Heart Disease"—second award

Dr Charles LeRoy Steinberg, Rochester, "Gold Toxicology in Rheumatoid Arthritis"—honorable mention.

At the annual banquet held on May 4, Dr A. H Aaron, Buffalo, acted as toastmaster, and addresses were made by the retiring president, Dr Simpson, who received the President's Medal from Dr William H Ross, Brentwood, chairman of the Board of Trustees, the incoming president, Dr Masterson, Dr Rose M Lenahan, vice-president of the Women's Medical Society of New York, Dr Arthur D Jacques, New York State's outstanding general practitioner for 1948, and Dr Morris Fishbein, editor of the *Journal of the American Medical Association*

The Fifty-Year Veterans

ONE hundred six members of the Medical Society of the State of New York were honored at the 143rd Annual Meeting of the Society on having completed fifty years of practice in the medical profession Each physician was awarded a certificate commemorating his long period of service, at the Annual Banquet on May 4. The JOURNAL extends its congratulations to these doctors whose names are as follows

LEWIS P ADDOMS, M.D , Brooklyn
ANNA M AGNEW, M.D , Brooklyn
GEORGE EVERETT BEILBY, M D , Albany
LESTER BETTS, M D Schenectady
LOUIS J BEYER, M D , Buffalo
EDGAR BIRDSALL, M D , Glens Falls
ALBERT S BLAU, M D Forest Hills
DOMINIC G BODKIN, M.D , Brooklyn
ALFRED BORNMANN, M D , Brooklyn
FREDERICK D BRANCH, M D Binghamton
LEWIS STANLEY BUDLONG, M.D , Watertown
TRIGANT BURROW, M D , New York
CHESTER TUPPER CADWELL, M D , Wassaic

[Continued on page 1342]

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[Continued from page 1340]

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MORRIS CINBERG M D , New York
RUFUS COLE, M D , Mt Kisco
FRANTZ A. COLMERS, M D New York
G WORDEN CRISSEY, M D , Mechanicville
ROBERT E DE CEU, M D , Buffalo
JOHN S DORIAN, M.D , Brooklyn
MARTIN J DOWNEY, M D , Buffalo
WILLIAM C DURRIN, M.D , Brooklyn
DAVID EDWARDS, M D , East Hampton
PHILIP EICHLER, M D , Bronx
BARTHOLD FLESCH, M D , New York
LOUIS A. FRIEDMANN, M D , New York
FREDERICK S GEORGE, M D , Syracuse
ALEXANDER GILLIGAN, M D , Brooklyn
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GUY GRANGER, M D , Mayville
HARRY GREENSTEIN, M D , Bronx
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ABRAHAM KOPLOWITZ, M D , Brooklyn
GEORGE W KOSMAK, M D , New York
REYNOLD KUTNER, M D , New York
WALTER A Leonard, M D , Cambridge
ELSIE S L'ESPERANCE, M.D , New York
RICHARD LEWISOHN, M D , New York
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HENRY F MACE, M D , Menands
GEORGE M MACKEE, M.D , New York
ALEXANDER MARK, M D , Elmira
JOHN J MCMAHON, M D , New York (*deceased*)
FRITZ MAX MEYER, M D , Four Corners
EDWARD MILLER, M D , New York
LOUIS M MOONEY, M.D , New York
GARRY MOUNT, M.D , Rochester
WALTER A. MULHOLLAND, M D , Heuvelton
BERT MUNDAY, M D , New York
ALBAN E MUNSON, M.D , Bronx
LEON G OGDEN, M D , Holley
CORNELIUS E O'GRADY, M D , Bronx
JOHN H. OHLY, M.D , Brooklyn
ALFRED T OSGOOD, M D , New York
JOHN R PAGE, M.D , New York
SAMUEL D PIQUET, M.D Mattituck
EUGENE H POOL, M.D , New York (*Deceased*)
MARY E POTTER, M.D , Brooklyn
WILLY RIESER, M D New York
WILLIAM BENJAMIN ROEMER, M.D , Utica
ABRAHAM J RONGY, M D , New York
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EDWARD A. SCHWEIGERT, M D , Buffalo
ALBERT E SELLENINGS, M.D , New York
ZELIK SHARFIN, M D , Brooklyn
CLAYTON E SHAW, M D , Hoosick Falls
ALFRED E SHIPLEY, M.D , Brooklyn
WALTER A. SHOALES, M.D , Norwich
ANGELO JOHN SMITH, M.D Yonkers
HERBERT B SMITH, M.D , Corning
HOWARD B SNELL, M.D , Brooklyn
JOHN A. SPENGLER, M D , Geneva
SHIRLEY E SPRAGUE, M D , New York
AMOS O SQUIRE, M.D , Ossining (*Deceased*)
BYRON L. SWEET, M.D , Tarrytown
JOHN HAROLD TALLMAN, M.D , Mt Vernon
JARVIS L THORPE, M.D , Clyde
OTTO CHARLES THUM, M D , New York
GEORGE S TOWNE, M D , Saratoga
ALBERT E ULLMAN, M D , Central Islip
JACOB M WALLFIELD, M D , Brooklyn
LEROY H WARDNER, M.D , Saranac Lake
LEOPOLD D WEISS, M.D , New York
HARRY J WHITE, M D , Troy
CHESTER F S WHITNEY, M.D , New York
BORIS WHYNMAN, M.D , New York
ALEXANDER WOLFF, M.D , New York
CHARLES M WOODBURN M D , Binghamton

MEDICALLY SPEAKING—

Civilian Doctors Sought for Panama Canal Zone—Permanent appointments for physicians in the Civil Service now exist in the Panama Canal Medical Service, according to an announcement from the Office of the Panama Canal, Washington, D C

Starting professional salaries are $5,599 and $6,540 a year, with free transportation to the Canal Zone provided for physicians, their families, and household goods. In addition, doctors who receive appointments get two months paid vacation (including time lost by illness) and reduced fares on Panama Line passenger vessels

Requirements for professional medical positions starting at $5,599 are as follows graduation from an approved medical school, license to practice medicine in a state, ability to pass a standard physical examination, and completion of one year's internship in a hospital approved by the American Medical Association

Requirements for professional medical positions starting at $6,540 are the same except that a minimum of three years of postinternship experience is required

Physicians who are interested in a position as medical officer in the Panama Canal Zone should address their applications to the Chief of Office, The Panama Canal, Washington 25, D C Applications may also be submitted to the U S Civil Service Commission, Washington 25, D C

New York's Blue Cross Plan Breaks Enrollment Record—Enrollment of 275,676 persons in Associated Hospital Service, New York's Blue Cross Plan, during the first three months of 1949, represented the largest gain for any calendar quarter in the organization's history and brought the total enrollment to 3,901,997, it was announced recently by Louis H. Pink, president, at the annual meeting of

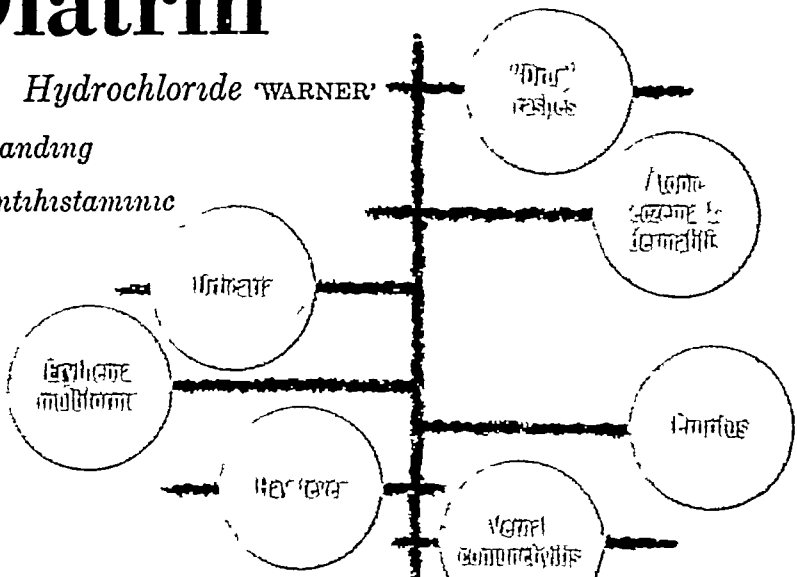
[Continued on page 1344]

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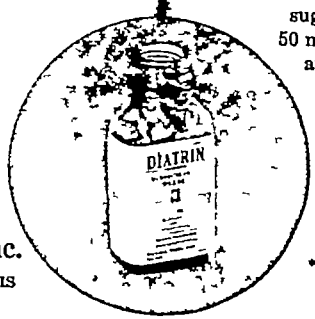
Antihistaminic



DIATRIN* hydrochloride 'Warner' provides prompt and effective relief of allergic symptoms with minimum by-effects

Unpleasant side-reactions such as drowsiness, lethargy, nausea, vomiting and dizziness are rarely encountered in the clinical use of DIATRIN* hydrochloride

In toxicity studies, DIATRIN* hydrochloride has been found to be approximately one-half to three times less toxic than other antihistaminic substances tested



DIATRIN* hydrochloride sugar-coated tablets, 50 mg each, are available in bottles of 100 and 1000

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NEW YORK ST LOUIS

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[Continued from page 1342]

the board of directors held at headquarters, 80 Lexington Avenue, New York City

The total enrollment for the first three months of 1948 was 154,772, Mr Pink declared.

Per Patient Eye Care Cost in Great Britain 60 Per Cent Higher Than in U S—In terms of purchasing power, the per patient cost of eye care, including professional fee and eyeglasses, is approximately 60 per cent higher in Great Britain under its national health service program than in the United States, Walter A. Stewart, president, American Optical Company, stated in a recent address

Reporting on eye care in Great Britain where a comprehensive national health service includes free ophthalmic services and spectacles, Mr Stewart said that even with an increase in the British population receiving yearly eye care, "England will have reached only the point in general eye care we arrived at several years ago"

The ophthalmic professions in the United States, he pointed out, "through their education, training, and skill, have kept pace with the ever-increasing need for eye care and are in a position to provide the requisite professional services"

Britain's experience with free eye care is particularly illuminating from an economic point of view, Mr Stewart said, noting that "the annual cost was originally estimated at $10,000,000 The actual cost for the first year will come close to $60,000,000, or 600 per cent more than was estimated."

Israeli Medical School Opens in Jerusalem—The Hebrew University-Hadassah Medical School, the first medical school to be established in the new state of Israel, will open its doors May 17, 1949, as a joint undertaking of the Hebrew University and Hadassah, the Women's Zionist Organization of America. Until security conditions permit continuation of construction on Mt Scopus, the site of the present 400-bed Rothschild-Hadassah-University Hospital, the School will be housed in four hospital units, totaling initially over 300 beds, in the city of Jerusalem proper

Advisory to the School throughout its planning stage and instrumental in the procurement of faculty and in the placement of medical personnel for postgraduate study is the Medical Reference Board of Hadassah and the Hebrew University A volunteer group of distinguished American physicians, medical administrators, and public health experts, the Medical Reference Board numbers amongs its members Dr E. M Bluestone, chairman, Dr Louis I Dublin, Dr Thomas D Dublin, Dr Harry Eagle, Dr Abraham Flexner, Dr Jonas S Friedenwald, Dr Jacob J Golub, Dr Maurice B Hexter, Dr William A. Perlzweig, Dr Israel S Wechsler, Dr Charles F Wilinsky, and Dr Abel Wolman

Supplement to Medical Fee Schedule Adopted—Miss Mary Donlon, chairman of the Workmen's Compensation Board, recently announced that a Supplement to the Medical Fee Schedule had been adopted, effective May 1, 1949

"The present Medical Fee Schedule in workmen's compensation, which became effective last September 1 and covers approximately one thousand items of medical service in the treatment of workmen's compensation claimants, was the first complete revision in twelve years Quite naturally it gave rise to some inquiries and these the newly adopted supplement clarifies," Miss Donlon explained.

Copies of the Supplement will be mailed to each of the 25,000 physicians authorized to render medical care under the Workmen's Compensation Law

National Cancer Institute Grants—Grants of $293,452 by the National Cancer Institute to support laboratory and clinical research and of $79,853 for research facilities were announced today by Oscar R. Ewing, Federal Security Administrator The grants were approved by Surgeon General Leonard A. Scheele of the U S Public Health Service following recommendation by the National Advisory Cancer Council and are in addition to research grants of $671,200 announced on March 25

The following New York State institutions have been awarded continuation grants under the recent appropriation

Cornell University Medical College—$19,000 for studies on mechanisms of resistance to cancer and effects of tumor cells of an antibiotic form, Aspergillus fumigatus, under Dr John G Kidd

College of Physicians and Surgeons, Columbia University—$11,000 to continue study on the relationship of undifferentiated epithelium and reticulum in the evolution of adenocarcinoma of stomach produced by carcinogens, under Dr Edward Lee Howes.

Harlem Hospital—$20,000 for study on an evaluation of the effects of chemotherapeutic agents in neoplastic and associated virus diseases, under Dr Louis T Wright

Death Rate Lower in First Quarter of 1949—There was a pronounced drop in the general death rate in the first four months of this year as compared with same period in 1948, the Department of Health has announced There were 27,244 deaths from all causes in New York City in the first four months of 1949 giving a general death rate of 10 2 per 1,000 of population as against 30,092 deaths giving a general death rate of 11 5 for the first four months of 1948 This is a drop of 11 per cent

In the first four months of this year there were 988 deaths attributed to pneumonia against 1,322 attributed to that disease in the same period of 1948, probably because of the mild weather

So far this year there have been no deaths reported as caused by diphtheria, measles, or scarlet fever

In April, there were 6,821 deaths from all causes giving a general death rate of 10 2

There were 13,314 births in April (or an average of 444 a day) yielding a birth rate of 19 8 per 1,000 of population Births in the first four months this year totaled 53,005 with a birth rate of 19 8.

The April infant mortality rate was 25 2 per 1,000 live births, somewhat higher than the previous month's rate of 24.6 The stillbirth rate of 93 4 per 1,000 live births is somewhat lower than the March, 1949 rate of 97 0

Sixteen maternal deaths were reported for the month, with a rate of 12 0 per 10,000 live births This is an increase over the previous month's rate of 6 3

Chickenpox cases continued at a high level with 2,597 cases being reported during the month Although there is a decrease from the previous month's high of 3,065 cases, this month's total is the second highest in the Department's history There were 9,105 chickenpox cases reported for the first four months of this year

Award-Winning Army Film Available—The Army Medical Department-Signal Corps motion picture entitled, "Toward Independence," is available on a loan basis to all military organizations and to any nonprofit civilian group The film may be obtained from the nearest Signal Corps *Film Library or by*

[Continued on page 1346]



USED BY PHYSICIANS FOR 14 YEARS*

Ray-Formosil for intramuscular injection is a clinically proved, effective treatment for Arthritis and Rheumatism It is a non-toxic, sterile, buffered solution containing in each cc

FORMIC ACID	5 mg
HYDRATED SILICIC ACID	2 25 mg

Literature sent upon request

Supply	1 cc.	2 cc.
	25—$6 25	25—$7 50
	100—20 00	100—25 00

(These net prices to physicians are 25% off regular list prices)

*C F F, M D OF PA, HAS REORDERED RAY FORMOSIL 142 TIMES

[Continued from page 1344]

writing to the Public Information Officer in New York City

The picture portrays the program for the care of paraplegics as developed by the Army Medical Department The film details the progress of a patient first learning to move about in his hospital bed, then learning to use re-educated muscles in opening doors, climbing stairs, and driving automobiles, and other steps in his rehabilitation.

New York City Doctors Head N Y U College of Medicine Alumni—Newly elected officers of the Alumni Association, New York University College of Medicine, have been announced by the directors of the University's Alumni Federation

Supporting Dr Royal A. Schaaf of Newark, New Jersey, the new president, will be a slate including Dr Sydney D Weston, Brooklyn, president-elect, who will succeed Dr Schaaf as president, and the following Manhattan physicians Dr Walter Levy, vice-president, Dr Richard M. Hyman, secretary, and Dr Harold Brandaleone, treasurer All those elected assumed office May 5 at a meeting of incoming and outgoing Executive Committees in the Faculty Club, New York.

Quarterly Statistics of United Medical Service, Inc.—Statistics covering the first three months of 1949 released recently by United Medical Service, Inc , New York, were as follows

Number of subscribers	
As of December 31, 1948	1,128,967
As of March 31, 1949	1,294,314
Paid for medical care of U M S subscribers	
For twelve months of 1948	$4,390 730
For first three months, 1949	1,339,118
(First three months, 1948—$794,357)	
Participating physicians	16 894

MEETINGS

Past

Middle Atlantic States Regional Conference

The manner in which seven state medical societies are implementing the National Education Campaign of the American Medical Association was the central theme of discussion at the Middle Atlantic States Regional Conference on April 21 in the auditorium of the Philadelphia County Medical Society

The Medical Society of the State of New York was represented by Dr J Stanley Kenney, member of the executive committee, Mr Dwight Anderson, director of Public Relations, and Thomas E Walsh and Frederick W Miebach of the Public Relations Bureau

Reports on campaign activities were made by representatives of the state societies of Virginia, Maryland, Delaware, New Jersey, Pennsylvania, and New York, and a special report by Dr John F Conlin of the Massachusetts society In addition, the conference was addressed by Dr Joseph S Lawrence, director of the Washington office of the A M A. Mr Thomas Hendricks, executive secretary of the A.M A Council on Medical Service, Mr Thomas Holloway, director of the A M.A Bureau of Legal Medicine and Legislation, and Marjorie Shearon, of Washington, D C

Medical Film Institute of the Association of American Medical Colleges

The Navy film, "Typhus in Naples," and two other medical motion pictures were shown at the opening of the Medical Film Institute of the Association of American Medical Colleges on April 28 at the New York Academy of Medicine. The program also included an illustrated talk, entitled "Blueprint for Medical Television."

Conference on Law, Medicine, and the Unstable Family

A Conference on Law, Medicine, and the Unstable Family was held on April 29 at the New York Academy of Medicine under the joint sponsorship of the Academy and the New York County Lawyers' Association Speakers included Dr Benjamin P Watson, president of the New York Academy of Medicine, and Mr I. Howard Lehman, president of the County Lawyers' Association, also Drs. Abraham Stone, Herbert B Wilcox, Jr , Iago Galdston, and Lawson G Lowrey

State Charities Aid Association

Midcentury review of aims and gains in public health and public welfare in the State was the theme of the annual conference of the State Committee on Tuberculosis and Public Health of the State Charities Aid Association in New York City, May 10 and 11

Public sessions featured the status of tuberculosis control at the midcentury, venereal disease control progress, public health and public welfare relationships, how to interest young men and women in public health careers, and a session on heart disease.

New York Psychoanalytic Society

Dr Isidor Silbermann was the featured speaker at the May 17 meeting of the New York Psychoanalytic Society Dr Silbermann spoke on "To the Psychology of Menstruation," dealing with some psychologic aspects of menstruation

New York Council of Surgeons

Meetings of the New York Council of Surgeons were held on May 10 and 17 On May 10, Dr Charles W Frank, Bronx Hospital, spoke on "Obstetrical Difficulties," and on May 17, Dr Howard B Shookoff, physician in charge, Tropical Diagnostic Service, New York City Department of Health, gave a talk on "Diagnosis and Treatment of Common Parasitic Diseases"

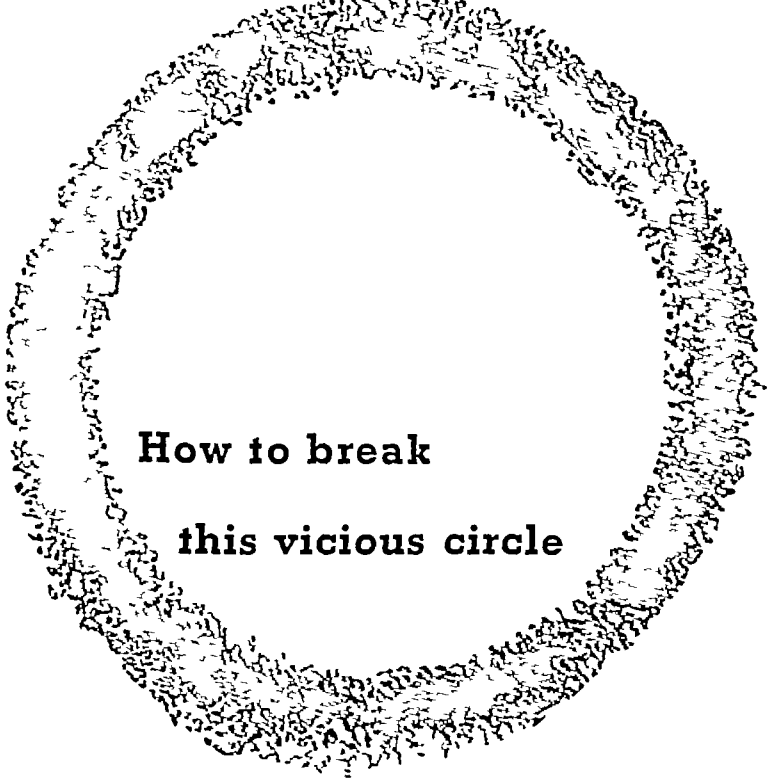
Association for the Advancement of Psychotherapy

"Disturbances in Acculturation" was the subject of a lecture given by Dr Benjamin Wolman, of Tel Aviv, Israel, at a meeting of the Association for the Advancement of Psychotherapy on May 20

New York State Society of Medical Technologists

The New York State Society of Medical Technologists held its second annual seminar under the auspices of the Metropolitan branch of the Society on May 21 and 22 in New York City Among the speakers were Dr Andrew Eggston, Dr Ralph Stillman, Dr Joseph Goldzieher, Dr George Papanicolaou, Dr William Singer, Dr Bret Ratner, Dr S Utrecht, and Dr Philip Levine

[Continued on page 1348]



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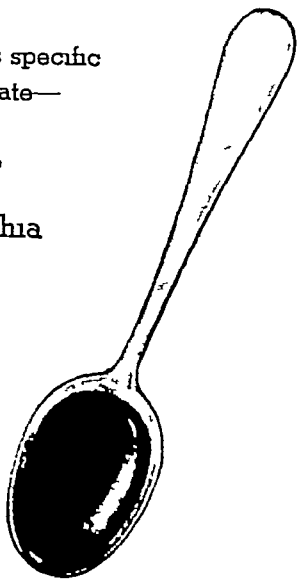
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[Continued from page 1346]

Cancer Teaching Day

Under the auspices of the Albany County and New York State Medical Societies, Albany Medical College, the Third District Branch of the State Medical Society, and the New York State Department of Health, Bureau of Cancer Control, a Cancer Teaching Day was presented in Albany on May 25 Among those addressing the meeting were Dr Harry S N Greene, Yale University School of Medicine, who spoke on "The Biological Differentiation of Malignant Tumors", Dr Harold W Dargeon, Memorial Hospital, New York City, on "Cancer in Childhood", and Dr George T Pack, Cornell University Medical College, on "The Diagnosis and Treatment of Sarcomas of the Soft Parts."

Future

American College of Chest Physicians

From June 2 through 5 the fifteenth annual meeting of the American College of Chest Physicians will be held at the Ambassador Hotel, Atlantic City, New Jersey The scientific assembly will begin at 9 00 A.M June 3 and will continue through June 5 It will include round-table luncheons, an x-ray conference, and two new features, a motion picture session devoted to diseases of the chest and at the end of each scientific session a ten-minute critical résumé concerning the recent developments in various aspects of chest diseases

American Otorhinologic Society for the Advancement of Plastic and Reconstructive Surgery

A stated meeting of the American Otorhinologic Society for the Advancement of Plastic and Reconstructive Surgery will be held June 6 at Chalfonte-Haddon Hall, Atlantic City, New Jersey, A dinner will be held at 6 00 P.M in honor of Dr Westley M Hunt, New York, honorary fellow, and will be followed by the scientific session Speakers will be Dr Herbert Conway, Cornell University Medical College, Dr Harry E Ehrlich, Mount Sinai Hospital, and Dr Irving B Goldman Their topics will be, respectively, "Reconstruction for Congenital, Posttraumatic, and Postneoplastic Deformities of the External Ear," "Plastic Surgical Considerations in the Treatment of Cancer of the Lip," and "Presentation of New Instruments—A New Nasal Splint"

American Neurological Association

The annual meeting of the American Neurological Association will be held in Atlantic City, New Jersey, June 13, 14, and 15 with headquarters at Chalfonte-Haddon Hall

Annual Conference of Health Officers and Public Health Nurses

The forty-fifth annual Conference of Health Officers and Public Health Nurses will be held in Lake Placid, New York, June 20 to 23 The Association of School Physicians will hold its annual meeting the opening day in conjunction with the general conference of public health administrators

PERSONALITIES

Honored

For completion of fifty years in the practice of medicine, Dr Anthony Bassler, founder and past-president of the National Gastroenterological Association, at a testimonial dinner on May 1 Dr Louis H Bauer, past-president of the New York State Medical Society, received the *Nassau Daily Review-Star* Award for 1949 for distinguished service to the community and to society The award was presented at the annual award dinner on May 18 by Dr R L Sesenich, president, American Medical Association

Elected

Dr Samuel Farrar Kelley, assistant professor of clinical surgery (otolaryngology), Cornell University Medical College, as president of the American Otorhinologic Society for the Advancement of Plastic and Reconstructive Surgery Dr Victor F Lief, Far Rockaway, as a fellow of the American College of Physicians

Appointed

Dr George P Berry, associate dean of the University of Rochester, School of Medicine and Dentistry, as dean of the Harvard Medical School Dr S Bernard Wortis, chairman of the department of psychiatry, New York University Medical College, to the National Advisory Mental Health Council

Retired

Dr Edwin P Kolb, as superintendent of the Suffolk Sanatorium, Holtsville, a position he had held for the last thirty-three years He will be succeeded by Dr Cecil Schultz, superintendent of the Orange County Sanatorium at Newburg

Speakers

Dr Merol E Brickner, chairman of the cancer committee of the Fulton County Medical Society, at a luncheon meeting of the Gloversville Lions Club on April 6 At the annual meeting of the National Tuberculosis Association, in Detroit during the first week in May, Dr J Maxwell Chamberlain, associate visiting surgeon, Bellevue Hospital, and Dr Herbert R. Edwards, executive director of the New York Tuberculosis and Health Association Dr Arthur Davis, secretary of the Warren County Medical Society, on compulsory health insurance at a meeting of St Anne's Sodality in Glens Falls on March 30 Dr Nathan C Foot, New York, on "Limitations and Pitfalls of Cytologic Diagnosis from the Clinical Standpoint" at the annual meeting of the Illinois State Medical Society on May 16 At a meeting of the Association for the Help of Retarded Children on April 29, Dr Arthur N Foxe, New York City Dr Louis C Kress, director of Roswell Park Memorial Institute, at the fifth annual convention of the Buffalo Branch of the New York State Society of Medical Masseurs on May 2 and at the joint meeting of the Niagara County exchange clubs on March 30 Dr Nathaniel Kwit, New York City, on "Rheumatic Fever and the Importance of Establishing Cardiac Clinics" at a meeting of the Westchester League for Cardiac Children on April 11 Dr Robert C Peale, Olean, representing

[Continued on page 1350]

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[Continued from page 1348]

the Cattaraugus County Medical Society, in a discussion on socialized medicine at a meeting of the Cattaraugus County Republican Club on April 5

Dr Frederick Reiss, associate clinical professor of dermatology and syphilology, New York University-Bellevue Medical Center, has been invited by the U.S Military Government, Office of Higher Education, to deliver a series of lectures on recent advances in dermatology and mycology at the Department of Dermatology, Free University of Berlin, Germany, during the month of July Dr Harold Warnock, deputy health officer, Rochester Health Bureau, and Dr Maurice Barnard, president, board of directors, Genesee Valley Medical Care, Inc, on March 30 at a meeting of the Rochester Kiwanis Club Dr Edward G Winkler, professor of obstetrics and gynecology, University of Buffalo, School of Medicine, April 10, on "Modern Trends in Obstetrics" as the last of a series of six lectures presented by the University as a community service

New Offices

Dr Samuel Lerman, general practice, in association with Dr E S Webster in Friendship Dr Carver Livingston, Sag Harbor, to join the staff of Southampton Clinic Dr Leon M Roe, relocation of offices from Canisteo to Hornell

COUNTY NEWS

Cayuga County

A meeting of the Cayuga County Medical Society will be held on June 16 at 7 00 P.M at the Owasco Country Club, Auburn The speaker will be Dr Harold G Wolff, associate professor of psychiatry, Cornell University Medical College Dr Wolff's topic will be "Headache" This is a program of postgraduate instruction arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York in cooperation with the New York State Department of Health.

Chemung County

Dr Louis C Kress, director of Roswell Park Memorial Institute, spoke at an open meeting on April 19, arranged by the Chemung County Chapter of the Field Army of the American Cancer Society and the Chemung County Medical Society Dr Morris Dreyfuss, Elmira, and Dr C Eugene Erway, Batavia, also spoke at meetings arranged by the Field Army on April 9 and 12, respectively

Dutchess County

Members of the Dutchess County Medical Society heard Dr John J Moorhead speak on the "Treatment of Fractures of the Surgical Neck of the Humerus" at a meeting on May 11 at the Hudson River State Hospital Pavilion. An informal dinner preceded the meeting

Jefferson County

Dr Jacob A. Mishkin, Watertown, was elected president of the newly formed Jefferson County Academy of General Practice at a meeting of the Academy held on March 24. Other officers elected were Dr George S Nellis, Watertown, vice-president, Dr Bennie Mecklin, Watertown, secretary, and Dr Arnold J Lee, Carthage, treasurer In addition to electing officers, the Academy formally adopted its charter and constitution and by laws.

Kings County

New officers of the Pediatric Section of the Medical Society of the County of Kings and the Brooklyn Academy of Medicine were announced recently as follows Dr Samuel Silber, president, Dr Jacob Rosenblum, vice-president, Dr Jacob J Lichterman, secretary, and Dr Irving Weinstock, treasurer

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A stated meeting of the Physicians Guild of Kings County was held on May 10 The date of the annual dinner of the Guild has been set for June 14.

Livingston County

At the March meeting of the Livingston County Medical Society, Dr George E Lynch, Avon, was elected president. Also named were Dr Anderson V Vickers, Mt Morris, vice-president, and Dr Roger Hemphill, Mt Morris, secretary-treasurer

Monroe County

Dr John H McGavern, Honeoye Falls, president, reported on the first assembly of the American Academy of General Practice, held in Cincinnati in early March, at the meeting of the Rochester regional chapter of the Academy Other delegates to the Cincinnati meeting who spoke at the Rochester meeting were Dr William Kober, Lima, Dr Charles Newton, Geneseo, Dr Gerald McQuire, Webster, Dr Niles G Madsen, Honeoye Falls, and Dr Gerald Manley of Geneseo

Niagara County

A regular monthly meeting of the Niagara County Medical Society was held on May 10 The featured speaker was Dr Henry Stallman, Veterans Administration, Buffalo, who gave a talk on "Changes in the Administration of the Medical Aspects of Veterans Administration"

On June 14 a dinner will be held by the Society to honor the physicians of Niagara County who have practiced fifty years or more The dinner will also be in honor of Dr William Hodge of Niagara Falls who has completed his sixtieth year in the practice of medicine

Onondaga County

Speakers at recent meetings of the Onondaga County Medical Society were as follows

April 5—Dr Alfred W Doust on the topic, "Conservation of Hearing Program in Syracuse," and Dr John R. Myers, on "The Rationales of Present-Day Treatment of Sinusitis"

May 10—Dr James L Wilson, professor of pediatrics, School of Medicine, University of Michigan, on "Progress in Treatment of Infections in Infancy and Childhood"

On May 19 a meeting of the Utica Academy of Medicine was held "The Physiological Principles in the Treatment of Renal Diseases" was the subject of a lecture delivered by Dr Arthur C Corcoran, Cleveland Clinic.

Oneida County

Members of the Oneida County Medical Society

[Continued on page 1352]

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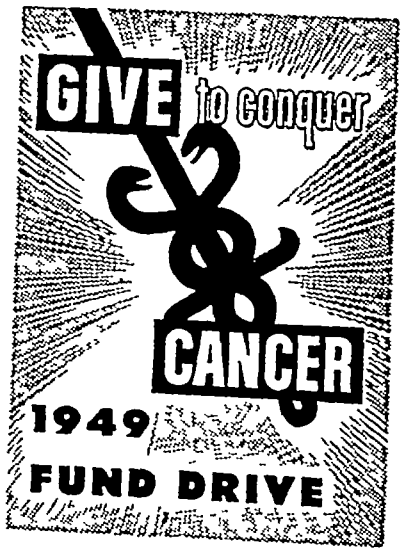
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[Continued from page 1350]

heard Drs Lester C B Spier, G A. Smart, and Monroe A McIver speak at a meeting of the Society on April 12 A dinner preceded the meeting

Ontario County

Dr Gustav Selbach addressed the members of the Canandaigua Medical Society at a dinner meeting on April 1 at the Hotel Canandaigua

A meeting of the Geneva Academy of Medicine was held on May 19 when Dr E Joseph Delmonico, professor of anesthesiology, Syracuse University College of Medicine, addressed the members on "Recent Advances in Anesthesia" The program was postgraduate instruction arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Queens County

A Teaching Day on Cardiovascular Diseases was presented on May 13 under the auspices of the Queens County Medical Society, the New York State Medical Society, and the New York City and State Departments of Health The program included the following scientific papers

"Heart Disease and Pregnancy—Medical Aspects"—Dr Edwin P Maynard, Jr, Long Island College of Medicine

"Heart Disease and Pregnancy—Obstetrical Aspects"—Dr J Thornton Wallace, Long Island College of Medicine

"Current Concepts of the Pathological Physiology of Congestive Heart Failure—Basis for Management"—Dr Ludwig W Eichna, New York University College of Medicine.

"Congenital Heart Disease—Diagnosis, Management, and Surgical Relief"—Dr David G Greene, University of Buffalo School of Medicine.

"Rheumatic Heart Disease"—Dr Leo M Taran, St Francis Sanatorium for Cardiac Children.

"The Use of Anticoagulants in Cardiovascular Diseases"—Dr William T Foley, Cornell University Medical College

At a meeting of the Rockaway Medical Society during March, Dr Burrill Crohn, Mount Sinai Hospital, spoke on "Recent Advances in the Treatment of Diseases of the Gastrointestinal Tract."

Richmond County

A meeting of the Richmond County Medical Society was held on May 11 at the Atlantic Inn, Grant City, Staten Island.

Saratoga County

Members of the Saratoga County Medical Society met jointly with the Saratoga County Dental Society and with the County Bar Association on April 7 when socialized medicine was discussed Following the joint meeting the County Medical Society adjourned to hold its own business session

Schenectady County

A panel discussion on the proposed county health unit in Schenectady took place during a meeting of the Schenectady County Medical Society on April 5 Dr Stuart F MacMillan, president of the Society, presided, and Dr Malcolm A Bouton, city health commissioner, was among the discussants.

The orchestra of the Schenectady County Medical Society gave a concert for the Scotia Rotary Club on March 29 under the direction of Dr D Glen Smith.

Steuben County

The spring meeting of the Steuben County Medical Society was held at the Baron Steuben Hotel, Corning, on April 14 Dr Joseph Godfrey, instructor in orthopedic surgery at the University of Buffalo, School of Medicine, gave a talk on "Management of Everyday Fractures"

Suffolk County

A lecture on "Physical Treatment in Psychiatric Diseases" was given at the April 27 meeting of the Suffolk County Medical Society A dinner and business meeting followed the scientific session

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ANNOUNCEMENT

The National Committee for Chile is now receiving gifts for the Library of the Medical School of the University of Chile at its new collection center in the Library of Congress, Washington The newer materials in the Library, including periodicals, books, and reference materials, were totally destroyed in the recent fire Medical periodicals of the last ten years and recent medical books are urgently needed Your contribution will be appreciated

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BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn, N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers

RECEIVED

Experimental Immunochemistry By Elvin A. Kabat, Ph D , and Manfred M Mayer, Ph.D Octavo of 567 pages, illustrated Springfield, Ill Charles C Thomas, 1948 Cloth, $8 75

The Medical Clinics of North America. Philadelphia Number November, 1948 Index 1946–1948 Published Bi-Monthly (six numbers a year) Cloth, $16 00 net, Paper, $12 net

The 1948 Year Book of General Medicine Edited by Paul B Beeson, M D , J Burns Amberson, M D , George R Minot, M D , *et al* Duodecimo of 821 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $4 50

Hope in Heart Disease. The Story of Louis Faugeres Bishop, M D By Ruth V Bennett Octavo of 307 pages, illustrated Philadelphia, Dorrance & Co , 1948 Cloth, $3 00

The Literature on Streptomycin 1944–1948 By Selman A Waksman, Ph D Octavo of 112 pages New Brunswick, Rutgers University Press, 1948 Cloth, $3 00

Formulary Bellevue Hospital By Bellevue Hospital Committee on Drugs and Formulary Octavo of 73 pages New York, *The New York Physician*, 1948 Paper, $1 75

For Americans Only By Samuel B Pettengill and Paul C Bartholomew, Ph D Duodecimo of 192 pages, illustrated New York, America's Future, 1944

Textbook of the Rheumatic Diseases Edited by W S C Copeman, M D Octavo of 612 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $12 50

Manual of Public Health Hygiene By J R Currie, M D , and A G Mearns, M D Third edition Octavo of 724 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $9 00

The Frontal Lobes Proceedings of the Association December 12 and 13, 1947, New York. [Res Publ Ass Nerv Ment Dis , Vol 27] Ed Bd., John F Fulton, M D , Charles D Aring, M D , and S Bernard Wortis, M D Octavo of 901 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $12 50

The Child in Health and Disease A Textbook for Students and Practitioners of Medicine Edited by Clifford G Grulee, M D , and R. Cannon Eley, M D Quarto of 1,066 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $12

Essentials of Gynecologic Endocrinology [with Sections on the Male] By Gardner M Riley, Ph D Octavo of 205 pages, illustrated Ann Arbor, Mich , Caduceus Press, 1948 Stiff paper, $3 00

Basic Principles of Psychoanalysis By A. A. Brill, M D Octavo of 298 pages New York, Doubleday & Co , 1949 Cloth, $3 45

Lung Dust Lesions Versus Tuberculosis By Lewis Gregory Cole, M D Quarto of 474 pages, illustrated. White Plains, N Y , American Medical Films, 1948 Cloth, $10

Cardiology By William Evans Octavo of 310 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $7 50

Anesthesia Principles and Practice. A Presentation for the Nursing Profession By Alice M Hunt Sextodecimo of 148 pages, illustrated New York, G P Putnam's Sons, 1949 Cloth, $2 60

Readings in the Clinical Method in Psychology Edited by Robert I Watson, Ph D Octavo of 740 pages New York, Harper & Bros , 1949 Cloth $4 50

Cancer of the Esophagus and Gastric Cardia. Edited by George T Pack, M D Octavo of 192 pages, illustrated St Louis, C V Mosby Co , 1949 Cloth, $5 00

Your Coughs, Colds and Wheezes. By Joseph D Wassersug, M D Duodecimo of 277 pages New York, Wilfred Funk, 1949 Cloth, $2 95

Shock, and Allied Forms of Failure of the Circulation. By H A. Davis, M D Octavo of 595 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $12

Handbook of Pediatric Medical Emergencies. Adolph G DeSanctis, M D Chairman, Publication Committee Duodecimo of 89 pages New York, New York Post Graduate Medical School and Hospital, 1948 Paper, $2 00

REVIEWED

The Diabetic's Handbook. How to Work with Your Doctor Treatment by Diet and Insulin. By Anthony M. Sindoni, Jr , M.D Octavo of 194 pages, illustrated New York, Ronald Press, 1948 Cloth, $3 00

This is a worthy addition to the growing series of handbooks for diabetics It is written simply and pointedly and will be of considerable aid to both patient and physician. The book removes ideas of taint and horror from diabetes and constantly emphasizes the truths of its treatability

MAURICE TULIN

Eskimo Doctor By Aage Gilberg, M.D , translated by Karin Elliott Octavo of 229 pages, illustrated New York, W W Norton & Co , 1948 Cloth, $3 00

Eskimo Doctor will charm laymen and physicians alike It is the account of a young Danish doctor's year among the Eskimos of Thule in Northern Greenland.

Gilberg, obviously an amiable young man (he plays the musical saw!), was enchanted by the simple people among whom he lived The reader will share his life with the greatest interest The rigors of a

[Continued on page 1356]

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BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers

RECEIVED

Experimental Immunochemistry By Elvin A Kabat, Ph D, and Manfred M Mayer, Ph D Octavo of 567 pages, illustrated Springfield, Ill Charles C Thomas, 1948 Cloth, $8 75

The Medical Clinics of North America. Philadelphia Number November, 1948 Index 1946–1948 Published Bi-Monthly (six numbers a year) Cloth, $16 00 net, Paper, $12 net

The 1948 Year Book of General Medicine Edited by Paul B Beeson, M D, J Burns Amberson, M D, George R Minot, M D, *et al* Duodecimo of 821 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $4 50

Hope in Heart Disease The Story of Louis Faugéres Bishop, M D By Ruth V Bennett Octavo of 307 pages, illustrated Philadelphia, Dorrance & Co, 1948 Cloth, $3 00

The Literature on Streptomycin 1944–1948 By Selman A. Waksman, Ph D Octavo of 112 pages New Brunswick, Rutgers University Press, 1948 Cloth, $3 00

Formulary Bellevue Hospital By Bellevue Hospital Committee on Drugs and Formulary Octavo of 73 pages New York, *The New York Physician*, 1948 Paper, $1 75

For Americans Only By Samuel B. Pettengill and Paul C Bartholomew, Ph D Duodecimo of 192 pages, illustrated New York, America's Future, 1944.

Textbook of the Rheumatic Diseases. Edited by W S C Copeman, M.D Octavo of 612 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $12 50

Manual of Public Health Hygiene By J R Currie, M D, and A G Mearns, M D Third edition Octavo of 724 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $9 00

The Frontal Lobes Proceedings of the Association December 12 and 13, 1947, New York. [Res Publ Ass Nerv Ment Dis, Vol 27] Ed Bd, John F Fulton, M D, Charles D Aring, M D, and S Bernard Wortis, M D Octavo of 901 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $12 50

The Child in Health and Disease A Textbook for Students and Practitioners of Medicine Edited by Clifford G Grulee, M D, and R. Cannon Eley, M D Quarto of 1,066 pages, illustrated. Baltimore, Williams & Wilkins Co, 1948 Cloth, $12

Essentials of Gynecologic Endocrinology [with Sections on the Male] By Gardner M Riley, Ph D Octavo of 205 pages, illustrated Ann Arbor, Mich, Caduceus Press, 1948 Stiff paper, $3 00

Basic Principles of Psychoanalysis By A. A. Brill, M.D Octavo of 298 pages New York, Doubleday & Co, 1949 Cloth, $3 45

Lung Dust Lesions Versus Tuberculosis. By Lewis Gregory Cole, M D Quarto of 474 pages, illustrated. White Plains, N Y, American Medical Films, 1948 Cloth, $10

Cardiology By William Evans. Octavo of 310 pages, illustrated. New York, Paul B Hoeber, 1948 Cloth, $7 50

Anesthesia Principles and Practice A Presentation for the Nursing Profession By Alice M Hunt Sextodecimo of 148 pages, illustrated. New York, G P Putnam's Sons, 1949 Cloth, $2 60

Readings in the Clinical Method in Psychology Edited by Robert I Watson, Ph D Octavo of 740 pages New York, Harper & Bros, 1949 Cloth $4.50

Cancer of the Esophagus and Gastric Cardia. Edited by George T Pack, M D Octavo of 192 pages, illustrated St Louis, C V Mosby Co, 1949 Cloth, $5 00

Your Coughs, Colds and Wheezes By Joseph D Wassersug, M D Duodecimo of 277 pages New York, Wilfred Funk, 1949 Cloth, $2 95

Shock, and Allied Forms of Failure of the Circulation. By H A. Davis, M D Octavo of 595 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $12

Handbook of Pediatric Medical Emergencies. Adolph G DeSanctis, M D Chairman, Publication Committee Duodecimo of 89 pages New York, New York Post Graduate Medical School and Hospital, 1948 Paper, $2 00

REVIEWED

The Diabetic's Handbook. How to Work with Your Doctor Treatment by Diet and Insulin By Anthony M Sindoni, Jr, M D Octavo of 194 pages, illustrated. New York, Ronald Press, 1948 Cloth, $3 00

This is a worthy addition to the growing series of handbooks for diabetics It is written simply and pointedly and will be of considerable aid to both patient and physician. The book removes ideas of taint and horror from diabetes and constantly emphasizes the truths of its treatability

MAURICE TULIN

Eskimo Doctor By Aage Gilberg, M D, translated by Karin Elliott Octavo of 229 pages, illustrated New York, W W Norton & Co, 1948 Cloth, $3 00

Eskimo Doctor will charm laymen and physicians alike It is the account of a young Danish doctor's year among the Eskimos of Thule in Northern Greenland

Gilberg, obviously an amiable young man (he plays the musical saw!), was enchanted by the simple people among whom he lived The reader will share his life with the greatest interest The rigors of a

[Continued on page 1356]

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[Continued from page 1354]

Greenland winter are set down with such faithfulness that this reviewer, at least, is convinced that he never wants to visit Greenland during the winter months

MILTON PLOTZ

Psychiatric Examination of the School Child. By Muriel Barton Hall, M D Octavo of 368 pages, illustrated. Baltimore, Williams & Wilkins Co, 1947 Cloth, $4 50

This book represents experience gained by the author in the practice of child psychiatry in England

The first portion is concerned with a brief history of child psychiatry and the method of history-taking The major portion deals with the description of disease and methods of diagnosis In the final chapters, therapy is outlined

The reviewer found the book very interesting and recommends it to those of the profession studying this field

STANLEY S LAMM

Diseases Affecting the Vulva. By Elizabeth Hunt, M D Third edition. Octavo of 211 pages, illustrated. St Louis, C V Mosby Co, 1948 Cloth, $7 50

This book merits the applause which two previous editions have received Written by a dermatologist, its chief interest to the gynecologist is the great number of skin diseases which may affect the vulva, the plates are excellent Other diseases are covered somewhat thinly

CHARLES A. GORDON

Blood Derivatives and Substitutes. Preparation, Storage, Administration and Clinical Results Including a Discussion of Shock, Etiology, Physiology, Pathology and Management. By Charles Stanley White, M D, and Jacob Joseph Weinstein, M D Octavo of 484 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $7 50

This comprehensive volume on plasma transfusion will be useful as a reference work to those specializing in the subject It would have been particularly valuable during the war, but in civilian life where blood is used in preference to plasma it will probably not arouse as much interest Since the book does not deal with whole blood transfusions, there is hardly any discussion of blood grouping or the Rh factor, unfortunately, this short discussion contains errors For example, on page 459, the incorrect notion is advanced that isoagglutinins can be neutralized by "opposite agglutinins" or "antagonistic isoagglutinins." In discussing reactions to plasma transfusions, less than a page is devoted to the very important complication of transfusion jaundice, and no mention is made of the fact that the best prophylaxis for this complication is to avoid large pools of plasma There is a lengthy and valuable discussion of shock and its treatment. All in all, this is a useful book which should find a place in the library of every blood and plasma bank.

A. S WIENER

The Principles and Practice of Modern Cosmetics Vol. II Cosmetic Materials. Their Origin, Characteristics, Uses and Dermatological Action. By Ralph G Harry Octavo of 479 pages, illustrated. London, Leonard Hill, 1948 Cloth, 35/-

This is the companion volume to *Modern Cosmetology* now in print in the United States by the Chemical Publishing Co, Brooklyn. Like its predecessor it is certain to become a necessary manual for dermatologists and cosmeticians who must have at hand the most authoritative work on the origin, characteristics, uses, and dermatologic action of such materials.

NATHAN THOMAS BEERS

Clinical Ophthalmology. For General Practitioners and Students. By H. M. Traquair, M D Octavo of 264 pages, illustrated. St Louis, C V Mosby Co, 1948 Cloth, $9 00

This little compend on ophthalmology is very useful for the purpose for which it was written It is well written and well printed

Doubtless, this small volume will be well received and will justify the inclusion of more illustrations in later printings

JOHN N EVANS

Biochemistry for Medical Students By William Veale Thorpe, Ph.D 4th ed Octavo of 496 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $5 00

The author's concept of what biochemistry encompasses is that it is the study of chemical processes in living tissue and not the chemistry of living tissues. He, therefore, regards it as a dynamic science concerned not only with the organic analysis of tissue structure but with their functions Thus, the author has successfully condensed into this small volume not only a discussion of biochemistry but also of the physiology of these biochemical agents. On frequent occasions he has ventured off into the clinical implications of many altered physiologic processes These discussions are, of necessity, brief and fragmentary but make for stimulating the interest of one starting on a medical career

W S COLLENS

Diagnosis in Gynaecology A Classification of Gynaecological Diseases Based on Aetiology and the Clinical Logic for Diagnosis By James V Ricci, M D Octavo of 259 pages Philadelphia, Blakiston Co, 1948 Cloth, $4.50

This well-planned text presentation is decidedly different Chapters are devoted to structures and organs, not topics This works out well, yet inevitably leads to some repetition as in endometriosis, for instance *Few would be willing to simplify our* spelling completely, yet Ricci's valiant effort to resurrect the defunct diphthongs *ae* and *oe* is astonishing Painstakingly written, this is a good book

CHARLES A GORDON

Principles Governing Eye Operating Room Procedures By Emma L Clevenger, R N Octavo of 215 pages, illustrated. St Louis, C V Mosby Co, 1948 Cloth, $5 50

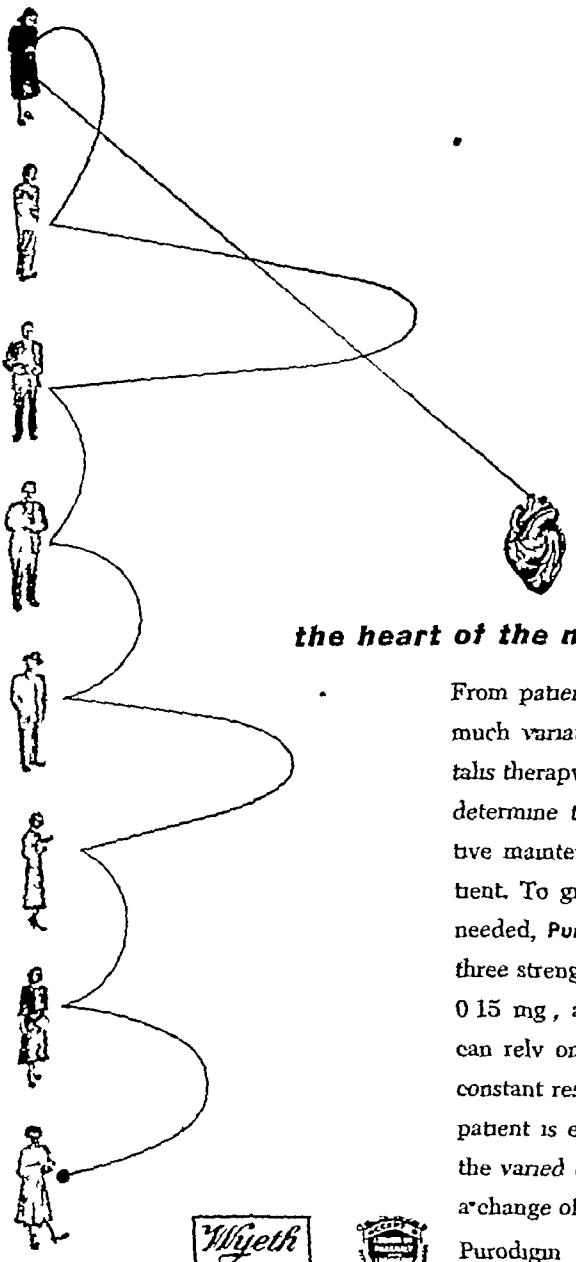
This book fills a long-felt want in the ophthalmologic library of both nurses and surgeons Material is presented in a useful and concise form

The reviewer does not feel that the value of the book has been greatly added to by the inclusion of preferences by the various surgeons and the instruments which they are employing at the present time in various procedures The progressive surgeon is seldom content to adhere year after year to the same instrument setup

Perhaps future editions will contain an appendix which will give a minute description or detailed drawing of each instrument so that its characteristic features and specific name can be learned by the beginner Also, such a detailed description would enable the surgeons and nurses to recognize advantages, disadvantages, and defects

As far as the reviewer knows, there is no source to which one may turn for a description of the peculiarities and the construction and dimensions of the various instruments such as cataract knives, iris forceps, etc

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JOURNAL OF MEDICINE



June 15, 1949

Scientific Articles

Hypertensive Encephalopathy and Cerebral Arteriosclerosis

Acute Coronary Occlusion Simulating Acute Abdominal Disease

Practical Aspects of Control of Dicumarol Therapy

Editorials

The Annual Meeting—1949

The Doctor as Citizen

Semiannual Index, January 1—June 15

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An Old Pewter Nursing Nipple of Sainted Memory but Not Sanitary



ATTRACTED by a reference to The Mead Johnson Collection of Ancient Nursing Bottles," a medical friend sent in to us as a loan the interesting pewter nipple shown above The nipple had been given to the physician by an elderly patient who had used it as a child in the 1840 s It had also been used by her mother, her grandmother, and other members of her family

In the eighteenth century, feeding bottles too, were made of pewter, which is an alloy of about 80 per cent tin, with copper and lead or antimony In the wealthier homes, feeding bottles and nipples were made of a special kind of pewter called Britannia metal, which contained tin, antimony and copper, and sometimes zinc It was more easily fashioned on the lathe and could be nickel-plated or silver-plated Those were the days before bacteriology, and when one examines the long, narrow, inaccessible channel in this pewter nipple through which the infant sucked his feeding, and sees that the channel could not possibly be kept clean, one wonders that the infant mortality rate of those presanitation days was not even higher

Nowadays, babies bottles and nipples are easily cleansed and sterilized Certified cow s milk contains a permitted maximum of only 10,000 bacteria per cubic centimeter Dextri-Maltose,* the carbohydrate of choice of so many physicians, is practically sterile Rigid control methods at the dairy and in the Mead Johnson Manufacturing Department, and care in the home combine to give modern babies sanitary protection not enjoyed by those babies that were fed through pewter nipples of sainted memory

It is significant to reflect that it was through the efforts of physicians that safe, pure milk and sanitary dairy control came to be standardized and practised, and that Dextri-Maltose* came into existence in response to the widespread demand of physicians for a carbohydrate that would give superior results in infant feeding

* Dextri-Maltose is the registered trademark of Mead Johnson & Company for its refined carbohydrates produced by enzymic action of barley malt on corn flour

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Findings from the Saratoga Spa records*



INHALATIONS

The results obtained in the treatment of 738 patients with inhalation at the New York State-owned Saratoga Spa show interesting tendencies

Marked relief of the condition treated was noted in 38 patients (5.2%), moderate relief in 468 patients (63.4%), temporary relief in 46 (6.4%), and no change in 185 (25%)

Conditions for which the treatments were given included sinusitis, coryza, bronchitis, chronic rhinitis, bronchial asthma, laryngitis, allergic rhinitis, hay fever, and pharyngitis The treatments consisted of the inhalation of finely nebulized saline-alkaline, naturally carbonated mineral waters, and medicated oils

The relief obtained bore a definite relation to the number of treatments taken In acute conditions, from four to six treatments were necessary to obtain consistent improvement while in chronic conditions, twelve to fifteen treatments were usually required.

Inhalations are taken without discomfort, which is an important factor in therapy

The safety of the therapy can be stressed Reactions of significance occurred in only three patients One patient may possibly have had a sensitivity to chlorenan, one developed an acute asthmatic paroxysm and the third noted a general reaction to epinephrine

Attention to the general condition of the patients suffering from respiratory disorders is an important factor Inhalations have a definite place in the general "cure" regimen of a spa.

* *As printed in the New York State Journal of Medicine 44 1214 (June 1) 1944.*

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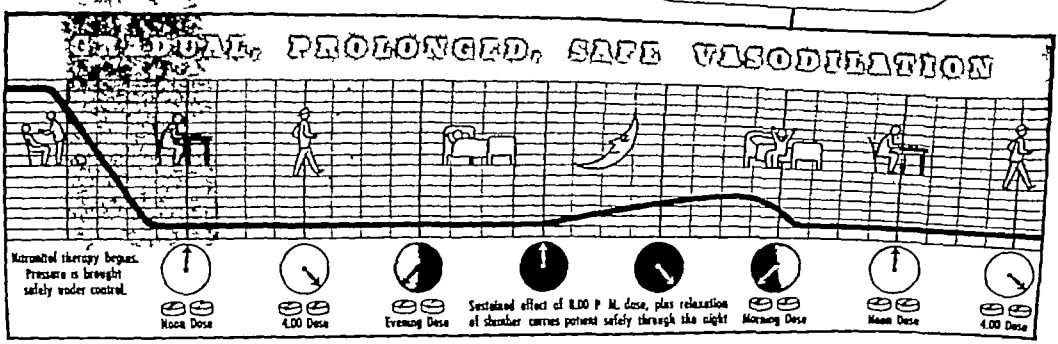
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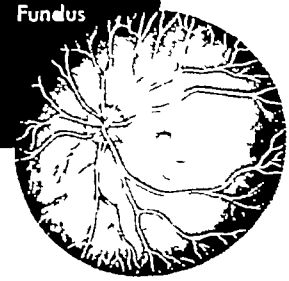
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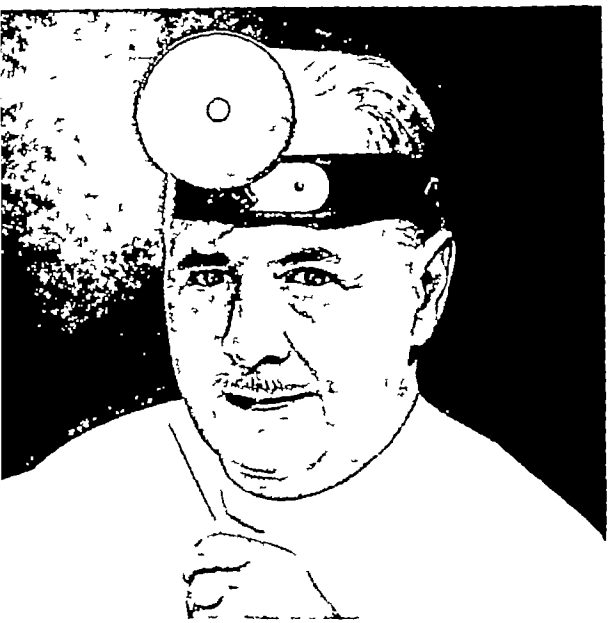
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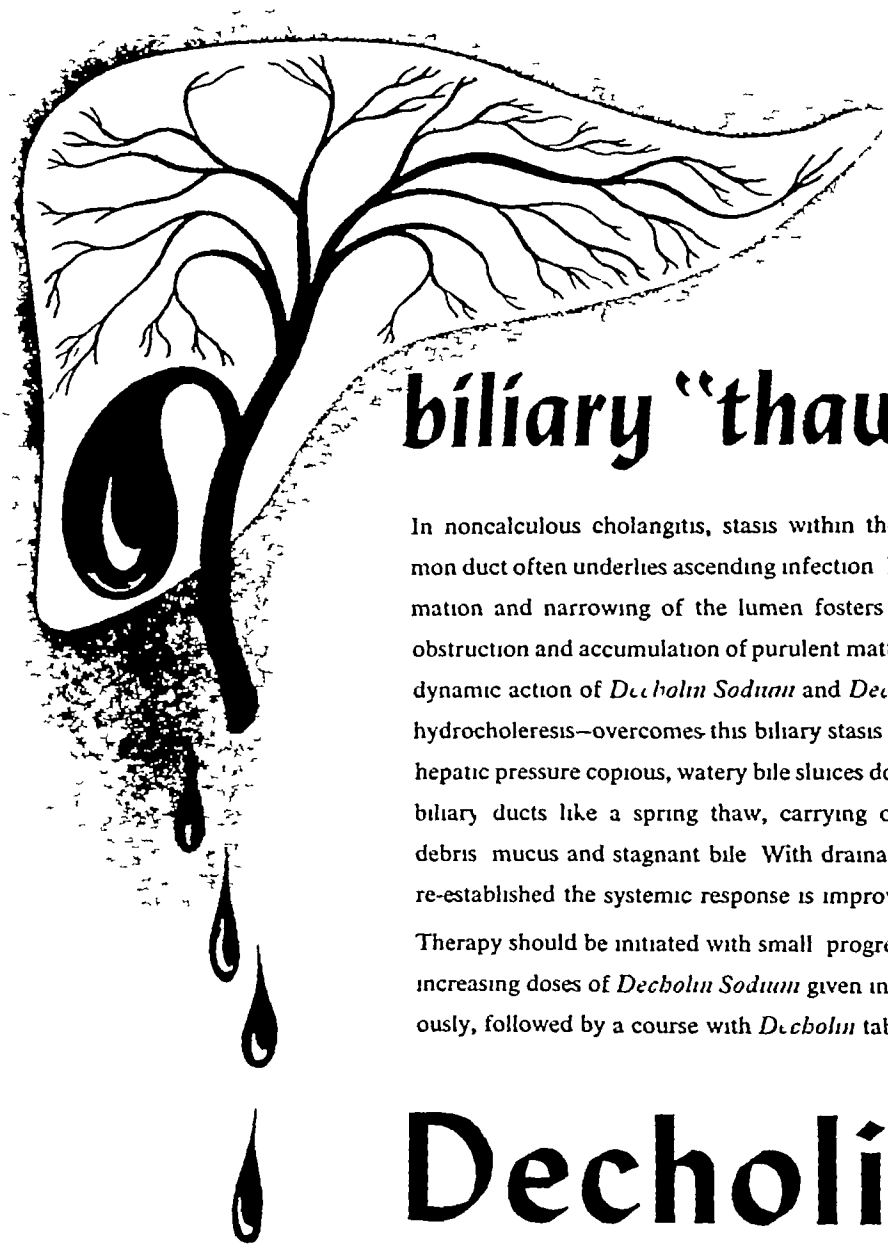
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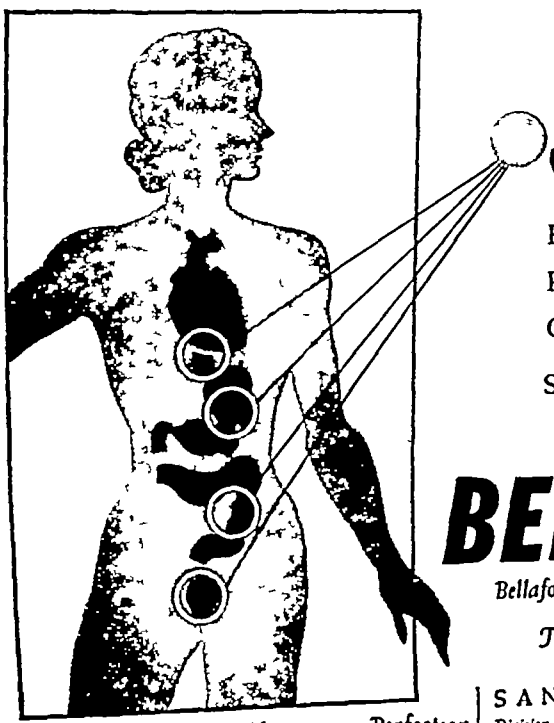
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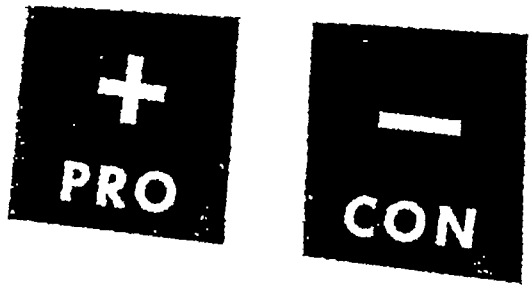
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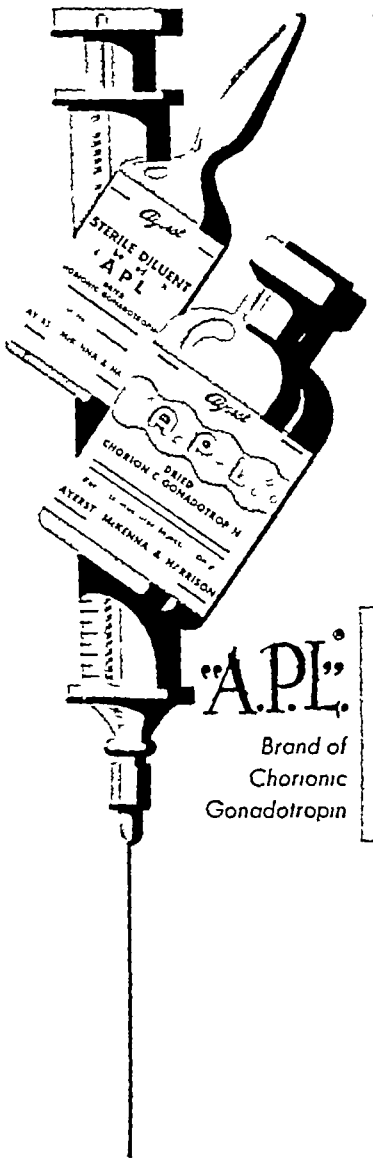
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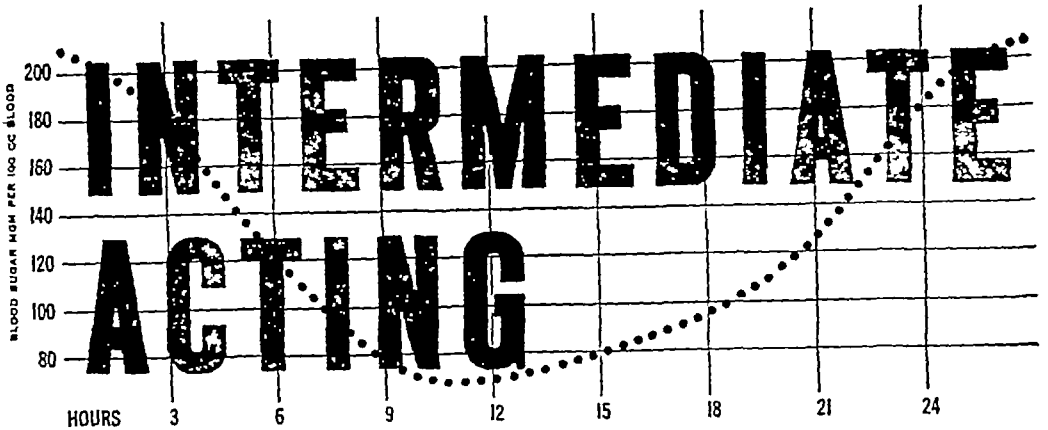
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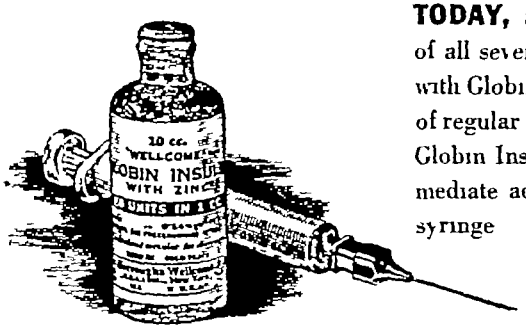
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TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B W & Co '—or with a 2 1 mixture of regular insulin protamine zinc insulin *Ready to use* Globin Insulin B W & Co ' provides the desired intermediate action without preliminary mixing in vial or syringe

In 10 cc vials U-40 and U-80



B.W & CO '—*a mark to remember*

1 Rohr J H and Colwell A R Arch. Int Med. 82 54 1948.
2. ibid Proc. Am. Diabet c Assn. 3 37 1948.

BURROUGHS WELLCOME & CO (U S A) INC. Tuckahoe 7 New York

Psoriasis and Neurodermatitis

New Concept

Psoriasis and neurodermatitis are treated systemically in a new therapy developed clinically by Perlman[1]

The medication used is a refined grade of undecylenic acid specifically selected for oral administration Preliminary reports on clinical usage show definite response in a majority of the cases treated.

Why and how this new form of undecylenic acid works is not yet known It is an odd numbered carbon atom unsaturated straight chain fatty acid and may play an important role in abnormalities in fatty acid metabolism

Description

The undecylenic acid used by Perlman and others for their cases is now available under the name of Declid Undecylenic Acid Capsules

Declid Undecylenic Acid is supplied in soft gelatin capsules, 0 44 g Uncapsulated the acid is an oily water insoluble liquid with a fatty odor and bitter taste

Tolerability

Declid Undecylenic Acid has been administered in large daily dosages over long periods without severe side reactions or toxic symptoms

After taking Undecylenic Acid, some patients complain of a bitter taste in the mouth mild nausea belching or dyspepsia These are relieved by antacids Increased bowel activity is sometimes noted When justified, reduced dosage or temporary cessation of treatment is advised These side effects in most cases, do not reappear when full dosage is resumed.

CLINICAL RESULTS

Favorable responses in 25 cases of psoriasis and neurodermatitis are reported by Perlman[1]

In the cases reported so far these improvements have been noted in varying degree in the different patients

1 Subsidence of itching

2 Complete or partial disappearance of lesions

3 The probable prevention of recurrence by maintenance dosage

In cases of psoriasis associated with arthropathies Perlman[2] noted in a preliminary report that arthritic pains diminished or disappeared following oral undecylenic acid treatment He has found relief and improvement from symptoms in 6 cases of arthritis and bursitis not complicated by psoriasis and urges further research by others

Dosage

Declid Undecylenic Acid is not a fast acting drug Quick response should not be expected The optimum dosage has not been determined The physician must evaluate

On Prescription Only at Drug Stores

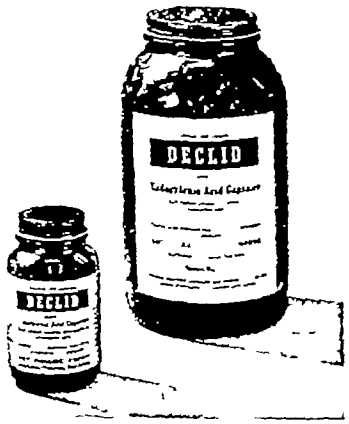
DECLID UNDECYLENIC

Treated Orally With New Drug

each case and adjust the dosage to the response

The capsules may be taken between meals, after eating or with food as best tolerated by the patient

Suggested dosage schedule *First week* Four Declid Capsules 3 times daily, *Second week* 6 Capsules 3 times daily *After second week* 8 to 10 Capsules 3 times daily if needed and continued for several months or until complete disappearance of lesions Tolerability is enhanced by taking the capsules with a carbon



Declid Undecylenic Acid Capsules, 0 44g each, are supplied in bottles of 100 and 1,000

ated beverage water or ginger ale

If high dosages are taken over long periods frequent urinalyses and blood counts are recommended

Adjunctive Therapy

The response to Declid Undecylenic Acid has been accelerated by external use of a medicated ointment, such as ammoniated mercury 3% and salicylic acid 3% in anhydrous lanolin petrolatum base

Contraindications

Oral therapy with Declid Undecylenic Acid is new, and much is still unknown about its effect on metabolism Therefore *it should be administered with caution,* and not to debilitated, diabetic or hypertensive patients or those with coronary or gall bladder symptoms

Caution

It must be emphasized that all the clinical work reported has exclusively employed only this particular grade of undecylenic acid Ordinary commercially available undecylenic acid supplied for *external uses* is not recommended, since its possible effects when taken internally are unknown

Declid Undecylenic Acid is to be dispensed only by or on the prescription of a physician Literature available on request.

REFERENCES

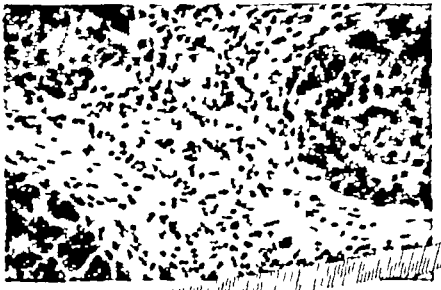
1 *Perlman H H Undecylenic Acid Given Orally in Psoriasis and Neurodermatitis J.A.M.A.* 139 *444 (Feb 12) 1949*

2 *Perlman H H Undecylenic Acid by Mouth in the Treatment of Arthritis and Bursitis Urol & Cutan Rev (Feb) 1949 P 103*

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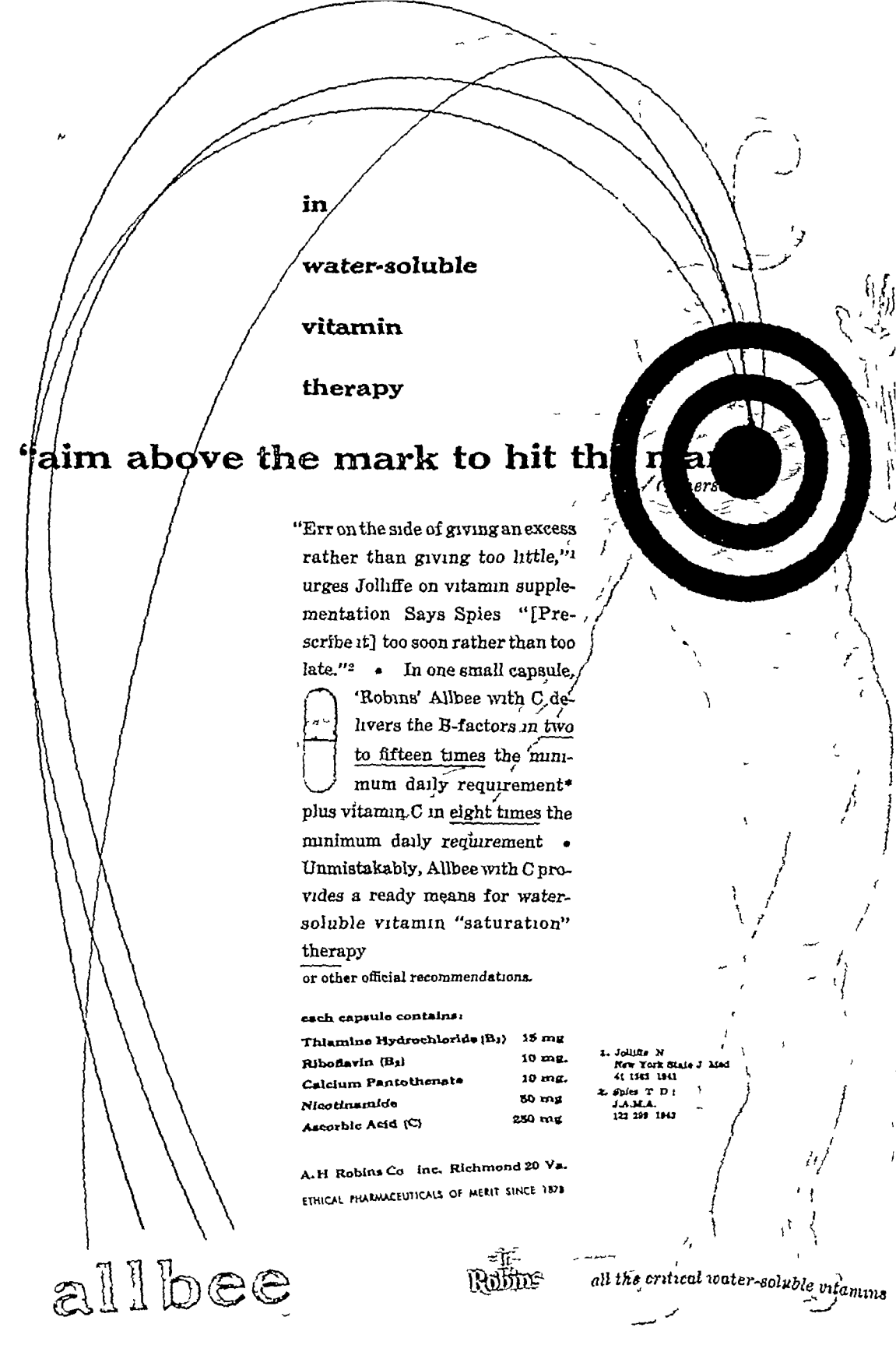
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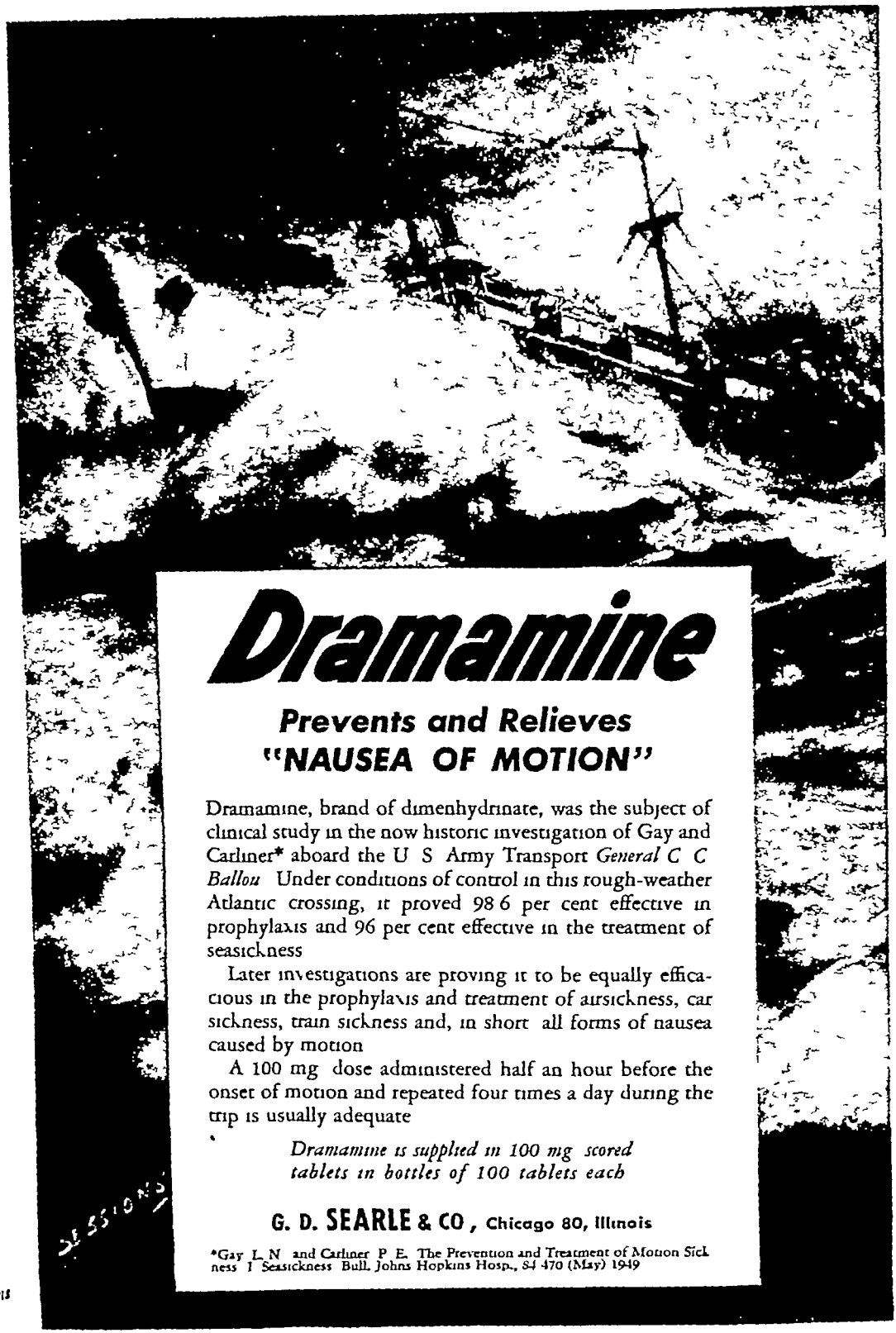
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1. Jolliffe N. New York State J. Med. 41: 1363, 1941.
2. Spies T. D.: J.A.M.A. 122: 298, 1943.

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Dramamine, brand of dimenhydrinate, was the subject of clinical study in the now historic investigation of Gay and Carliner* aboard the U S Army Transport *General C C Ballou* Under conditions of control in this rough-weather Atlantic crossing, it proved 98 6 per cent effective in prophylaxis and 96 per cent effective in the treatment of seasickness

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A 100 mg dose administered half an hour before the onset of motion and repeated four times a day during the trip is usually adequate

Dramamine is supplied in 100 mg scored tablets in bottles of 100 tablets each

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*Gay L N and Carliner P E. The Prevention and Treatment of Motion Sickness I Seasickness Bull. Johns Hopkins Hosp., 84 470 (May) 1949

Urinary pH No Problem *with*

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Urinary Antiseptic of Choice

MANDELAMINE* therapy is simple, it requires no complicated regimen involving adjuvant acidifying or alkalinizing agents to enhance efficacy or reduce toxicity

Carroll and Allen,[1] reporting the results of a clinical study comprising 200 cases, write

> "The administration of Mandelamine maintained an acid urine without dietary restriction or other drug therapy, excepting in those cases in which urea-splitting organisms were present."

MANDELAMINE'S effectiveness in both acute and chronic cases of urinary infection and its remarkable freedom from toxic reactions further commend it as the urinary antiseptic of choice

SUPPLIED: Enteric coated tablets of 0 25 Gm (3¾ gr) each, bottles of 120, 500, and 1,000

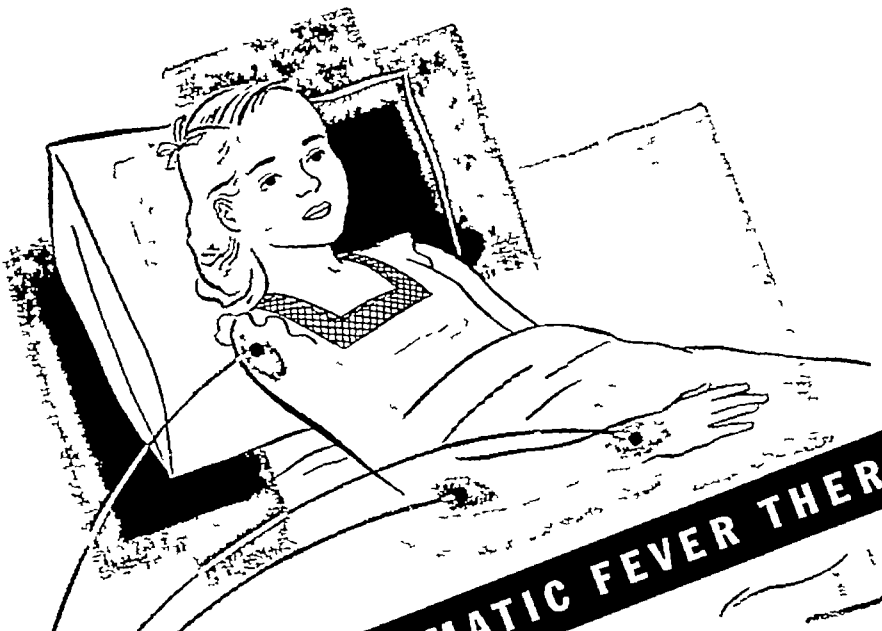
1 Carroll, G, and Allen, N H J Urol 55 674 (1946)

*MANDELAMINE is the registered trade mark of Nepera Chemical Co, Inc. for its brand of Hexydaline (methenamine mandelate)

6 OUTSTANDING FEATURES

1 No gastric upset
2 No dietary or fluid regulation
3 No supplementary acidification (except when urea splitting organisms occur)
4 Wide antibacterial range
5 No danger of drug fastness
6 Simplicity of regimen—3 or 4 tablets, t.i.d

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A SIGNAL IMPROVEMENT

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Sodium salicylate	5 gr	Calcium ascorbate (equivalent to 50 mg ascorbic acid)	1 gr
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Dieckmann, W. J , and Priddle, H D Anemia of Pregnancy Treated with Molybdenum-Iron Complex, Amer J Obstet. & Gynecol , (March) 1949

Dieckmann and associates recently undertook an evaluation of molybdenized ferrous sulfate (Mol-Iron) in anemia of pregnancy—a relatively resistant type of anemia

A carefully selected group of patients was given Mol-Iron in a dosage of 2 tablets 3 times daily, a comparable group of patients who received no iron medication served as controls

FINDINGS: "The patients who were treated showed a rapid increase in hemoglobin and hematocrit with a mean at term of 11 8 Gm per 100 ml and 36 volumes per cent—high figures for pregnant patients The mean for the present control group is 10 7 Gm of hemoglobin per 100 ml. and a hematocrit of 32 6 volumes per cent (at term) At six weeks post partum, the patients who had been on molybdenum-iron had a mean of 12 2 Gm per 100 ml as compared with 11 2 for the present (control) group "

COMMENT: "We have never had other iron salts so efficacious in pregnant patients Our results with the molybdenum-iron complex have been so striking that, if the patient has taken this medication for three weeks and shown no significant increase in the hemoglobin concentration, the therapy is stopped and a more extensive study (bone marrow biopsy, gastric analysis, reticulocyte count, etc) made to determine the cause of the anemia "

SUMMARY: "We believe that the value of this molybdenum-iron complex has been demonstrated as being very effective in increasing the hemoglobin of pregnant patients who are anemic "

ADVANCE IN ANEMIA THERAPY

Talso, P J Anemia in Pregnancy, J Ins Med, 4 31-34 (Dec -Jan -Feb) 1948-1949

The encouraging results obtained with molybdenumized ferrous sulfate in the microcytic hypochromic group indicate a better prognosis in these conditions in the future with a resultant improvement in maternal health generally '

Chesley, R F, and Annitto, J E Evaluation of Molybdenized Ferrous Sulfate in the Treatment of Hypochromic Anemia of Pregnancy, Bull Margaret Hague Maternity Hospital, 1 68-75 (Sept) 1948

" molybdenized ferrous sulfate produced a substantially more rapid therapeutic response than ferrous sulfate, the difference in response being statistically significant Addition to ferrous sulfate of either liver-stomach extract or folic acid did not potentiate the action of the iron salt

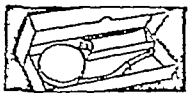
None of the patients treated with molybdenized ferrous sulfate complained of more than mild digestive symptoms related to the medication However, 8 per cent of the patients originally selected for treatment with ferrous sulfate had to be withdrawn from the study because of consequent digestive up-sets

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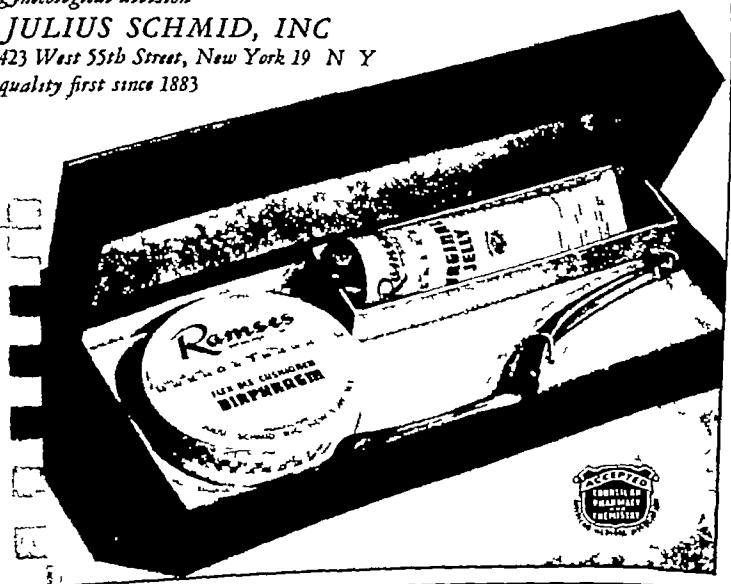
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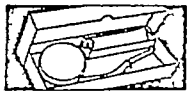
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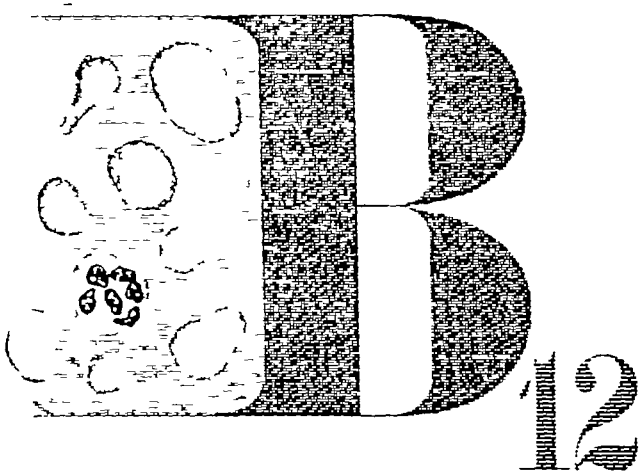
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✓	Free from Mucosal Irritation

Phospho-Soda (FLEET)	SIDE EFFECTS
✓	Absence of Constipation Rebound
✓	No Development of Tolerance
✓	Safe from Excessive Dehydration
✓	Nonhabituating
✓	No Disturbance of Absorption of Nutritive Elements
✓	Causes no Pelvic Congestion
✓	No Patient Discomfort

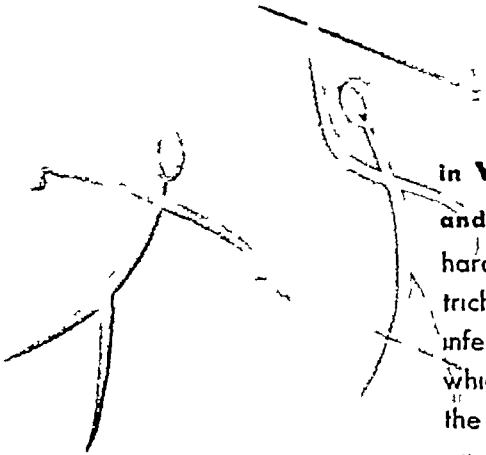
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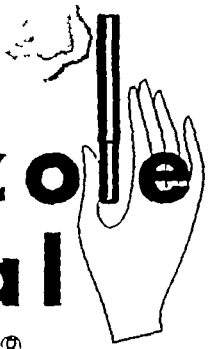
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for Urinary Tract Infection

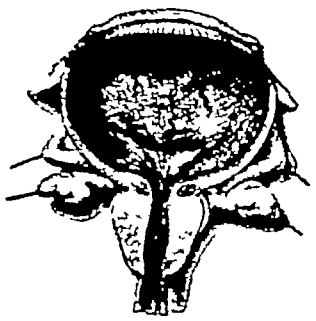


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from distressing

SYMPTOMS



Prompt and effective relief from distressing symptoms of urinary tract infection such as urinary frequency, and pain and burning on urination, can be achieved in a high percentage of patients through the action of orally administered Pyridium

With this *safe*, easily administered urinary analgesic, physicians can provide their patients with almost immediate relief from symptoms during the time that specific therapeutic measures are directed toward correcting the pathologic condition

Pyridium is virtually nontoxic in therapeutic dosage and can be administered concomitantly with streptomycin, penicillin, the sulfonamides, or other specific therapy

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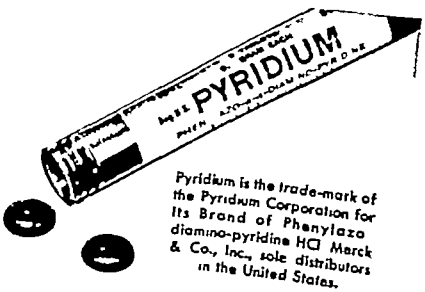
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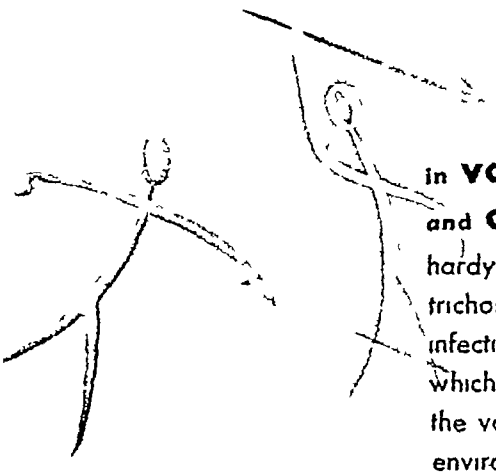
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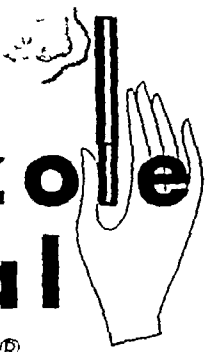
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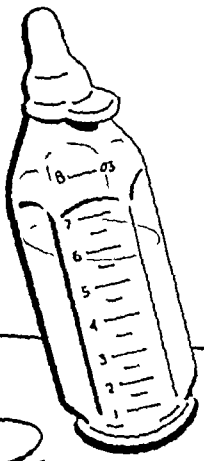
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**Page 51, Infant Nutrition Jeans and Mariott, 1947*

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Dillane, W B. et al. Treat. Serv Bull. 2 47 1947 • Downing J G et al. J A. M. A. 133 299 1947 • Downing J G Am. Pract. 2 357 1948 • Downing J G et al. New England J Med. 239 62 1948 • Eichenlaub F J et al. M. Ann. District of Columbia 17 452 1948 • Johnson H. M. Arch. Dermat. & Syph. 57 348 1948 • Miller J et al. New York State J Med. 47 2316 1947 • Robinson H. M. et al. South. M. J 40 409 1947



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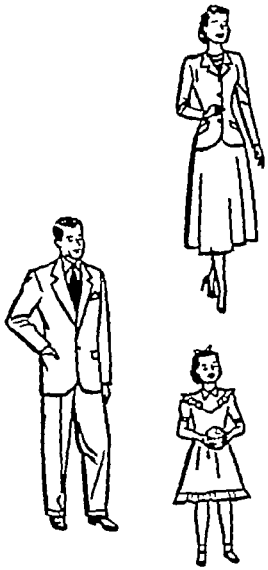
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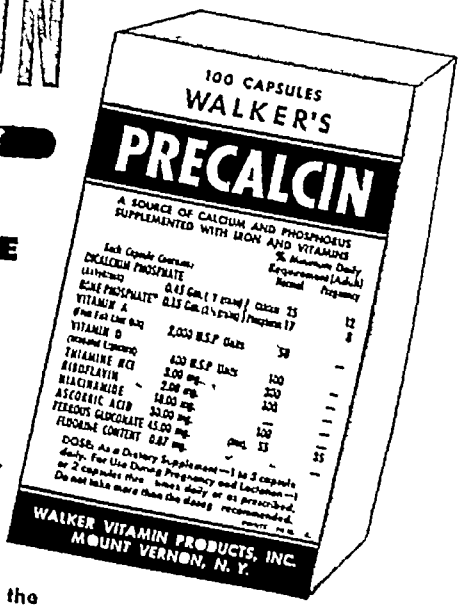
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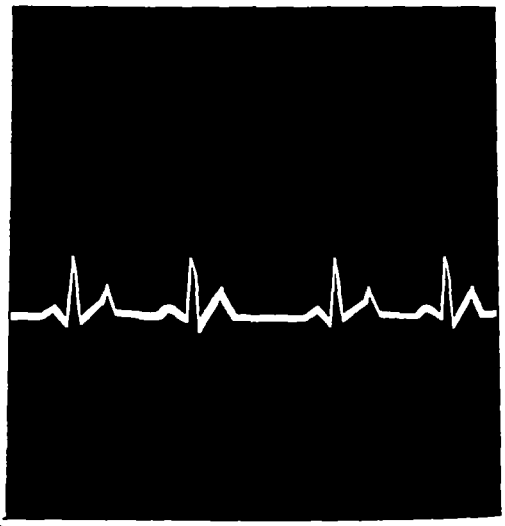
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Editorials

The Annual Meeting—1949

The successful 143rd Annual Meeting of the Medical Society of the State of New York was concluded on May 6 at the City of Buffalo, with an attendance of 2,500 persons, 1,609 of these being physicians, and 538 others, doctors' wives, medical students, and interns, together with 335 exhibitors The Convention Committee deserves great commendation for the arrangements at the Hotel Statler

During the sessions of the House of Delegates the always difficult matter of processing the large volume of resolutions constituting the greater part of the official business of the House was much facilitated by the excellent corps of typists available In addition, facilities were made available by the editorial staff of the JOURNAL whereby all resolutions could be edited. This procedure reduced materially purely clerical errors, overlong preambles, and simplified the onerous work of reference committees

The increasing work of the House necessitated one evening session lasting until 11 30 P M. We submit that such a legislative day commencing at 9 00 A M. is too long a session. Volume of debate on more and more controversial issues increases year by year Thorough discussion of such issues is of course necessary Perhaps it may become essential to prolong the sessions of the House to three full days in view of the increasing load of work being thrown on the reference committees The question deserves some consideration. Yearly the verbatim minutes also increase in volume This poses the serious problem of increased cost in publishing a supplement to the JOURNAL

It seems incontrovertible that the greater ramifications of formal medicine into the fields of insurance, legislation, public relations, publishing, social welfare, mental health, school health, and workmen's compensation, to cite but a few examples, are producing more complex problems as the years pass by With but one meeting a year when all county society delegates assemble to debate issues of prime importance, debate should not be unduly restricted, even if this means a lengthened session of the House With revision of the Constitution and By-laws in contemplation, this subject might well receive close attention.

Too much commendation cannot be given to the hard-working officers and delegates who labored hour after weary hour to get the

business of the House done Especially, the reference committees deserve the unrestricted thanks of all for their conscientious and thorough hearings, their strict attention to their allotted business, and the general excellence of their reports

It was especially heartening to observe the large proportion of younger physicians in the roster of delegates The gallant phalanx of "older young men" who during the war years and after carried the heavy burden of responsibility was no less in evidence, reduced perhaps in numbers but not in keenness of vision and physical vitality But the newer delegates, many of them veterans of the War, gave certain promise of assuming their responsibilities seriously, without whom the affairs of formal medicine could not long endure

Let them be vigilant, having in mind the words of Cecil Rhodes "So little time, so much to do"

The Doctor as Citizen

Is modern training for a medical career destructive of good citizenship? In theory, no, in practice, yes, with certain reservations

The scope of modern medicine has increased with such incredible rapidity that training of candidates for the doctorate has had to be intensified and compressed within the lengthened period, starting with premedical training and ending with the actual entry of the individual into practice Higher standards, more exacting academic requirements, internships, residencies, Boards in the various specialties—while indisputably producing doctors of greater skills—do so at a price

Part, at least, of that price is the loss to the nation, in many cases, of an interested citizen Almost from the time he starts his premedical training, the candidate in medicine becomes isolated from the ordinary affairs of the community When science was rudimentary, there remained time for the humanities, the learned man could still interest himself in the affairs of the community, the laboratory had not yet engulfed him In modern times the forces of his chosen career, however, are largely centripetal, driving him from the outside in, isolating him in the laboratory, insulating him in the college, and segregating him in the postgraduate schools and hospitals in a manner and to a degree that was never contemplated in the past and is only slightly comprehended now

From the beginning of his premedical studies this progressive isolation of the student from the community and its affairs, except in rare instances, places him in an atmosphere of unreality Little conscious of the background, the history, the evolution of the art and science of the profession he is to practice, he is in these times surrounded from the beginning of his medical studies with "faits accomplis," schools, endowments, libraries, hospitals, equipment of all kinds, in the development of which he has had no part

The student then is imbued with the pride and power of the mere tools and technics of his profession, the perfection of which he admires, since such perfection contributes subtly to his sense of satisfaction in having chosen a career in medicine, the sense of power to heal is as real as the sense of power to rule or to destroy, and the pride of instruments and drugs, of hospitals and schools can be as destructive of real humility as a large legacy from a rich uncle

What sense of obligation to the past from which this perfection has flowed is inculcated in the student? Little, nor none at all. What does the modern student-physician have of that real humbleness of spirit which prompted Ambrose Paré to write in his war-time notebooks, "I bound up his wounds and God cured him?" Arrogance, false pride, and professional isolation from the world of well people have put the student-physician in an equivocal position Even before he begins his own practice, the demands and pressures of his professional studies have precluded for the most part his active participation in community affairs, he knows almost everything except his fellow man

Also, he, only with great difficulty, can afford to marry, because of the financial drain of his education He must marry late if at all and must abridge his family life in the interests of the public demand for his services twenty-four hours a day, seven days a week, including holidays

The projected greater centering of medical practice about the hospital, as many advocate, will be an almost ideal means of removing not only the student-physician but the practicing doctor, also, from the last few contacts with the community of well people Are physicians of the future to inhabit a kind of limbo, to become detached from all ties of citizenship, serving neither on juries, nor as firemen, retaining perhaps a brief obligation for military service as a kind of appendix to justify their citizenship together with the payment of their taxes?

Current Editorial Comment

Occupational Cancer. An article has come to our desk under the title "Cancer in the Factory"[1] It is at once interesting and alarming and we doubt that either the medical profession or the general public is aware of the picture that it paints

Every medical student knows that, in 1775, Mr Percival Pott described cancer of the scrotum occurring in chimney sweeps and suggested that it might be due to the action of accumulations of soot During the next 100 years, paraffin and shale oils, pitch and tar were added to the list of chemical causative agents of cancer of the skin

During the present century, miners' deaths in Germany from cancer of the lung have been ascribed to radioactive ore that they were working Most of us remember the "radium disease" that killed so many young women workers on luminous watch dials

The United States Public Health Service has produced a chart of carcinogenic substances which includes among physical agents—alpha, beta, ultraviolet, x- and gamma rays Likewise the following

Chemical (inorganic)—arsenic, chromates, nickel carbonyl, asbestos, and beryllium The evidence as to beryllium is conflicting

Chemical (organic)—benzol, aromatic amines, polycylic hydrocarbons, soot, carbon black, tar and pitch, paraffin oil, shale oil, mineral oils, anthracene oil, creosote Aniline, azo-dyes and estrogens are regarded as debatable

Parasitic—schistosma hematobium, viruses Clonorchis sinensis is debatable

Medical experts agree that cancer should be a reportable disease, and that compensation laws must be amended to allow for occupational cancer

Questions that arise are "How widespread is this affliction?" Eight thousand cases have already been observed in workers in various industries, affecting many different bodily organs How long and how intense an exposure to these agents will produce cancer in humans? What is the latent period before symptoms appear? Just what happens when the agent comes in contact with human tissue? Does it act directly on the tissue? Does it change the tissue so as to endow it with carcinogenic properties? Does it cause functional change in the liver or endocrine organs, which then generate cancer? Briefly, what causes cancer?

The article concludes

> "Man has already paid part of his penalty for what we call progress He must begin now to pay in the coin of responsibility Having exploited the environment for the sake of the good life, he must now come to terms with it for the sake of a better life"

Medical Program of the Atomic Energy Commission Under the above title Dr Shields Warren of Boston outlines what is being done and what is contemplated by the Atomic Energy Commission in the medical sciences, which constitute one half of the total number of individual projects [1] He believes that the development of antibiotics, the impact of social legislation, and the advent of atomic energy have brought more profound changes in scientific medicine during the past six years than any

[1] Robinson, Marion Survey (Jan.) 1949

[1] Warren Shields, M.D J.A.M.A. 138 1227 (Dec 25) 1948.

[Continued on page 1406]

DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health
William A Brumfield, Jr, M D, Editor

Admission of Patients to Public Tuberculosis Hospitals

The fundamental purpose of tuberculosis hospitals is, of course, to provide adequate segregation and treatment for tuberculosis patients Such medical care is one of the most important elements of the tuberculosis control program

Under the provisions of the Public Health Law, in New York State tuberculosis hospital care and treatment which is provided by the State or by any county or city is available without charge to any person in need of such care who has acquired State residence (one year of continuous residence in the State preceding the date of application)

In the upstate area, public tuberculosis hospital care is provided by seven State tuberculosis hospitals, 22 county tuberculosis hospitals, and one city tuberculosis hospital Hospital care for New York City residents is provided in 10 public tuberculosis or general hospitals and a number of private tuberculosis or general hospitals

The following is a brief summary of the procedures for the admission of patients to public tuberculosis hospitals

State Tuberculosis Hospitals The State tuberculosis hospitals are primarily for residents of certain specified counties in each of the State hospital districts (see below), but patients from other parts of the State, including New York City, also may be admitted if suitable beds are available

Hermann M Biggs Memorial Hospital, Ithaca, serves Cayuga, Cortland, Schuyler, Seneca, Tioga, Tompkins, Wayne, and Yates Counties
Mount Morris Tuberculosis, Mount Morris, serves Allegany, Genesee, Livingston, Ontario, Orleans, Steuben, and Wyoming Counties
Homer Folks Tuberculosis Hospital, Oneonta, serves Chenango, Delaware, Fulton, Greene, Lewis, Madison, Montgomery, Otsego, Putnam, Schoharie, and Sullivan Counties
Ray Brook State Tuberculosis Hospital, Ray Brook, serves Clinton, Essex, Franklin, Hamilton, and St Lawrence Counties
Onondaga Sanatorium, Syracuse, serves Onondaga County
Broadacres Sanatorium, Utica, serves Oneida County
J N Adam Memorial Hospital, Perrysburg, serves Erie County

Application for admission of patients from the counties in the State hospital districts may be made to the director of the State hospital by (1) a private physician or health officer (2) the patient or a member of his family, or (3) a public welfare official

A patient living in a county which is not included in a State tuberculosis hospital district may be admitted to a State hospital only when suitable facilities are not available locally or when the facilities of the State hospital are particularly suited for the type of care and treatment indicated In such instances, applications for admission may be made to the director of the State hospital by (1) a superintendent of any county or city tuberculosis hospital, (2) the New York City Department of Hospitals for residents of New York City, (3) a hospital admission agency or any other similar agency authorized for the purpose by a county board of supervisors, or (4) the State Commissioner of Health or his designated representative

Other Than State Tuberculosis Hospitals. Applications for the admission of patients to hospitals other than those operated by the State may be made by a private physician, health officer, patient or member of his immediate family, or public welfare official In areas served by county or city tuberculosis hospitals, such applications should be made to the superintendent of the appropriate public tuberculosis hospital For residents of New York City, the application should be made to the Tuberculosis Admission Bureau of the New York City Department of Hospitals

Applications for residents of Erie County should be made to the Erie County Department of Health, for residents of Albany, Washington, and Westchester Counties to the respective county departments of public welfare (Applications for residents of New Rochelle should be made to the City Department of Public Welfare)

When tuberculosis hospital care and treatment through any of the foregoing channels appears to be unobtainable, applications may be made to the State Commissioner of Health



CARLTON E. WERTZ, M.D.

President-Elect

Medical Society of the State of New York

THE new President-Elect of the Medical Society of the State of New York, chosen at the 143rd annual meeting held May 2 to 6, 1949, in Buffalo, is Dr Carlton E Wertz, a native of Rochester, now residing in Buffalo

A graduate of the University of Buffalo School of Medicine in 1915, Dr Wertz interned at the Deaconess Hospital, Buffalo, where he later became

attending surgeon From 1916 to 1917 he served with the National Guard on the Mexican Border Dr Wertz is now, in addition to his post at Deaconess Hospital, consulting surgeon at the Edward J Meyer Memorial Hospital in Buffalo and at the J N Adam Memorial Hospital in Perrysburg

Dr Wertz is a past-president of the Medical Society of the County of Erie and past-president of the Buffalo Academy of Medicine For more than ten years he has been actively interested in the development of voluntary nonprofit medical care insurance and now is president of the Western New York Medical Plan, which covers eight western New York counties

He is a member of the Erie County Medical Society Workman's Compensation Board, a position he has held since 1937 He has been a member of the Council of the Medical Society of the State of New York for the past five years and is chairman of its Committee on Economics In addition, Dr Wertz is a commissioner of the Associated Medical Care Plans

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Current Editorial Comment

[Continued from page 1403]

period since the discovery of bacteria or the invention of the microscope What atomic energy may bring in the development of heat and power for the propulsion of ships and aircraft lies in the future The research tools it provides at the present time are overwhelming

Ionizing radiation may affect the body in two ways external radiation as from the conventional x-ray tube, or as internal radiation from the administration of radioactive phosphorus From an examination of a cell or tissue, there is no way to tell the difference between radiation effects produced by neutrons, by 200 kilovolt roentgen rays, or by the gamma rays of radium The chief effect is assumed to be through interference with the nucleic acid metabolism of the cell In radioactive isotope therapy, an attempt is made to take advantage of selective localizations, such as the specific affinity of bone and phosphorus, or thyroids and iodine

In determining the therapeutic value of any radioactive isotope, one must consider the inherent toxicity of the substance, the half-life of the material, the degree of localization, limit of region effectively irradiated and reasonably high specific activity of the element, preferably 1 millicurie per milligram of element Other limitations exclude all but a relatively few substances that fulfill all these desirable criteria Among the most useful are phosphorus 32, iodine 131, and sodium 24 for cancer research and therapy Cobalt 60 is interesting, its gamma radiations being essentially the same as those from radium For its half-life of five and three-tenths years it is nontoxic, it does not emit alpha particles, and it is not stored indefinitely in bone, like radium and radon

To help relieve the dearth of scientific personnel, a medical training program is developed in the medical and allied sciences It provides up to one hundred predoctoral fellowships annually for one year, and they are renewable Postdoctoral fellowships annually will provide for seventy-five, for a period of two years, and are not renewable

FACTS ABOUT NUTRITION

Prepared by the School of Nutrition, Cornell University, Ithaca
Norman S Moore, M D , Editor

Anorexigenic Drugs

When the appetite mechanism of an individual is perfect, an even balance between caloric intake and energy expenditure occurs, and the weight of that person remains fairly constant Eating habits of people, as a rule, are established by middle age, consequently most persons gain weight slowly during the fourth and fifth decades, as their energy expenditure declines The increase in weight is usually gradual and not excessive Some people have accumulation of excessive weight whether they are of young or middle age It was pointed out in the preceding article that eating as a means of relieving tension frequently is responsible for obesity [1] It is now accepted by most investigators of weight problems that psychogenic factors are more usual in the development of obesity than are physical ones [2] The treatment of obesity, in addition to other measures, must provide patients with ways to relieve tension and to compensate for unhappiness other than by eating The doctor must help his patient make satisfactory adjustments to emotional distress before he prescribes a specific regime Because obesity occurs only from the consumption of more calories than one expends daily for energy, drugs remain adjuncts to other aids designed to lower the number of calories taken

Nathanson in 1937 reported that obese patients with narcolepsy lost weight following administration of amphetamine sulfate [3] Following this report, considerable interest was shown in the anorexigenic effect of this drug Later, other investigators called attention to a similar effect produced by other drugs whose basic structure contains the 2-aminopropane radical [4,5] All of these drugs act as cortical stimulants All of them depress the appetite to some extent, some more than others All of them raise slightly the basal metabolism, but this effect appears not to be their mechanism of action All drugs in this group may give undesirable effects Sufficient literature has accumulated to allow evaluation of these drugs in terms of being efficient adjuvants in weight reduction, also to judge them in terms of their undesirable effects

There is no uniformity of belief regarding how these drugs exert their anorexigenic properties Harris *et al* report experimental evidence in humans and dogs that these drugs exert their effect by action on the sympathetic nervous system [5] Another point of view regarding mechanism of action is expressed by Lesses and Myerson, who believe that they decrease a desire for food by increasing hedonic tone, i e , they stimulate interest in other matters which give satisfaction and a broader interest [6] Such a concept explains the tendency for these drugs to be more effective appetite inhibitors for obese patients than for people of normal weight and supports the generally accepted theory that many unsatisfied people nibble on tidbits much of the time The change in mood brought about by this group of drugs through cerebral stimulation also may contribute relief of excessive appetite in some people Some observers believe that the dextro form has primarily anorexigenic action and that the levorotatory compound is mainly one with excitatory effect [4] Richardson finds little evidence to support this concept [7] He does believe the dextro form has less pressor effect with the same excitatory stimulation as other compounds All these drugs have some pressor effect but in the range of dosage required for appetite inhibition there is little evidence that more than a slight and transient rise in blood pressure occurs in most patients following their use [8]

Williams *et al* have made an interesting comparison of the effects on patients of eight of these compounds * This group of investigators observed the effect of anorexigenic drugs on 132 markedly obese patients who received a total of 307 courses of therapy varying in length of time from two to fifty-two weeks Taking into account the patient's evaluation in addition to the investigators' observation of weight loss and side effects, Williams and his associates placed the following four compounds in the order of their preference (*a*) *d*,1-phenyl-2-aminopropane, (*b*) 1-cyclohexyl-2-aminopropane, (*c*) 1-cyclohexyl-2-methyl-aminopropane, and (*d*) 1-phenyl-2-methyl aminopropane All of these compounds were found to have good or bad effects or both in most individuals The desirable effects were anorexia, increased mental and physical activity, a sense of well being, more ambition and determination, and less fatigue Undesirable reactions observed were nervousness, apprehension, depression, insomnia, exhaustion, headache, light headedness, dryness of the mouth, an unpleasant taste, nausea, vomiting, and increased bowel movements By means of appropriate regulation of dosage most patients lost weight without the ill effects of the drug remaining prominent All of the compounds produced similar manifestations, but the relative intensity of the symptoms varied considerably [8] Richardson warns of the possible consequences from overstimulation of the latent or overt psychotic individual, citing examples of paranoia following treatment [7]

The selection of the most effective anorexigenic compound depends for the most part on the amount of weight loss it produces in each individual with the least number of undesirable effects The effects of each drug varies with individuals and dosage. The appropriate choice and dosage of a drug is one which will bring about a loss of weight of one pound per week and will not produce enough unpleasantness to interfere with prolonged usage The patient's conclusion is important, but the doctor must view objectively each drug's effect

Tolerance occurs with all these compounds. The desired effects become less marked as the length of time they are taken increases The tolerance effect can be abruptly terminated for a period of time by changing to another compound Time again will result in refractoriness to the second drug, but, fortunately, the first compound can again be used effectively

It appears that the 2-aminopropane group of drugs exerts an inhibitory effect on appetite, and that, by using them as adjuncts to other therapy, these drugs can be useful in the treatment of overweight patients However, they are powerful drugs with complex actions, and therefore must be used cautiously on selected patients The physician who prescribes them has not only a responsibility to his patient, who without supervision may do injury to himself from overactivity, but to society as well for early termination of the drug in an individual who shows abnormal behavior

* *d* 1-phenyl 2-aminopropane 1-cyclohexyl 2-aminopropane 1-cyclohexyl 2-methyl aminopropane, 1-phenyl 2-methyl aminopropane 2-amino-6-methylheptane *d,l*-1-phenyl 2-aminopropane 1(p-hydroxyphenyl) 2-aminopropane 1 1 phenyl 2 aminopropane

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With this issue "Facts About Nutrition" will be discontinued. A new series will begin with the October 1 issue of the JOURNAL and will continue on a monthly basis through June, 1950

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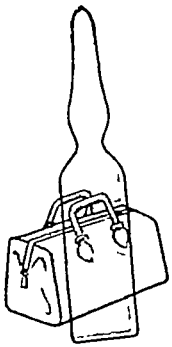
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Scientific Articles

HYPERTENSIVE ENCEPHALOPATHY AND CEREBRAL ARTERIOSCLEROSIS

HENRY I RUSSEK, M D , F A C P and BURTON L ZOHMAN, M.D , F A C P Staten Island, New York

(From the Cardiovascular Research Division, U.S Marine Hospital, Staten Island)

HYPERTENSIVE encephalopathy has been ascribed to an unequal participation of the cerebral vessels in generalized arteriolar constriction According to this view, the cerebral arterioles in systemic hypertension may react less forcefully than those elsewhere in the body and thus give rise to edema of the brain, or individual cerebral arterioles may respond to the rise in arterial pressure by intense spasm, thereby precipitating focal cerebral symptoms [1]

While this concept may be true,the thesis is no longer tenable that vascular encephalopathy is always correlated with arterial hypertension The characteristic clinical picture has been observed in acute glomerulonephritis and lead poisoning in the absence of elevated blood pressure [1,2] Transient aphasia, parasthesia, monoplegia, hemiplegia, and convulsions have also been found to occur in patients with cerebral arteriosclerosis without associated hypertension [3] That diseased arteries are prone to spasm is suggested by observations in peripheral arteriosclerosis in which appreciable constriction of collateral channels has also been noted [1 4 5] Since cerebral arteriosclerosis is frequently found in hypertensive disease, locally diseased vessels rather than arterial hypertension may be primarily responsible for encephalopathic episodes in some cases If this is confirmed, the desirability of therapeutic reduction in blood pressure in such patients should be reconsidered.

The observations of Kety and associates have corroborated the clinical impression that reduction of the hypertensive patient's blood pressure by nonspecific measures is accompanied by persistence of a high degree of vascular tone in the brain and a significant decrease in cerebral blood flow [6] Consequently, utilization of sympathectomy, rice diet, phlebotomy, or other procedures may be contraindicated in the hypertensive patient with advanced cerebral arteriosclerosis since these may engender significant impairment or actual failure of established anastomotic circulation in the brain. Indeed, the possibility even exists that elevated blood pressure in these cases may represent a compensatory mechanism through which normal cerebral blood flow is maintained

On the other hand, in the experience of leading authorities, hypertensive encephalopathy was generally improved or abolished by sympathectomy when the latter was followed by a favorable fall in the blood pressure [7] While this may be true, it must be remembered that operation is infrequently performed on patients over the age of fifty, so that marked compromise of the cerebral circulation may have been uncommonly encountered Furthermore, most surgeons have learned to avoid sympathectomy in patients with arteriosclerotic complications

These considerations led us to employ continuous caudal anesthesia (high caudal block) for the purpose of studying the immediate effects of blood pressure reduction upon hypertensive encephalopathy associated with cerebral arteriosclerosis Four hypertensive patients who suffered from this cerebral syndrome and in whom there was suggestive evidence of extensive cerebral vascular disease, as indicated by such findings as generalized arteriosclerosis, arteriosclerotic retinopathy, previous cerebral thrombosis, or advanced age, were tested in this manner The ages were fifty-six, fifty-eight, sixty-two, and sixty-seven, respectively The response to lowering of the blood pressure by sympathetic block (through the medium of caudal anesthesia) was similar in all four patients One case which was followed to necropsy is described in detail as follows

Case Report

R L , a fifty-six-year-old, white merchant seaman, was admitted to the U S Marine Hospital with a history of high blood pressure of many years duration Ten months prior to entry he suffered a

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"stroke" which left him paralyzed on his left side. There was gradual return of motor power, however, with partial recovery of function permitting resumption of light duty. One month before admission, he suffered a sudden attack of dizziness, impairment of vision, and inability to speak, which persisted for approximately one hour. Similar attacks recurred intermittently until the day of admission when paralysis of the right side of the body was noted. Family history indicated that both parents and four siblings had died of either "stroke," hypertension, or kidney disease.

Physical examination revealed a well-developed well-nourished, white man with florid facies, who was able to understand simple commands but who lacked the ability to speak. There was paralysis of the right side of the face. Slight cyanosis of the lips was present. Pupils were equal and reacted to light and accommodation. Fundi showed hypertensive retinopathy, grade III. The heart was moderately enlarged in its transverse diameter. There was a normal sinus rhythm. A blowing systolic murmur of grade III intensity was heard at the mitral area. The second aortic sound was markedly accentuated. Blood pressure was 224/120. There was no evidence of decompensation. The lungs were clear. There was moderate pain on flexion of the left thigh. The extremities on the left side were moderately spastic, on the right flaccidity was present. Reflexes were hyperactive on the left and hypoactive on the right. X-ray of the chest revealed clear lung fields with moderate enlargement of the heart to the left. Electrocardiogram showed a pattern suggestive of old posterior myocardial infarction. Urinalysis revealed a specific gravity of 1.032 with slight albuminuria. Nonprotein nitrogen of the blood was 40 mg. per cent.

During the ensuing forty-eight hours motor aphasia gradually disappeared, and strength began to return to both right extremities. Weakness on the left side remained unaltered. In subsequent weeks there were recurrent attacks of mental confusion, aphasia, right hemiplegia, generalized convulsions, and coma. Blood pressure during attacks was in the range of 260/140. Between episodes it fell to 180/110. Because of the rapid recurrence of seizures which numbered 10 to 20 per day and the elevation in blood pressure which accompanied the episodes, an attempt was made to abolish the hypertension temporarily by means of continuous caudal anesthesia (Fig. 1). It was found that even when the blood pressure was maintained in the normotensive range for a period of three hours, generalized convulsive seizures recurred with equal or greater severity. Collapse and coma with complete flaccidity developed when the blood pressure dropped to 80/60. These were quickly overcome, however, by discontinuance of the anesthetic and supportive therapy. The blood pressure soon rose to 195/115. Spinal fluid pressure was measured at this time and found to be 120 mm. of water. The course was progressively downgrade during the ensuing days, and the patient finally expired. An autopsy was performed.

Postmortem examination revealed a brain of normal size weighing 1,360 Gm. The convolutions appeared normal. On section an area of subcortical softening was found in the left hemisphere near the midline, involving an area of 5 by 2 cm. This zone was brown and semifluid in consistence. The basal ganglia appeared normal on both sides. The cerebral arteries showed an extremely severe atheromatous degeneration with thickening of the vertebral and basilar arteries and of the two internal carotids. The process was not calcific, and most of the thickening of the wall appeared to be due to yellow fatty material. Even the smaller arterial branches were involved. The heart weighed 440 Gm. The coronary arteries showed considerable arteriosclerosis and tortuosity. The main branches were patent. On section of the myocardium, the left ventricle showed numerous foci of pale gray color, ranging in size up to 5 mm. in diameter. There were narrow streaks of fibrosis throughout. Findings in other organs were not remarkable.

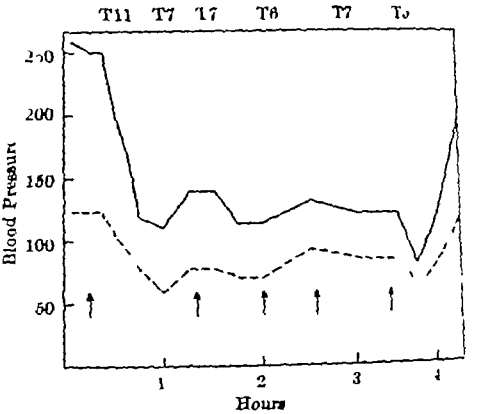


FIG. 1. Response of blood pressure to continuous caudal anesthesia (Metycaine). Solid line, systolic; broken line, diastolic; T, thoracic level of anesthesia. Arrows indicate generalized convulsive seizures.

Discussion

Temporary spinal sympathetic block with reduction of blood pressure in the hypertensive patient has been found to be associated with persistence of vasoconstriction in the brain and significant decrease in cerebral blood flow.[1] That similar response follows surgical sympathectomy is suggested by the observation that constriction of the retinal arterioles continues even after normotensive levels have been restored for long periods.[2] The question arises, therefore, as to the advisability of "correcting" hypertension when there is impending failure of the cerebral circulation as a result of extensive arteriolar sclerosis. Our studies in which high caudal block restored normal blood pressure levels for several hours in four hypertensive patients with recurrent encephalopathic episodes indicate that no improvement or an actual aggravation of symptoms accompanies this procedure when there is underlying cerebral vascular disease.

These findings are in direct contrast with those of Jost who reported that he was able to prevent eclamptic seizures in each of nine patients with toxemia of pregnancy, merely by restoring normotensive levels through the use of caudal anesthesia [9] Obviously, the cerebral episodes in both conditions do not have the same pathogenesis Eclampsia is commonly associated with elevation of blood pressure, angiospastic cerebral phenomena, and edema of the brain Reduction in blood pressure with concomitant decrease in cerebral blood flow might, therefore, be expected to reverse cerebral changes in this condition. Similarly, hypertensive encephalopathy associated with cerebral edema and/or angiospasm (without extensive arteriosclerosis) has apparently been benefited by surgical sympathectomy [7] In these conditions, reduction in blood flow to the brain, resulting from fall in blood pressure, would appear to be more than counterbalanced by the improvement in circulation arising from subsidence of cerebral edema and cessation of angiospasm

In our cases, however, the same factors do not seem to have been operative No edema of the brain was found, as shown by the appearance of the eyegrounds, cerebrospinal fluid pressure, and autopsy studies Extensive cerebral arteriosclerosis with impaired cerebral circulation aggravated by angiospasm appeared responsible for the symptomatology Since the same clinical picture may occur with cerebral arteriosclerosis alone in the absence of arterial hypertension, the role played by the latter is not clearly defined [3] It is likely that elevation of blood pressure augments the tendency of diseased vessels and their collaterals to undergo spasm Consequently, although reduction in blood pressure may have lessened the degree of angiospasm in our cases, the concomitant decrease in cerebral blood flow in the presence of advanced arteriolar sclerosis apparently did not permit a favorable change in the impaired circulation of the brain Indeed, it is theoretically possible, although not proved, that hypertension itself is occasionally initiated by cerebral vascular disease and when so evoked serves to maintain an adequate supply of blood to the brain That interference with such elevation of the blood pressure may actually precipitate clinical symptoms is shown by the observation of Fishberg, i e, that marked mental depression may follow surgical sympathectomy for hypertension in some cases [8] The writers, moreover, have witnessed the development of recurrent encephalopathic episodes in two hypertensive patients in whom elevated blood pressure was restored to normal levels as a result of acute coronary occlusion [10] It is significant that in neither of these patients was congestive failure or shock a part of the clinical picture Similarly, sudden fall in the blood pressure as a result of profound mercurial diuresis was found to have precipitated cerebral thrombosis in three elderly hypertensive patients with congestive heart failure [11] The possibility also exists that some of the cases, commonly regarded as cerebral embolism following myocardial infarction, may, in reality, be instances of cerebral thrombosis precipitated by fall in the blood pressure and decrease in cerebral blood flow The autopsy studies of Dozzi lend support to this view [12] If confirmed, another indication for the use of dicumarol in myocardial infarction should be recognized

These considerations suggest that, in the presence of extensive cerebral arteriosclerosis, therapeutic reduction of elevated blood pressure may not only fail to control but may actually initiate or aggravate cerebral symptoms Furthermore, since cerebral vascular disease with or without associated hypertension may produce most of the features of the syndrome generally referred to as hypertensive encephalopathy, the criteria for diagnosis of this condition should be reconsidered Hypertensive encephalopathy is generally recognized without difficulty in cases of hypertensive disease in which transient focal cerebral symptoms and other manifestations are dependent upon cerebral edema Its diagnosis then rests upon the demonstration of increased intracranial pressure as evidenced by papilledema, increased cerebrospinal fluid pressure, headache, vomiting, convulsions, and coma In many instances, however, the diagnosis must depend on the associated clinical picture Thus, transient focal symptoms occurring in a patient with previous cerebral vascular complications or in an elderly subject with evidence of generalized arteriosclerosis are probably due to cerebral arteriosclerosis, irrespective of the associated level of blood pressure On the other hand, focal cerebral symptoms in the patient with acute glomerulonephritis, eclampsia gravidarum, or hypertensive disease (associated with papilledema) are, in all probability, manifestations of hypertensive encephalopathy It is apparent that many of the cases which were in the past classified as hypertensive encephalopathy actually were instances of cerebral arteriosclerosis in which hypertension played only a secondary role There are undoubtedly instances in which both cerebral edema and cerebral arteriolar sclerosis contribute to the clinical picture In some cases, moreover, only necropsy study can clearly indicate which of these factors was responsible for the clinical symptom-complex Fishberg concurs in this altered concept which is at variance with his original contention that the syndrome is invariably correlated with arterial

"stroke" which left him paralyzed on his left side. There was gradual return of motor power, however, with partial recovery of function permitting resumption of light duty One month before admission, he suffered a sudden attack of dizziness, impairment of vision, and inability to speak, which persisted for approximately one hour Similar attacks recurred intermittently until the day of admission when paralysis of the right side of the body was noted Family history indicated that both parents and four siblings had died of either "stroke," hypertension, or kidney disease

Physical examination revealed a well-developed, well-nourished, white man with florid facies, who was able to understand simple commands but who lacked the ability to speak. There was paralysis of the right side of the face Slight cyanosis of the lips was present. Pupils were equal and reacted to light and accommodation Fundi showed hypertensive retinopathy, grade III The heart was moderately enlarged in its transverse diameter There was a normal sinus rhythm. A blowing systolic murmur of grade III intensity was heard at the mitral area The second aortic sound was markedly accentuated Blood pressure was 224/120 There was no evidence of decompensation. The lungs were clear There was moderate pain on flexion of the left thigh The extremities on the left side were moderately spastic, on the right flaccidity was present Reflexes were hyperactive on the left and hypoactive on the right X-ray of the chest revealed clear lung fields with moderate enlargement of the heart to the left Electrocardiogram showed a pattern suggestive of old posterior myocardial infarction Urinalysis revealed a specific gravity of 1 032 with slight albuminuria. Nonprotein nitrogen of the blood was 40 mg per cent

During the ensuing forty-eight hours motor aphasia gradually disappeared, and strength began to return to both right extremities Weakness on the left side remained unaltered In subsequent weeks there were recurrent attacks of mental confusion, aphasia, right hemiplegia, generalized convulsions, and coma. Blood pressure during attacks was in the range of 260/140 Between episodes it fell to 180/110 Because of the rapid recurrence of seizures which numbered 10 to 20 per day and the elevation in blood pressure which accompanied the episodes, an attempt was made to abolish the hypertension temporarily by means of continuous caudal anesthesia (Fig 1) It was found that even when the blood pressure was maintained in the normotensive range for a period of three hours, generalized convulsive seizures recurred with equal or greater severity Collapse and coma with complete flaccidity developed when the blood pressure dropped to 80/60 These were quickly overcome, however, by discontinuance of the anesthetic and supportive therapy The blood pressure soon rose to 195/115 Spinal fluid pressure was measured at this time and found to be 120 mm. of water The course was progressively downgrade during the ensuing days, and the patient finally expired An autopsy was performed

Postmortem examination revealed a brain of normal size weighing 1,360 Gm The convolutions

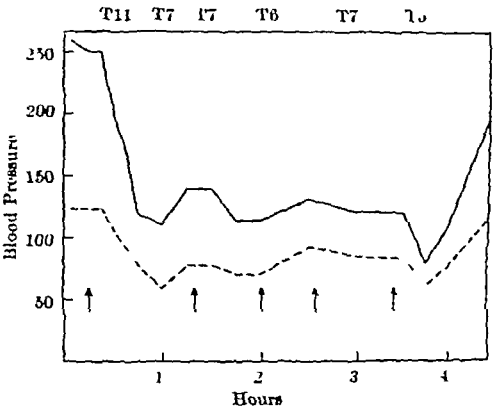


Fig 1 Response of blood pressure to continuous caudal anesthesia (Metycaine) Solid line, systolic, broken line, diastolic, T, thoracic level of anesthesia. Arrows indicate generalized convulsive seizures

appeared normal. On section an area of subcortical softening was found in the left hemisphere near the midline, involving an area of 5 by 2 cm. This zone was brown and semifluid in consistence The basal ganglia appeared normal on both sides The cerebral arteries showed an extremely severe atheromatous degeneration with thickening of the vertebral and basilar arteries and of the two internal carotids The process was not calcific, and most of the thickening of the wall appeared to be due to yellow fatty material Even the smaller arterial branches were involved The heart weighed 440 Gm The coronary arteries showed considerable arteriosclerosis and tortuosity The main branches were patent On section of the myocardium, the left ventricle showed numerous foci of pale gray color, ranging in size up to 5 mm. in diameter There were narrow streaks of fibrosis throughout. Findings in other organs were not remarkable.

Discussion

Temporary spinal sympathetic block with reduction of blood pressure in the hypertensive patient has been found to be associated with persistence of vasoconstriction in the brain and significant decrease in cerebral blood flow [4] That similar response follows surgical sympathectomy is suggested by the observation that constriction of the retinal arterioles continues even after normotensive levels have been restored for long periods [5] The question arises, therefore, as to the advisability of "correcting" hypertension when there is impending failure of the cerebral circulation as a result of extensive arteriolar sclerosis Our studies in which high caudal block restored normal blood pressure levels for several hours in four hypertensive patients with recurrent encephalopathic episodes indicate that no improvement or an actual aggravation of symptoms accompanies this procedure when there is underlying cerebral vascular disease

These findings are in direct contrast with those of Jost who reported that he was able to prevent eclamptic seizures in each of nine patients with toxemia of pregnancy, merely by restoring normotensive levels through the use of caudal anesthesia [9] Obviously, the cerebral episodes in both conditions do not have the same pathogenesis Eclampsia is commonly associated with elevation of blood pressure, angiospastic cerebral phenomena, and edema of the brain Reduction in blood pressure with concomitant decrease in cerebral blood flow might, therefore, be expected to reverse cerebral changes in this condition Similarly, hypertensive encephalopathy associated with cerebral edema and/or angiospasm (without extensive arteriosclerosis) has apparently been benefited by surgical sympathectomy [7] In these conditions, reduction in blood flow to the brain, resulting from fall in blood pressure, would appear to be more than counterbalanced by the improvement in circulation arising from subsidence of cerebral edema and cessation of angiospasm.

In our cases, however, the same factors do not seem to have been operative No edema of the brain was found, as shown by the appearance of the eyegrounds, cerebrospinal fluid pressure, and autopsy studies Extensive cerebral arteriosclerosis with impaired cerebral circulation aggravated by angiospasm appeared responsible for the symptomatology Since the same clinical picture may occur with cerebral arteriosclerosis alone in the absence of arterial hypertension, the role played by the latter is not clearly defined [3] It is likely that elevation of blood pressure augments the tendency of diseased vessels and their collaterals to undergo spasm Consequently, although reduction in blood pressure may have lessened the degree of angiospasm in our cases, the concomitant decrease in cerebral blood flow in the presence of advanced arteriolar sclerosis apparently did not permit a favorable change in the impaired circulation of the brain. Indeed, it is theoretically possible, although not proved, that hypertension itself is occasionally initiated by cerebral vascular disease and when so evoked serves to maintain an adequate supply of blood to the brain That interference with such elevation of the blood pressure may actually precipitate clinical symptoms is shown by the observation of Fishberg, i e , that marked mental depression may follow surgical sympathectomy for hypertension in some cases [8] The writers, moreover, have witnessed the development of recurrent encephalopathic episodes in two hypertensive patients in whom elevated blood pressure was restored to normal levels as a result of acute coronary occlusion [10] It is significant that in neither of these patients was congestive failure or shock a part of the clinical picture Similarly, sudden fall in the blood pressure as a result of profound mercurial diuresis was found to have precipitated cerebral thrombosis in three elderly hypertensive patients with congestive heart failure [11] The possibility also exists that some of the cases, commonly regarded as cerebral embolism following myocardial infarction, may, in reality, be instances of cerebral thrombosis precipitated by fall in the blood pressure and decrease in cerebral blood flow The autopsy studies of Dozzi lend support to this view [12] If confirmed, another indication for the use of dicumarol in myocardial infarction should be recognized

These considerations suggest that, in the presence of extensive cerebral arteriosclerosis, therapeutic reduction of elevated blood pressure may not only fail to control but may actually initiate or aggravate cerebral symptoms Furthermore, since cerebral vascular disease with or without associated hypertension may produce most of the features of the syndrome generally referred to as hypertensive encephalopathy, the criteria for diagnosis of this condition should be reconsidered Hypertensive encephalopathy is generally recognized without difficulty in cases of hypertensive disease in which transient focal cerebral symptoms and other manifestations are dependent upon cerebral edema Its diagnosis then rests upon the demonstration of increased intracranial pressure as evidenced by papilledema, increased cerebrospinal fluid pressure, headache, vomiting, convulsions, and coma In many instances, however, the diagnosis must depend on the associated clinical picture Thus, transient focal symptoms occurring in a patient with previous cerebral vascular complications or in an elderly subject with evidence of generalized arteriosclerosis are probably due to cerebral arteriosclerosis, irrespective of the associated level of blood pressure On the other hand, focal cerebral symptoms in the patient with acute glomerulonephritis, eclampsia gravidarum, or hypertensive disease (associated with papilledema) are, in all probability, manifestations of hypertensive encephalopathy It is apparent that many of the cases which were in the past classified as hypertensive encephalopathy actually were instances of cerebral arteriosclerosis in which hypertension played only a secondary role There are undoubtedly instances in which both cerebral edema and cerebral arteriolar sclerosis contribute to the clinical picture In some cases, moreover, only necropsy study can clearly indicate which of these factors was responsible for the clinical symptom-complex. Fishberg concurs in this altered concept which is at variance with his original contention that the syndrome is invariably correlated with arterial

hypertension [1-13] He agrees that symptoms due to cerebral arteriosclerosis "should no longer be included in the rubric of hypertensive encephalopathy"

The medical management of vascular (hypertensive or arteriosclerotic) encephalopathy frequently presents a difficult problem in clinical medicine The authors have recently reported successful response of this syndrome to large oral doses of papaverine, having employed as high as 18 grains per day in some cases [3] Patients with cerebral vascular disease appear to show the most unequivocal response to this drug, but, even in malignant hypertension with cerebral edema, papaverine has seemed to reduce the frequency and severity of encephalopathic episodes The success of the drug undoubtedly depends on its ability, in large doses, to prevent cerebral angiospasm When extensive cerebral vascular disease exists in association with arterial hypertension, this drug, rather than measures tending to lower the blood pressure, should be relied on to control cerebral episodes

Summary and Conclusions

1 Hypertensive encephalopathy has been defined as a cerebral symptom-complex which is invariably correlated with arterial hypertension The validity of this concept is challenged by the observation that typical focal cerebral symptoms may develop with cerebral arteriosclerosis in the absence of elevated blood pressure An attempt was made, therefore, to evaluate the role played by cerebral vascular disease and arterial hypertension, respectively, in the pathogenesis of recurrent encephalopathic episodes in patients in whom both conditions coexist Four hypertensive patients with advanced cerebral arteriosclerosis who presented the characteristic clinical features of vascular encephalopathy were studied to determine the effect of reduction in blood pressure (by means of continuous caudal anesthesia) on the frequency and severity of seizures It was found that in these cases the attacks were either not improved or significantly aggravated by reduction in the arterial blood pressure It is concluded that, even in the presence of hypertensive disease, cerebral arteriosclerosis may be chiefly or solely responsible for recurrent cerebral episodes The diagnosis of hypertensive encephalopathy, therefore, must depend on the associated clinical picture and the frequent occurrence of cerebral edema

2 Inasmuch as reduction of blood pressure in the hypertensive patient is commonly associated with decrease in cerebral blood flow and persistence of a high degree of cerebral vascular tone, therapeutic or accidental restoration of normotensive levels when there is extensive cerebral vascular disease may significantly affect the blood supply to the brain. Clinical examples are cited in which such decline in the blood pressure appeared responsible for the development or aggravation of cerebral symptoms in arteriosclerotic subjects

3 Papaverine hydrochloride in large oral dosage has been found effective in controlling the symptoms of vascular (hypertensive or arteriosclerotic) encephalopathy When there is marked cerebral vascular disease associated with hypertension, this drug, rather than measures tending to lower the blood pressure, should be relied on to prevent recurrent cerebral episodes

Caudal anesthesia was administered by Dr James L. Southworth.

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LICENSE REQUIREMENTS UNDER NURSE PRACTICE ACT

A recommendation has been made by the New York State Inter-Departmental Health Council to postpone the licensing requirements under the Nurse Practice Act for an additional period of one year If the present act goes into effect, hospitals will have to restrict the physical care of patients to licensed practical nurses. Since at most only a thousand are graduated from practical nursing schools each year, the supply would not be adequate for the purpose Hospital authorities fear that they would be liable for administrative negligence if they did not provide adequate nursing care as defined by the proposed statute The acute shortage of nurses has caused hospitals to employ auxiliary workers under the supervision of registered professional nurses. While there has been some improvement in the nursing situation, the number of practical and professional nurses available is still too small to dispense with the use of auxiliary workers in hospitals The law now exempts attendants in mental hospitals from licensing if adequate medical and nursing supervision is provided Similar consideration should be given to all subsidiary nursing aides in legally incorporated hospitals having adequate nursing and medical service —*Greater New York Hospital Association*

AMPUTATION IN PATIENTS WITH DIABETES MELLITUS

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ANESTHESIOLOGISTS have been conspicuously absent in discussions related to the proper management of patients with diabetes mellitus who are subjected to amputation of the lower extremity Ordinarily, anesthetic care for these patients is not deemed complicated, since the primary requirement for anesthesia is the provision of pain relief alone Although it has always been desirable to impose no further strain upon the surgical diabetic during the anesthetic period, this need has rarely seemed difficult enough of attainment to warrant extensive commentary However, since there is considerable difference of opinion among physicians interested in the surgical problems of diabetes, it seemed desirable to add the information and experience available from the viewpoint of the anesthesiologist The current lack of agreement upon the value of refrigeration, a procedure which provides surgical anesthesia, further supports the need for data collected from patients, who were serious problems, in which other forms of anesthesia were largely employed, to the almost complete exclusion of refrigeration [1–6] Furthermore, since mortality rates vary from the 4.7 per cent reported by McKittrick to figures as high as 75 per cent, the results obtained in other large clinics should help toward arriving at a satisfactory regime [1]

It was decided, therefore, to review the clinical material of Bellevue Hospital for the several reasons outlined above This institution is a large municipal hospital organized into five separate surgical services employing variations in surgical technic and utilizing different approaches to the medical management of the complicating diabetes These indigent patients were frequently unsupervised diabetics prior to entry, although not uniformly so They were undoubtedly of the "poorest risk" group The only common denominator was the anesthetic management by a single department of anesthesia which served all patients in the hospital. All cases since the establishment of the department in 1935 through 1946 are included—521 in all—with the exception of the period of July, 1942, through December, 1943 These eighteen months were arbitrarily excluded because the skeleton staffing of the anesthesia service during this part of the war years precluded the completion of adequate records It must be emphasized that the exclusion of cases in this interval extended to all surgical services and, therefore, should have no bearing on the ultimate picture The vast majority of patients were anesthetized with inhalation anesthesia, usually cyclopropane Refrigeration analgesia was rarely employed

It is not our present purpose to review in detail the medical and surgical aspects of amputations for diabetic gangrene Comment will be reserved, for the most part, to a consideration of the anesthetic regime and the presentation of clinical information obtained from reviewing the records of the patients here

The selection of anesthesia does not depend upon surgical requirements, since the operator requires pain relief only and relaxation is unnecessary Therefore, the choice of anesthesia must be governed by the presence of diabetes and the other pathologic disorders associated with this age group and partially influenced by the diabetes The most common and most important of these are the cardiovascular disorders of hypertension and arteriosclerosis

It has been pointed out that cyclopropane exerts little effect on the fasting blood sugar of diabetic patients and almost no disturbance of acid-base balance [7] Other studies from this clinic suggest that intermediary metabolism of carbohydrates is affected adversely by cyclopropane and to a lesser degree by pentothal sodium and spinal anesthesia with procaine.[8 9] The precise role these disturbances may play in the surgical diabetic has not as yet been elucidated, but, presumably, careful attention to hydration, insulin dosage, and electrolyte balance is capable of overcoming the minor defects of these agents and technics At least on the basis of clinical experience adequate medical management of the diabetic is not complicated by the administration of these agents Appropriate nerve block may be included here in the same category as low spinal anesthesia

Ether has been employed with satisfaction in many clinics as the anesthetic agent of choice in the patient with diabetes While it is realized fully that ether does serve the purpose under these circumstances, it cannot be accepted as the agent of choice in our hands except in specifically selected cases It has been conclusively demonstrated that ether elevates the blood sugar markedly and greatly facilitates the development of acidosis [10] There is ample evidence, in addition, that this agent with the single exception of the halogenated hydrocarbons interferes with

liver function to a greater degree than other general anesthetic agents These disturbances do not necessarily suggest a tragic result, but they impose considerable difficulty in metabolic control to the internist The series reported here demonstrates an undue incidence of ketosis after ether anesthesia as compared with cyclopropane In these circumstances, it seems wiser to avoid the use of ether, since other methods and agents offer a lesser degree of metabolic and acid-base disturbance Ether is chosen, if inhalation anesthesia is selected, only when there are specific contraindications to the use of the other agents The development of arrhythmia during cyclopropane anesthesia no longer necessitates abandonment of this agent in favor of ether since the demonstration of the efficacy of procaine administered intravenously in this situation [11]

Nitrous oxide has been gradually discarded since the introduction of cyclopropane because the not infrequent asphyxia exerts deleterious effects on carbohydrate metabolism which are equivalent to massive epinephrine administration Perhaps even more urgent is the need to avoid any degree of anoxia in these patients who suffer from myocardial inadequacy as well

The circulatory complications of the patient with diabetic gangrene deserve considerable stress In this connection, it is important to emphasize the prime need of avoiding anoxia This fact has been pointed out repeatedly by observers whose surgical practice includes patients with diminished cardiac reserve [12] This is, in part, a matter of judgment and, in part, a matter of technical skill in anesthesia If it is realized that all depressant drugs and anesthetic technics carry the potentiality of decreasing optimum oxygenation of the tissues, a long step in progress is achieved Inhalation agents should be administered through an unobstructed airway with adequate oxygen tension, and spinal anesthesia should be kept low enough to avoid respiratory embarrassment Regardless of the choice of anesthesia, depressant drugs for these patients are either unnecessary or may be confined to exceedingly small dosage Finally, the supine position is preferable because of the proved interference with vital capacity in other postures, a significant consideration in the diabetic patient who also has serious cardiac involvement [13]

Because of the benign influence of cyclopropane on the diabetic state, its safety and rapidity of action for patients with cardiovascular disease without alteration of cardiac rhythm, and the desirability of securing unconsciousness during amputation for psychic reasons, this agent has been the one of choice in the large majority of these surgical manipulations The last element, the emotional factor, may not loom so large in other clinics, but experience here dictates its enormous value in patients who frequently benefit by being spared the psychic trauma of witnessing or hearing events which are intimately concerned with the loss of an important body part The results obtained have justified the utilization of inhalation anesthesia with cyclopropane in admittedly bad-risk subjects

Clinical Data

Five hundred and twenty-one unselected diabetic patients observed from 1935 to 1946 who required amputation for gangrene in the lower extremities form the basis of this report

Approximately two thirds of these patients were treated prior to the large-scale availability of penicillin

In the vast majority of instances, operation was performed by a surgical resident in training, and anesthesia was administered by a member of the resident staff of the Department of Anesthesia, both under teaching supervision Forty-one of these patients died during the period of hospitalization, a total mortality of 7 8 per cent There was one death on the operating table due to asphyxia. Two hundred sixty-eight patients were subjected to amputation through the thigh with 37 deaths, a mortality rate of 13 8 per cent The remaining 253 patients had leg, foot, or toe amputations, resulting in the death of four patients or a mortality of 1 6 per cent

It is necessary to add that these mortality data refer to deaths during the period of hospitalization which was precipitated by lower-extremity gangrene No information is available to the Anesthesia Service concerning the ultimate length of survival after release from the hospital

Figure 1 summarizes some of the mortality data collected The definite difference in fatality after thigh as compared with *leg or foot* amputation is clearly indicated The influence of age upon mortality is evident from the graphic separation of the various age groups It will

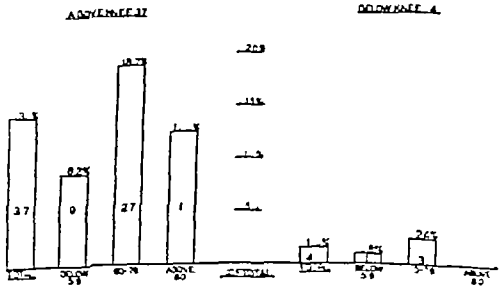


FIG 1 The mortality in the various age groups from above and below knee amputations is represented by percentage (indicated at top of each graph) and number of patients (inside graphs)

TABLE 1.—PREOPERATIVE COMPLICATIONS

	Under 59 Years		60 to 79 Years		Over 80 Years	
	Thigh	Leg and Foot	Thigh	Leg and Foot	Thigh	Leg and Foot
Arteriosclerotic cardiovascular disease	30 3% (33)	14 3% (18)	42 2% (62)	36 9% (45)	62 5% (5)	0
Hypertensive cardiovascular disease	19 2% (21)	28 5% (36)	25 2% (37)	20 3% (25)	12 5% (1)	0

be noted that more patients in the sixty to seventy-nine age group died in both major and minor types of procedures In fact, this age group accounts for approximately 75 per cent of the total mortality This is particularly significant since these patients comprise 51 per cent of the total group of 521 The separation of patients into age groups is illustrated in Figure 2

The sex distribution is not dissimilar from other series of amputations for diabetics in its preponderance of women (56 per cent)

Preoperative Complications

Cardiovascular disease due to hypertension or arteriosclerosis was an exceedingly common cause of preoperative morbidity Table 1 delineates the actual incidence of this complication. Large as the incidence was in all groups, it should be noted that the patients subjected to thigh amputation were more frequent victims of vascular disability than those whose operations were minor in character, except for the patients less than fifty-nine years of age This lone exception demonstrates a greater incidence of hypertensive disease in the minor operative series as compared with the major group This significant predisposition to circulatory crisis probably had a definite influence on the subsequent mortality Other preoperative complications were not so frequently noted and include rheumatic heart disease, pulmonary embolus, severe anemia, malignancy, acidosis, sepsis, chronic alcoholism, syphilis, psychosis, pneumonia, nephritis, and hyperthyroidism, to consider the major ones alone Although not so common, these diseases were responsible for a proportion of the deaths It is worth emphasizing the fact that 16 of the thigh cases were psychotic, a problem of enormous magnitude in management as indicated by the seven deaths which ensued

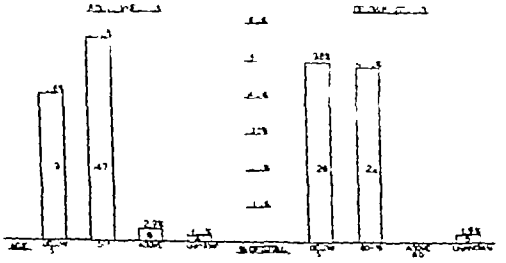


FIG 2 The age groups of patients undergoing above and below knee amputation are shown in percentage (indicated at top of each graph) and number (inside graph)

TABLE 2.—ANESTHETIC PROCEDURES

	Thigh	Leg and Foot
Inhalation*	241	221
Intravenous	2	7
Spinal	19	18
Refrigeration	5	0
Local and block	1	9
Total	268	253

* Usually cyclopropane.

Anesthesia

Table 2 summarizes the anesthetic procedures employed The large number of inhalation (usually cyclopropane) anesthesias is emphasized Premedication varied considerably throughout the period studied, but recent observations have reflected the decreasing need for depressant drugs of the opiate or barbiturate groups in elderly patients [14] At the present, premedication usually consists solely of a small dose of a belladonna drug, given for its drying effect upon tracheobronchial secretions and as prophylaxis against the reflexes initiated during operation. Most operative procedures consumed more than one hour in the thigh amputations and somewhat less in operations upon the leg or foot

Operative complications were not unusual, and shock was conspicuous by an unexpectedly low incidence (1.2 per cent)

Postoperative Complications

Major postoperative complications are summarized in Table 3 It is evident that the gross incidence of major complications is not enormous, but is extremely significant if Table 3 is compared with Table 4 Seven of the ten patients who developed atelectasis or pneumonia in the thigh group expired All 12 patients in this group who had congestive heart failure died, as did all subjects in whom systemic sepsis occurred Three of the four patients in severe ketosis did not survive, and one of the two victims of pulmonary embolization failed to recover, as did the patient with coronary thrombosis It is suggested that these complications in major surgery in the diabetic are of tremendous significance in the mortality which ensues after their occurrence.

Discussion

Although no attempt has been made to compare the various methods of anesthesia available

TABLE 3.—POSTOPERATIVE COMPLICATIONS

	Thigh	Leg and Foot	Total
Death	13 8% (37)	1 6% (4)	7 8% (41)
Atelectasis and pneumonia	3 7% (10)	0 4% (1)	2 0% (11)
Congestive heart failure	4 4% (12)	0 4% (1)	2 5% (13)
Systemic sepsis	2 2% (6)	0% (0)	1 1% (6)
Severe ketosis	1 5% (4)	0% (0)	0 8% (4)
Pulmonary embolization	0 8% (2)	0% (0)	0 4% (2)
Cerebral accident	1 1% (3)	0% (0)	0 6% (3)
Coronary thrombosis	0 4% (1)	0% (0)	0 2% (1)
Shock	0 4% (1)	0 4% (1)	0 4% (2)
Lung abscess	0% (0)	0 4% (1)	0 2% (1)
Renal failure	3 3% (9)	1 6% (4)	2 5% (13)

TABLE 4.—CAUSES OF DEATH

	Thigh	Leg and Foot
Heart failure	12	1
Atelectasis and pneumonia	7	0
Systemic sepsis	6	0
Ketosis	3	0
Pulmonary embolus	1	0
Coronary thrombosis	1	0
Cerebral accident	1	0
Asphyxia	1	0
Unknown	5	2
Uremia	0	1
Total	37	4

for amputations in the diabetic patient on the basis of experience at Bellevue Hospital, it is inevitable that such comparisons be drawn, because the clinical material is similar in risk to that described by Crossman and Allen who employ refrigeration almost exclusively, with a mortality rate of 21 per cent, in their diabetic patients.[2] The superiority of McKittrick's series is readily acknowledged and is a tribute to the coordinated efforts of all concerned in the care of diabetic patients It must also be admitted that the end results in the type of patient seen at a large charity hospital in the problem under discussion can never equal those in which patients are under constant supervision prior to admission for operation Many of our patients have had no medical care of any kind until they present themselves with gangrene

From the data presented here, the mortality in thigh amputations in diabetics of 13 8 per cent and the total mortality of all amputations in these patients of 7 8 per cent compare very favorably with those from clinics other than the New England Deaconess group and are definitely superior to the results reported for refrigeration technics in comparable patients It is suggested that, in addition to the important factors in lowering mortality presented by McKittrick, the capable management of the anesthetic period must also be included For reasons discussed, cyclopropane has been the choice in the vast majority of instances, but emphasis is directed toward the anesthetic judgment and technical skill of the trained anesthesiologist rather than toward the peculiar virtue of a single agent or technic

It is apparent that the place of refrigeration in the management of the diabetic cannot rest upon the lower mortality it affords, the protection of the patient against the effects of other anesthetic methods, or the exclusive ability to relieve pain incident to surgical manipulations with safety Its proper position in the surgical management of diabetic subjects must be evaluated in terms of purely surgical considerations, e g, the effect upon the wound itself, the influence upon the subsequent use of prostheses, etc, rather than its alleged superiority to other methods of anesthesia in assuring a successful issue That it has such value is readily apparent from the testimony of competent surgeons

Summary

1 A brief review of the anesthetic considerations in the management of diabetic patients subjected to amputation for gangrene is presented

2 Analysis of a ten-year period of experience with 521 amputations in patients with diabetes at Bellevue Hospital is offered for consideration

3 A total mortality of 7 8 per cent was observed which is divided into 13 8 per cent for patients subjected to thigh amputations as against 1 6 per cent for those whose operative procedures were in the leg or foot.

4 The influence of cardiovascular disease in the preoperative state is suggested, and other pertinent factors are considered.

5 The causes of death and postoperative morbidity are outlined

6 Commentary on the utility of cyclopropane in this series is made, together with emphasis on the favorable results as compared with the groups managed with refrigeration.

This study was completed under the direction of E. A. Rovenstine M D The authors wish to express their sincere appreciation for his valuable guidance and assistance.

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ACUTE CORONARY OCCLUSION SIMULATING ACUTE ABDOMINAL DISEASE

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SEVERAL patients have been encountered recently whose presenting clinical picture was presumably caused by acute intra-abdominal disease but who actually had sustained myocardial infarction due to acute coronary occlusion The association of abdominal symptoms and signs with acute coronary occlusion is well established [1] However, it is not common for the presenting symptoms to be confined entirely to the abdomen and, therefore, to simulate an acute intra-abdominal condition. Accordingly, four cases are described to re-emphasize the necessity for taking routine electrocardiograms early in all patients with acute upper abdominal findings, despite the absence of chest symptoms

Case Reports

Case 1 —S W , a thirty-seven-year-old man, had suffered episodes of mild "indigestion" and fainting spells for years On January 19, 1946, he developed a feeling of nausea which lasted an hour and a half and which came on after drinking cold milk. Five days later, on January 24, the patient again became nauseated and approximately an hour later experienced severe epigastric and periumbilical pain, which subsequently became diffuse throughout the abdomen He was hospitalized the same day

Upon admission, January 24, 1946, the patient appeared acutely ill His temperature was 98 6 F , pulse 72, blood pressure 110/70 mm. Hg The heart was not enlarged, the sounds were of good quality, and there were no murmurs. Epigastric tenderness and spasm of the upper rectus muscle were present, the lower abdomen was soft and not tender There was no rebound tenderness The blood hemoglobin level and red cell count were normal. However, there was a leukocytosis of 22,300 cells per cu mm., of which 86 per cent were neutrophils including 16 per cent nonsegmented forms The clinical impression was a penetrating peptic ulcer No air was demonstrable beneath the diaphragm by roentgenogram. On the following day the temperature was still low, but the white blood count had risen to 25,100 cells per cu. mm. with 83 per cent neutrophils, of which 24 per cent were nonsegmented and 2 per cent juvenile forms The blood pressure was 125/75 Additional x-ray examination of the chest and abdomen were still normal, but examination by one of the attending surgeons now disclosed a pleuropericardial friction rub near the apex.

Because of the friction rub, on January 26, thirty-six hours after admission, an electrocardiogram was made which pathognomonically revealed recent myocardial infarction due to acute coronary occlusion together with acute pericarditis. These changes consisted of a deep Q wave in lead 1, a smaller Q wave in lead 2, a very small R wave with a deep S wave (a Q equivalent) in lead 4, striking elevation of the RS-T segment in leads 1, 2, and 4, and slight elevation of the RS-T segment in lead 3 with diphasic T waves in leads 1 and 4 (FIG. 1)

The patient's course was uneventful. The friction rub disappeared on the seventh day of illness, only slight fever developed, moderate tenderness was present in the right upper quadrant, the sedimentation rate was rapid. Progressive characteristic changes occurred in repeated electrocardiograms A tracing taken on February 28 with multiple chest leads showed the very small R wave and deep S wave in leads CF 1 to 5 and a deep QS in CF 6, the T wave was inverted in CF 4 to 6 By July 1, T_1 was less deeply inverted, and T_2 and T_4 had become upright

Follow-up examination disclosed no cardiac enlargement, slight tenderness in the right upper quadrant of the abdomen, reversal of pulsation of the lower third of the left ventricle, characteristic of a large infarct on fluoroscopy, and a normally functioning gallbladder on x-ray Occasional epigastric pain recurred, and about four months after his acute attack the patient became aware of occasional pressure in the chest The patient was hyposensitive to the Libman pain test

Case 2 —J K., a fifty-six-year-old physician, had a history of a twelve-year period of intolerance to fatty food, belching, abdominal distention, and oc-

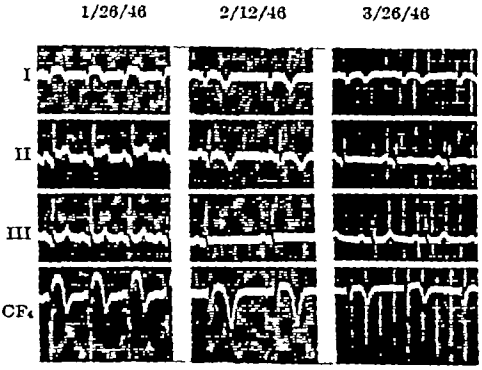


FIG 1 1/26/46 Pathognomonic electrocardiographic pattern of acute anterior wall infarction with pericarditis Deep Q in leads 1 and 4, with RS-T distinctly elevated in leads 1, 2, and 4. RS-T_3 slightly elevated. $T_{1,4}$ terminally inverted.
2/12/46 RS-T segments less elevated. $T_{1,2,4}$ deeply inverted
3/26/46 RS-T segments isoelectric. $T_{1,4}$ less inverted. T_2 upright.

casional mild epigastric and right upper quadrant pain The pains had increased in frequency during the six months prior to admission. Prompt relief was usually obtained with milk or water Roentgenograms of the gallbladder and gastrointestinal tract in October, 1947, disclosed only slow emptying of the gallbladder On December 25, 1947, the patient experienced a particularly severe attack of squeezing epigastric pain that required morphine and atropine for relief *Similar episodes recurred on* the following two days, and, since the pain persisted, the patient was hospitalized on the fourth day The clinical impression at that time was acute disease of the gallbladder or pancreas

Upon admission to the hospital on December 28, 1947, the patient's temperature was 100 F, pulse 106, and blood pressure 170/110 The heart was not enlarged and seemed normal. There was tenderness in the epigastrium and right upper quadrant, the lower margin of the liver was palpable 2 cm. below the costal margin, a finding which had long been known The white blood cell count was 9,450 per cu. mm. The sedimentation rate was 14 mm. in one hour, this subsequently rose to 40 mm. in one hour Blood and duodenal amylase, icterus index, alkaline phosphatase, and cephalin flocculation tests were normal, indicating normal function of the pancreas gallbladder, and liver

On December 29, 1947, an electrocardiogram showed abnormalities indicating myocardial infarction of the anterior wall due to acute coronary occlusion (Fig 2) These consisted of deep Q waves in leads 1 and 4 and elevation of the RS-T segment in lead 1, with corresponding depressions in leads 2 and 3 The T waves were inverted in leads 1 and 4 Progressive changes occurred in subsequent tracings

The patient's course was uneventful. He experienced no further pain, and his blood pressure fell to 130/80 which the patient stated was his normal level He was hyposensitive to the Libman pain test.

Case 3.—G B, a man of fifty, had been subject to attacks of indigestion for about two years These consisted of pyrosis, belching, and dull epigastric pain not related to meals He frequently noted a feeling of fullness in the epigastrium and occasionally experienced some shortness of breath on walking which was associated with the appearance of a prominent bulge in the midepigastric wall Roentgenographic examination of the gastrointestinal tract one year ago was said to have been normal The patient was advised to have a ventral hernia repaired On January 10, 1948, a few days before this was to have been performed, the patient was suddenly seized with a severe attack of nonradiating epigastric pain This developed shortly after a meal of crackers, thick cream, and eggs

The following day, January 11, the patient was admitted, ambulatory, to the hospital. He now complained only of a persistent dull ache in the epigastrium. The clinical impression was that of penetrating peptic ulcer Examination disclosed diastasis of the rectus muscle in the epigastrium which admitted three fingertips, tenderness over this region, and a marked bulge on straining The blood pressure was 115/80, six months previously the systolic pressure was known to have been 154. The following day the temperature rose to 102.6 F and the pulse 100 Gastrointestinal x-ray examination on this date revealed a tiny hiatus hernia and a constant deformity of the duodenal bulb The urine was concentrated to a specific gravity of 1.037 and contained one plus albumin and occasional red and white cells A leukocytosis of 20,000 cells per cu mm. with 81 per cent neutrophils was found on January 13 On January 14, an electrocardiogram showed the typical pattern of myocardial infarction of the posterior wall due to acute coronary occlusion (Fig 3) This consisted of a small Q in lead 2 and a deep Q in lead 3, elevated RS-T segments in leads 2 and 3 with a depression in leads 1 and 4. The T wave was inverted in leads 2 and 3 In addition, auriculoventricular dissociation was present

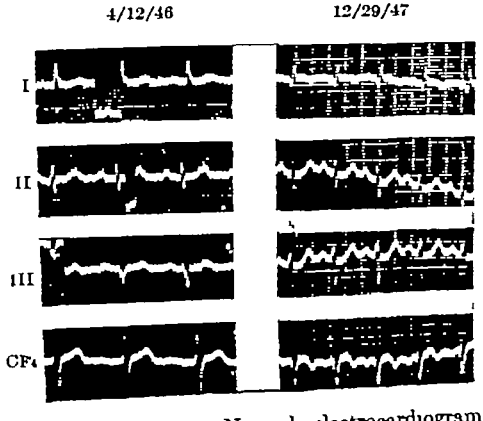


FIG 2 4/12/46 Normal electrocardiogram. 12/29/47 Classical pattern of acute coronary occlusion with *anterior* wall infarction. Q waves present in leads 1 and 4 with corresponding RS-T elevations in these leads. $T_{1,4}$ inverted.

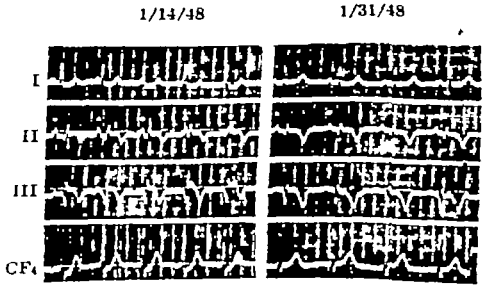


FIG 3 1/14/48 Typical pattern of myocardial infarction of the posterior wall due to acute coronary occlusion Small Q_2 and deep Q_3 present RS-$T_{2,3}$ elevated, RS-$T_{1,4}$ depressed. $T_{2,3}$ inverted In addition there is an auriculoventricular dissociation (P waves indicated by white dots)

1/31/48 RS-T segments isoelectric $T_{2,3}$ more deeply inverted.

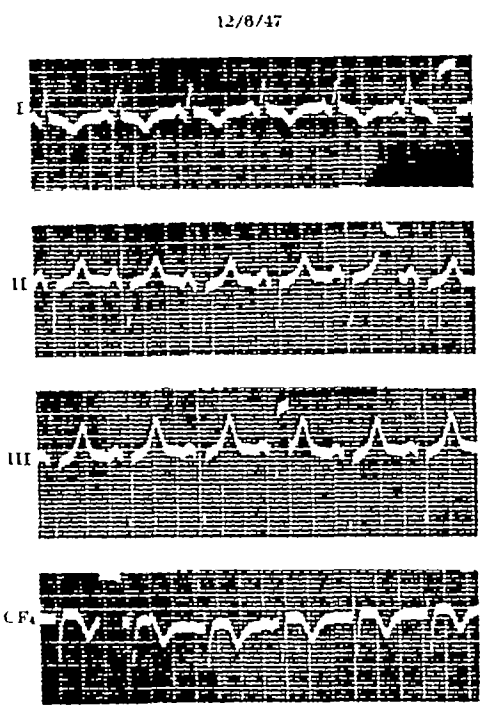


FIG 4. 12/6/47 Electrocardiogram suggests infarction of the anterior wall due to acute coronary occlusion Small Q present in lead 1 RS-$T_{1,4}$ slightly elevated RS-T_3 slightly depressed $T_{1,4}$ inverted

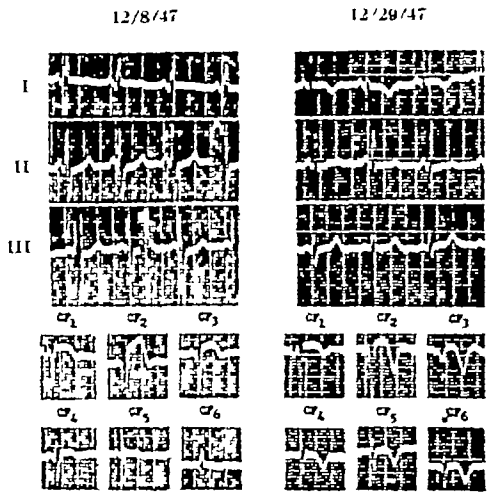


FIG 5 12/8/47 Deep Q present in $CF_{1,-,5}$ RS-T_2 slightly depressed RS-T_3 more depressed RS-T elevated in $CF_{1,2,3,4}$ T_1 no longer inverted T wave in chest leads diphasic or slightly inverted 12/29/47 $S_{2,3}$ now small. RS-$T_{1\ 2,3}$ isoelectric RS-T segment in $CF_{1,-,3}$ only slightly elevated T wave now deeply inverted in leads 1, CF_{1-4}

The patient's course was uneventful, after subsidence of the abdominal pain, he remained asymptomatic Low-grade fever was present for a week His blood pressure dropped to 100/70, and the heart sounds were noted to be faint The usual progressive changes developed in his electrocardiogram the RS-T segments became isoelectric, and the T wave in leads 2 and 3 more deeply inverted, the auriculoventricular dissociation disappeared Roentgen examination of the gallbladder on two occasions was normal, and a repeat gastrointestinal x-ray series subsequently did not definitely establish the diagnosis of duodenal ulcer This patient was a hyposensitive individual according to the Libman test and at no time experienced supradiaphragmatic pain

The patient was observed after discharge from the hospital. On March 15 he first began to complain of precordial heaviness on walking On April 25 he died suddenly

Case 4.—T B, a woman of sixty-four, had experienced two episodes of right upper quadrant, cramplike pain a few years ago For a week prior to hospitalization she complained of anorexia and of a loss of her sense of well-being On December 4, 1947, she developed intermittent cramps in the right upper quadrant of the abdomen radiating to the epigastrium, a sense of epigastric pressure, repeated vomiting of clear fluid and fever of 103 F The family thought that the patient appeared jaundiced and that her urine was dark On the following day the right upper quadrant pains became more severe, the epigastric pressure seemed to radiate substernally for about an hour, and the temperature rose to 104 F The attending physician made a diagnosis of acute cholecystitis and recommended hospitalization, which was accomplished the same day

Upon admission, December 5, the patient's temperature was 101 6 F, pulse 120, respirations 24 and blood pressure 110/74 The heart sounds were good, the rhythm was regular The abdomen was soft but diffusely tender The urine contained no bile The leukocyte count was 15,000 cells per cu mm with 84 per cent neutrophils, the sedimentation rate was 53 mm. in one hour

On December 6 fluoroscopy and roentgenogram of the chest were not abnormal. An electrocardiogram on this date showed a small Q in lead 1, slightly elevated RS-T segments in leads 1 and 4 with slight depression in lead 3 (Fig 4) The T wave was inverted in leads 1 and 4 These changes suggested anterior wall infarction due to acute coronary occlusion. This was confirmed two days later, December 8, when multiple chest leads disclosed a deep Q wave in leads CF 1, 2, 3, elevation of RS-T in CF 1, 2 3, 4, a greater depression of RS-T_3, T_1 was no longer inverted, and the T waves in the chest positions were only slightly inverted

On December 15 the T waves became inverted once again in leads 1 and CF 1-6, T_2 was diphasic The temporary reversion of the T waves toward normal seen in the tracing taken December 8 is not uncommon (Fig 5) Jaffe, Master and Kalter have noted partial or complete return of the electrocardiogram to normal within a few days after the onset of

acute coronary occlusion.[3] This patient subsequently showed the usual progressive changes in the electrocardiogram.

The patient's course was not remarkable except for a period of somnolence, all pain disappeared on the second day A gallbladder examination prior to admission had shown nonvisualization of the gallbladder She was normosensitive to the Libman pain test

Discussion

As we have stated, the purpose of this report is to demonstrate that in actual acute coronary occlusion the pain and symptoms may be entirely or practically altogether below the diaphragm, not in the chest The knowledge that the clinical picture of acute coronary occlusion may present abdominal findings, in addition to thoracic signs, is not new Herrick mentioned this in his original article published in 1912 and referred to earlier papers of Obrastzow and Straschesko and of Engelhardt [1] In 1918, Levine and Tranter described two cases that closely resembled an acute intra-abdominal disease because of the absence of supradiaphragmatic signs and symptoms [3] Their first patient died during induction of ether anesthesia. In their second case laparotomy was deferred because of glycosuria and ketosis, but the patient died the next day after developing heart block. Subsequently, many authors emphasized the point that pain in coronary disease may be referred to the abdomen at least during the early hours [4–11] Libman in particular stressed the fact that atypical clinical pictures in acute coronary occlusion are prone to occur in hyposensitive individuals [12] It may be noted that three of our cases were hyposensitive to the Libman pain test, Case 4 was normosensitive

While epigastric localization of pain is not uncommon as the original site of pain in myocardial infarction, Bean having noted such in 29 instances of 144 cases, the pain almost always radiates substernally or to the precordium and subsequently remains there [13] Levine and Brown, however, stated that occasionally the pain may be entirely confined to the abdomen.[7] This was true in three of our four cases In Case 4, epigastric pressure sensation radiated substernally for about an hour on the second day The pain may be diffuse or even present in the lower abdomen.[14]

Larkin recently reported that some abdominal symptoms—nausea, vomiting or pain—occurred in 20 out of 92 patients, 91 of whom had acute coronary occlusion and one a ruptured aortic aneurysm.[11] Furthermore, the mortality rate in this group was higher than in cases without abdominal symptoms Eleven of his cases had only abdominal symptoms

It may be mentioned here that in our patients occurrence of abdominal pain bore no relation to the site of the myocardial infarct In three cases it was anterior and in the other case posterior

"Abdominal angina" is a term occasionally encountered in medical literature This syndrome is undoubtedly due to pain referred from the heart either in true coronary occlusion or in simple angina pectoris rather than to arteriosclerosis of the abdominal vessels [6,8 15]

Among the diseases that may be simulated by acute coronary occlusion are acute cholecystitis, acute pancreatitis, perforating peptic ulcer, splenic infarction, renal colic, tabetic crisis, acute intestinal obstruction, and adrenal hemorrhage Nausea, vomiting, upper abdominal tenderness, spasm, and even rigidity are common to all Generally, however, in myocardial infarction dyspnea is more apt to be present, likewise, after the onset, some chest symptoms, as substernal tightening, almost always occur Nevertheless, despite the clinical acumen of the attending physician, actually the indispensable diagnostic procedure in the presence of this mimicry of symptoms and signs is the electrocardiographic pattern.

It need hardly be mentioned that acute coronary occlusion can coexist with an acute abdominal episode We have observed a man of seventy-four who developed acute cholecystitis eight days after the onset of a posterior wall infarction due to acute coronary occlusion. The time relationship, indeed, may be exceedingly close, as in the autopsied case reported by Branwood of an acute coronary occlusion which seemed to follow within an hour of a perforated duodenal ulcer [16]

An additional perplexing situation is to be noted Acute abdominal disease may secondarily affect the heart, inducing acute coronary insufficiency This must not be confused with the main subject of this report, which is the converse—namely, acute coronary occlusion in which the complaints are in the abdomen altogether or chiefly However, it is important to realize the magnitude and the principles underlying acute coronary insufficiency so that a clear distinction will be maintained between it and coronary occlusion Acute intra-abdominal disease may act as a precipitating factor in producing coronary insufficiency The usual mechanism in such an instance is a diminution of coronary blood flow resulting from lowered blood pressure and diminished cardiac output incident to shock, peripheral collapse, or hemorrhage The electrocardiographic changes that occur in such conditions must be differentiated from those due to primary cardiac disease, that is, myocardial infarction due to coronary

occlusion This is particularly important since acute intra-abdominal disease may, in addition to the electrocardiographic changes, produce chest pain, shock, tachycardia, and fall in blood pressure These features have been observed in the presence of acute pancreatitis, acute cholecystitis, renal and biliary colic, perforating and penetrating peptic ulcer, gastrointestinal hemorrhage, splenic infarction, acute intestinal obstruction, hiatus hernia, acute peritonitis, etc [14,15,17–21]

Proper evaluation of the electrocardiogram in acute coronary occlusion and in acute coronary insufficiency depends in great measure upon the presence or absence of Q waves and RS-T segment deviations In acute coronary insufficiency there are found, characteristically, RS-T segment depressions and T wave changes in one or more leads, not associated with abnormal Q waves and RS-T segment elevations Such alterations are generally transitory In acute coronary occlusion, on the other hand, the criteria are abnormal Q waves, RS-T segment elevations, and abnormal T waves

Painful stimuli arising from an area of ischemia in the heart muscle travel in the visceral afferent cardiac nerves to the cardiac plexuses and thence to the upper four or five sympathetic ganglia Thereafter they enter the spinal cord usually in the first to fourth thoracic segments, and subsequently pain is referred back to the corresponding dermatomes (precordial, substernal, and left arm areas) However, sensory impulses from the heart may reach different levels of the cord, anywhere from the third cervical to the tenth thoracic vertebrae [22,23] It has been suggested that this may be due to the presence of accessory visceral fibers from the heart Accordingly, pain may be referred to these other corresponding dermatomes and hence be confused with diseases of viscera which normally transmit pain impulses to these levels It is likely that previous disease of such viscera predisposes to increased sensitivity, and the cardiac ischemia reaction serves as a trigger mechanism It has been pointed out that the pain of coronary disease occurring in a patient with previous peptic ulcer, for example, may radiate to or originate in the upper abdomen.[24]

In view of the diagnostic problems encountered it is evident that an electrocardiogram should be taken early in all instances of acute upper abdominal signs and symptoms whether or not chest findings are present More important, procedures such as roentgenograms of the gallbladder and gastrointestinal tract should be deferred until electrocardiographic analysis has been completed

Summary and Conclusions

1 Four cases of acute coronary occlusion with the clinical picture of acute intra-abdominal disease are reported In three of the patients the pain remained entirely confined to the abdomen In each instance the diagnosis was made by the electrocardiogram

2 Such atypical clinical patterns are prone to develop in hyposensitive individuals

3 The site of the myocardial infarct, anterior or posterior, has no bearing on abdominal reference

4 Not only may acute coronary occlusion simulate abdominal disease, but the converse occurs—abdominal disease may clinically resemble acute coronary occlusion and produce electrocardiographic changes characteristic of acute coronary insufficiency

5 The electrocardiogram is the principal diagnostic procedure It should be taken early in every instance of upper abdominal symptoms before subjecting patients to gastrointestinal or gallbladder roentgenograms and similar procedures, and, of course, to operation

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CEREBRAL COMPLICATIONS RESULTING FROM HYPERTENSION CAUSED BY VASOPRESSOR DRUGS IN OBSTETRICS

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THIS report is intended as a caution against the inadvertent combination of vasopressor drugs in obstetrics By producing an acute hypertension, these have caused convulsion, hemiplegia, or severe persistent headache

Posterior pituitary extract and ergonovine are used in obstetrics without fear of a pressor effect which is uncertain and mild Indeed, the opposite action, the production of a shocklike condition by posterior pituitary extract, has been reported frequently The pressor action of posterior pituitary extract and ergonovine deserves special consideration, however, whenever ephedrine sulfate, neosynephrin hydrochloride, or any vasoconstrictor has been or is likely to be used in an obstetric patient The potency of the combination of vasoconstrictor drugs, with posterior pituitary extract especially, is too little appreciated Beck and Ball encountered an instance of convulsion, severe headache, and acute hypertension during spinal anesthesia for cesarean section and three cases of severe headache and hypertension during spinal anesthesia for vaginal delivery [1] These episodes were attributed to sensitivity to ephedrine and epinephrine

No consideration was given to the probable influence of the oxytocic drugs undoubtedly used at some time during the delivery Torrie, reporting a series of cesarean sections under spinal anesthesia, simply mentions the "blood pressure which in some cases reached 180 or 200 mm systolic" [2]

The use of ephedrine or neosynephrin is becoming more common in obstetric patients because of the greater application of caudal and spinal analgesia to vaginal and abdominal delivery Ephedrine or neosynephrin is injected before or during spinal or caudal analgesia to prevent or correct the hypotension frequently caused by the extensive sympathetic block. When these drugs are preceded or followed within a half hour by posterior pituitary extract and/or ergonovine the elevation of blood pressure may be marked and abrupt We observed a significant rise in six cesarean sections and eight vaginal deliveries The rise in these cases ranged between 50 to 100 mm. Hg systolic pressure The result has always been a severe headache One patient developed a hemiplegia as described in the following case report

Case Report

A thirty-seven-year-old Negro primipara was subjected to an extraperitoneal cesarean section because of cephalopelvic disproportion after a twenty hour test of labor She was tall, muscular, weighed 192 pounds, and was in good condition The blood serologic test was negative, antiluetic therapy had been received in 1940 Her blood pressure had been normal throughout pregnancy and was 120/80 mm Hg just before anesthesia.

The anesthesia was a fractional spinal with 90 mg procaine hydrochloride in 45 mg per cc concentration Ephedrine sulfate, 50 mg , was injected subcutaneously ten minutes before the anesthesia The blood pressure fell to 90 mm Hg systolic, and the pulse rose from 100 to 120 when the fetus was delivered, which was thirty minutes after the preoperative ephedrine. Neosynephrin hydrochloride 0 5 cc , was administered subcutaneously to secure a gradual, sustained return of blood pressure to normal with a decrease of the tachycardia. The delivery of the baby was followed by a moderate loss of blood At the request of the surgeon 0 5 cc of Infundin (5 units posterior pituitary extract) by the subcutaneous route and 1 cc of Ergotrate by vein were injected. Unknown to the anesthetist, the surgeon had injected 1 cc of Infundin (10 oxytocic units) into the uterine wall just before incising it. Ten minutes after the birth of the child and five minutes after the anesthetist's injections, the blood pressure rose to 220 mm. Hg systolic. The hitherto quiet patient complained bitterly of headache while her systolic blood pressure ranged between 180 and 220 during the following thirty minutes in spite of an addition of intraspinal procaine, 45 mg , and elevation of the head of the table to lower the blood pressure. The systolic tension then dropped to 100 mm. Hg aided by the moderately excessive blood loss. The patient became comatose about one-half hour after the birth of the baby at the peak of the acute hypertensive episode. The coma was attributed at the time to the morphine sulfate $^1/_8$ grain (7 5 mg) and scopolamine $^1/_{100}$ grain (0 2 mg.) administered immediately after the evacuation of the uterus The mother was returned to bed still in coma. On the next day the patient showed a right hemiplegia, right facial palsy of central origin, confusion, asphasia and fecal and urinary incontinence She improved, but was discharged still showing the hemiplegia and asphasia. These have persisted

Discussion

The anesthetist was unaware of the custom of this surgeon to inject posterior pituitary extract into the uterus We have long considered this route as potentially dangerous because it easily

allows the injection to be intravenous or to act very much like one [2] In fact only rarely have we seen an obstetrician test the intrauterine injection against possible intravenous location Furthermore, this route is illogical in view of the fact that contraction of the whole uterus depends on circulatory distribution of the drug to the entire organ and not on local diffusion Failing to prevent the intrauterine injection but aware of it, the anesthetist would have omitted any preparation of whole posterior pituitary extract in complying with the surgeon's request to inject an oxytocic drug He would have substituted Pitocin which does not contain a significant quantity of the vasopressor factor

Melville proved the synergism of posterior pituitary extract and ephedrine in elevating the arterial blood pressure [4] The vasoconstrictor power of posterior pituitary extract on capillaries and arterioles, especially the former, is normally compensated by a decrease in heart rate and cardiac output as demonstrated by Grollman and Geiling [5] Ephedrine prevents the heart from mitigating the peripheral vasoconstrictor action of whole posterior pituitary extract Furthermore, ephedrine adds its own effect by a marked increase of cardiac output and by arteriolar and venous constriction. The resultant rise in blood pressure is consistently greater than that produced by either drug alone Dripps and Deming have demonstrated systolic blood pressure levels well over 200 mm Hg , lasting several hours and accompanied by severe headache, following the combined use of 10 units of pitressin and 50 mg of ephedrine before spinal anesthesia [6] This potent pressor combination, in smaller doses than that injected in this case, has been employed by one of us in special cases of spinal anesthesia since 1940 with good results and no complication.[3]

Another factor which tends to augment the rise of blood pressure is the "autotransfusion" effect of the gravid uterus when the fetus and placenta are delivered and oxytocics are injected The squeezing out of a significant quantity of blood into the general circulation and the decrease in the size of the uterine vascular bed tend to cause an elevation of blood pressure, especially if it is low at the time of delivery This observation also has been noted by others [7]

Parenthetically, it may be added that this case provides another reason for the delegation of all drug management in the operating or delivery room to the anesthetist At least, he should be deliberately informed of the surgeon's intention to use any potent pharmacologic agent Only in this way can we avoid the harmful pharmacologic combinations familiar to the anesthesiologist Other similar combinations, now well known, have occurred in the practice of gynecology and obstetrics with fatal results, e g , posterior pituitary extract during cyclopropane anesthesia and epinephrine during chloroform or cyclopropane anesthesia [8–10]

A drug-induced acute hypertension may be seen during vaginal delivery or uterine dilatation and curettage for incomplete abortion under caudal or spinal analgesia, for here too ephedrine or neosynephrin is sometimes required to prevent or treat hypotension. When whole posterior pituitary extract and/or ergonovine is injected, the effect on blood pressure may be quite marked if ephedrine or neosynephrin has been injected within the preceding thirty minutes We observed eight such incidents until we used Pitocin instead of whole posterior pituitary extract and injected ergonovine intramuscularly instead of intravenously Fortunately, these episodes of acute hypertension during vaginal delivery have caused only severe headache The headache is quite disturbing, nevertheless, inasmuch as it is very painful and may remain six hours or more, and occasionally for days The headache depends more on the rapidity of the rise than on the maximum height of the systolic blood pressure Patients have cried out with pain when the systolic blood pressure rose abruptly to 160 mm Hg

The persistence of the headache for hours or days after the blood pressure has returned to normal indicates that the trauma produced by the acute stretching of the cranial arterial walls continues after the recession of the hypertension

Ergonovine malate (Ergotrate) in itself causes little or no rise in blood pressure when injected intravenously in man, despite its ability to cause vasoconstriction [11] The presence of ephedrine, however, permits intravenous Ergotrate to cause a 60 mm. Hg rise in systolic blood pressure We have observed this repeatedly Because of the demonstrated greater effect of ephedrine with posterior pituitary extract, we are inclined to be more cautious with this combination than with ergonovine-ephedrine

Treatment of the acute hypertension should be immediate. Beck and Ball have used amyl nitrite inhalation [1] We have tilted the table from the usual Trendelenburg or horizontal position desired by the operator to a slight Fowler's position. If the patient was under fractional spinal anesthesia, another dose of procaine was injected into the spinal canal Intravenous pentothal sleep was produced in three instances to obtain the mild antagonistic effect of a barbiturate against excessive peripheral vasoconstriction and to sedate the patient in distress This last measure has always been successful in moderating the hypertension It

was not applied in the case which developed hemiplegia

Summary and Conclusions

1 Hemiplegia, convulsion, and severe headache have been observed as results of the acute hypertension induced by synergistic pressor action of posterior pituitary extract and ergonovine with ephedrine or neosynephrin during spinal and caudal analgesia in obstetrics A case of hemiplegia due to drug-induced hypertension during cesarean section is reported

2 Ergonovine shows a regular but mild pressor effect after intravenous injection in an ephedrinized patient Its synergistic action should be regarded as possibly dangerous when used simultaneously with posterior pituitary extract in a patient under the influence of ephedrine or neosynephrin

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CTICAL ASPECTS OF CONTROL OF DICUMAROL THERAPY

ARD E BLUMENTHAL, M D , Hempstead, New York

E value of the anticoagulant drug dicumarol ,3′-methylene-bis (4-hydroxycoumarin)] in reatment of thromboembolic disease has clearly demonstrated in recent years The se of this paper is to emphasize some practi- pects of the control of dicumarol therapy are of particular interest to the clinician ises the smaller hospitals

orts from the Mayo Clinic within re- years have revealed that in cases of non- pulmonary embolism or infarction the nce of subsequent phlebothrombosis, bophlebitis, and pulmonary embolism or tion could be reduced from 43 8 per cent to cent by dicumarol therapy, moreover, the nce of subsequent fatal pulmonary embol- as reduced from 18 3 per cent to 0 3 per cent ises of postoperative thrombophlebitis and othrombosis the incidence of fatal pul- ry embolism was decreased from 5 7 per to 0 by dicumarol therapy [1] During the two years a controlled study on the effective- of dicumarol in acute myocardial infarction een carried out at 16 large hospitals through- he country under the auspices of the Ameri- Heart Association and the U S Public th Service Dr Irving S Wright, chair- of this cooperative study, recently revealed statistical analysis of the first 800 cases gave ollowing approximate gross results

eath in the control series	24%
eath in the dicumarol-treated series	14 9%
romboembolic complications per 100 cases	
In the control series	36 per 100
In the dicumarol-treated series	14 per 100

Of these 14, seven were while the patients were not under effective levels of treatment, either because they had not yet received any anticoagulant or because the complication came on before sufficient time had passed for the anticoagulant to be effective [2]

arious criteria for calculating the dose of marol have been described in the literature not generally appreciated, however, that in rast to a drug such as insulin, which is pre- ed daily on the basis of blood and/or urinary ose determinations, quantitative chemical s, dicumarol is prescribed daily on the basis biologic assay, the prothrombin determina-

A blood glucose report of 100 mg per cent 50 mg per cent from a number of laboratories a relatively constant significance, the dose of lin would be essentially the same regardless he laboratory in which the glucose determination was made A prothrombin time report of thirty or forty seconds from several laboratories may indicate widely varying prothrombin concentrations Therefore, the dose of dicumarol might have to vary considerably, depending on the laboratory which performed the test It is not correct or safe, therefore, for a clinician to base the dosage of dicumarol on one or another of the many prothrombin time schedules described in the literature

Dicumarol is administered in single daily doses on the basis of the prothrombin concentration of the plasma previously determined on the same day The only test of prothrombin concentration available for routine clinical use is the one-stage Quick procedure or one of its modifications Prothrombin concentration is estimated by the rate at which oxalated plasma clots when thromboplastin and ionized calcium are added to it The relationship between prothrombin concentration and the clotting time or "prothrombin time" is hyperbolic, but the exact shape of the hyperbola varies considerably with the nature of the thromboplastin used, the calcium concentration, and the diluent in which the prothrombin is dissolved

The calcium concentration and the diluent can be relatively easily standardized, but unfortunately there is not available a universally standard thromboplastin There are several reasons for this First, thromboplastin is a dried extract derived from various tissues of the body, particularly the brain or lung Most workers use either rabbit-brain or rabbit-lung thromboplastin, others have used human brain, horse brain, and even the venom of the Russell viper Each type of thromboplastin has its own clotting characteristics Second, there are differences in the methods of extraction. Some workers extract the original tissue with acetone, some do not, some workers pulverize the dried extract, others do not Extraction with acetone produces a more potent thromboplastin, pulverizing the extract produces a less potent thromboplastin The final step in extracting the thromboplastin is to suspend it in saline, and heat the suspension over a constant temperature water bath for a fixed period of time, during which time the suspension is stirred Various workers use temperatures ranging between 37 and 56 C , the time of heating generally ranges between ten and fifteen minutes, the amount of stirring varies in the different technics Generally speaking, with a higher temperature, longer heating, and more vigorous stirring, the resultant thromboplastin

was not applied in the case which developed hemiplegia.

Summary and Conclusions

1. Hemiplegia, convulsion, and severe headache have been observed as results of the acute hypertension induced by synergistic pressor action of posterior pituitary extract and ergonovine with ephedrine or neosynephrin during spinal and caudal analgesia in obstetrics. A case of hemiplegia due to drug-induced hypertension during cesarean section is reported.

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o standardize the thromboplastin is often not vailable, moreover, it is not justified, since here is no practical advantage in reporting the esults in terms of prothrombin time Nevertheess, if it is desired, the thromboplastin solution nay be "standardized" by altering from day to lay, if necessary, the technic of its preparation o that at all times the 100 per cent or undiluted ontrol plasma will clot in a previously selected narrow range, e g , fourteen to sixteen seconds, nd the 12 5 per cent or 20 per cent dilution of he control plasma will also clot in a previously elected narrow range, e g , thirty-five to thirtyight seconds (some workers prefer the 12 5 per ent dilution, others the 20 per cent dilution)

The diluent is usually isotonic saline, but plasma vhich has had its prothrombin removed by idsorption with barium sulfate may be used The shape of the hyperbolic prothrombin activty curve may vary depending upon which diluent s used Diluted or prothrombin-deficient plasma nust be used to standardize the thromboplastin Hurn, Barker, and Magath said, "On he basis of more than 20,000 prothrombin times n the past three years we have found that the preparation of thromboplastins which will give consistent results with normal plasmas is relatively simple, but the preparation of thromboplastins which give consistent results with prothrombin-deficient plasmas is difficult The importance of checking each new preparation of thromboplastin should be stressed Unfortunately, thromboplastins prepared in like manner do not always possess similar activity We check each fresh preparation with a previously 'standardized' thromboplastin Thromboplastin was considered to be standardized if the prothrombin time of 100 per cent normal plasma was seventeen to nineteen seconds, and the prothrombin time of the 20 per cent dilution of normal plasma was approximately thirty-five seconds "[3] (These prothrombin times are of no fundamental importance and would not necessarily be significant for any other laboratory)

The clinician may wonder how all this pertains to him After all, prothrombin determination is a laboratory procedure and presumably should be left to the laboratory technicians and directors Unfortunately, too few technicians and even directors are acquainted with the necessity and technic of "standardizing" thromboplastin if prothrombin concentration is to be correctly reported in terms of prothrombin time, nevertheless, prothrombin concentration is reported in terms of prothrombin time in many laboratories where standardization is not carried out Therefore, it becomes the responsibility of each clinician to satisfy himself either personally or by proxy that the prothrombin determination test is being performed properly if he wants to protect his patient from the insecurity of inadequate dicumarolization or the danger of excessive dicumarolization Unfortunately, few clinicians can devote the time necessary for such study It is suggested, therefore, that at least one qualified physician should be designated to supervise personally the prothrombin determination technic in every hospital laboratory and to set up a schedule for dicumarol therapy based on the prothrombin determination technic used in that laboratory

If the results are expressed in terms of prothrombin activity and if the thromboplastin used is derived from rabbit-brain, it is suggested that the prothrombin activity be maintained between 10 and 30 per cent, a range established by much experience at the Mayo Clinic [2 4] Quick stated that, on the basis of animal experiments, as well as by clinical observations, 30 per cent prothrombin activity was the critical level at which hemostasis was definitely affected, and it could be assumed to be the level below which intravascular clotting was inhibited, and the level to which prothrombin must be reduced for effective therapeutic results [5]

Prothrombin concentration may be safely expressed in terms of prothrombin time only if the technic and thromboplastin are standardized Even then, each laboratory must devise its own schedule range as a basis for adequate and safe dosage of dicumarol Dr Nelson W Barker of the Mayo Clinic writes "We used M—— thromboplastin at one time but could not make our results check with those of Dr S—— either for normal plasma or for the plasma of patients with varying degrees of prothrombin deficiency This is no criticism of Dr S——'s method but it merely shows that it is impossible to be sure that you can follow somebody else's prothrombin time schedule in seconds even though you use the same material for your thromboplastin "[6]

The clinician should be aware of the following procedures used in some hospitals First, it is incorrect and may be dangerous to express prothrombin concentration by dividing the prothrombin time of an undiluted normal control by the prothrombin time of the dicumarolized patient and multiplying by 100 per cent, e g , 15 divided by 30 multiplied by 100 per cent equals 50 per cent, or 15 divided by 45 multiplied by 100 per cent equals 33 3 per cent This is obviously incorrect since it is based on the erroneous assumption that the relationship between prothrombin time and prothrombin concentration is linear, whereas it is actually hyperbolic This method of estimating prothrombin concentration also ignores the fact that two thromboplastins

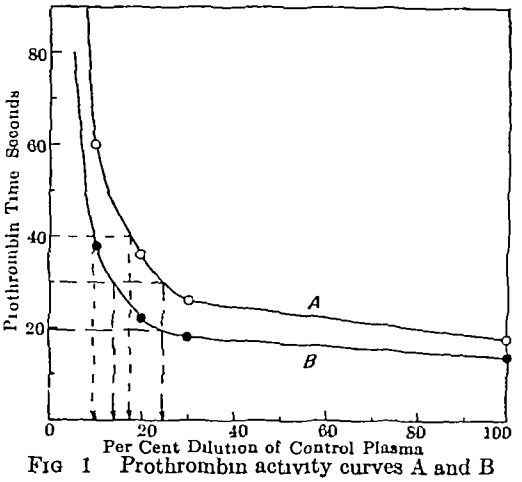


FIG 1 Prothrombin activity curves A and B

solution is less active and gives prolonged prothrombin times Third, there are differences in the concentration of the dried thromboplastin-saline suspension ranging from 2 to 10 per cent Generally, the higher the concentration, the less potent the resultant thromboplastin solution is Fourth, all dried thromboplastin extracts are contaminated more or less by clot-acceleratory and clot-inhibitory factors, whose concentration varies in different batches of thromboplastin, sometimes their concentration varies even between different portions of the same batch Consideration of the above multiple factors readily explains why thromboplastin solutions of the same potency can rarely be prepared in different laboratories, moreover, even the minute variations in procedure used by different technicians in the same laboratory may produce thromboplastins of varying potency Consequently, it is very difficult and often impossible to reproduce the same hyperbolic curve in different laboratories, or sometimes even in the same laboratory on different days It is obvious then that a "prothrombin time" range of thirty to forty seconds may indicate one range of prothrombin concentration in laboratory A on a certain day, and an entirely different range in laboratory B on the same day or in laboratory A on another day In Table 1, based on Figure 1, it is seen that a prothrombin time range of thirty to forty seconds indicates a range of 24 5 to 17 5 per cent prothrombin concentration in laboratory A, but a range of 14.0 to 9 5 per cent prothrombin concentration in laboratory B

Since "prothrombin time" frequently has no constant significance, the concept of prothrombin activity has been introduced A hyperbolic curve is constructed every day by plotting prothrombin times against the dilutions of normal control plasma, usually 100, 30, 20, and 10 per cent, which gave those prothrombin times

TABLE 1 —PROTHROMBIN ACTIVITY (CONCENTRATION) AS DETERMINED BY TWO DIFFERENT TECHNICS

Prothrombin Time Sec	Prothrombin Activity Per Cent— Technic A	Technic B
30	24 5	14 0
40	17 5	9 5

TABLE 2 —DATA ON WHICH PROTHROMBIN ACTIVITY CURVES ARE BASED

Dilution of Control Plasma Per Cent	Prothrombin Times Sec — Technic A	Technic B
100	18	14
30	26	18
20	36	22
10	60	38

(Fig 1, Table 2) (It is more accurate to u pooled, fresh, normal plasma rather than a sing plasma as the control) From this curve one ca determine what dilution of the control plasm would give the same prothrombin time as th plasma of a patient on dicumarol, this dilutio indicates the prothrombin activity of th plasma For example, if plasma X of unknow prothrombin concentration gives a prothromb time of thirty seconds using technic A, plasm X will correspond to a 24 5 per cent dilution control plasma and may be said to exhibit 24 per cent prothrombin activity If the sam plasma X were submitted to a prothrombin te using technic B, a prothrombin time of nineteen and a half seconds would be obtained (Fig 1 Thus, two different prothrombin times ma indicate the same prothrombin activity or pr thrombin concentration It can be seen readil that if a clinician wished to maintain a dicumaro ized patient in the range of 10 to 30 per cent pr thrombin activity, the prothrombin time rang would have to be twenty-six to sixty seconds f technic A but eighteen to thirty-eight second for technic B

Some of the advantages of expressing pr thrombin concentration in terms of prothrombi activity rather than prothrombin time are s follows (1) The effect of the daily variation i potency of thromboplastin is practically eradicate if one is considering the results in the sam laboratory, thus one can compare with grea accuracy prothrombin concentrations reporte on different days (2) One can better, althoug not absolutely, correlate the results obtained i different laboratories, provided the same type o thromboplastin, e g , rabbit-brain or rabbit-lung is used in these laboratories

It should be pointed out that in the same labo ratory if the thromboplastin and the technic o prothrombin determination are rigidly "standardized," prothrombin time may be used as ar accurate measure of prothrombin concentration In many hospital laboratories, especially those where the staff is composed of only one or two technicians, the additional time and labor required

WHITE AND NONWHITE MATERNAL MORTALITY IN BROOKLYN, NEW YORK, 1947

CHARLES A GORDON, M D , F A C S , Brooklyn, New York

(Chairman, Brooklyn Committee on Maternal Welfare)

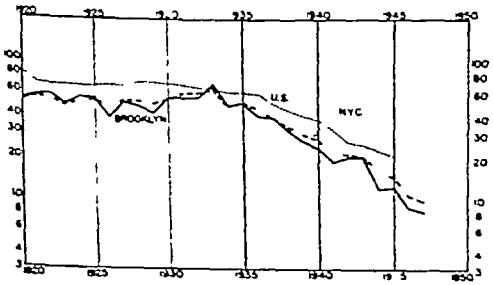
MATERNAL death rates continue to decline In 1946, notwithstanding a 20 per cent increase in the number of births in the United States, the number of puerperal deaths decreased 9 1 per cent with an estimated maternal mortality rate of 1 6 per 1,000 live births—a new record low [1 2] The statistics of mortality show decline in all three of the leading causes of death Considerable difference between white and nonwhite mortality risk continues Up to 1946 the nonwhite rate was more than two and one-half times as large as the rate for the white race, with greatest relative risk in toxemia

The rate for the City of New York for 1947 was 9 1 per 10,000 total births The nonwhite puerperal death rate was three times as large, and the rate for abortion seven times as large as the rate for white women The extraordinarily low maternal death rate of this great city of nearly eight million people, with a nonwhite population much larger than is indicated by the 1940 census, is a great achievement in public health

Brooklyn, with more births than any other borough and despite a record number of births in 1947, has a new low maternal death rate of 7 9 per 10,000 total births, a reduction of 9 per cent The nonwhite rate was two and one-half that of white women, and the abortion death rate was five times as great A fairly consistent parallel may be seen in the rates for the United States the City of New York, and Brooklyn over the last twenty-five years with sharper decline in Brooklyn in 1944 and 1946 (Fig 1)

PUERPERAL MORTALITY

UNITED STATES, CITY OF NEW YORK, AND BOROUGH OF BROOKLYN*



* United States Rates Per 10,000 Live Births, New York City Rates Per 10 000 Total Births, Brooklyn Rates Per 10,000 Total Births

FIG 1

In 1947, 76 women died in Brooklyn of causes associated with pregnancy and childbirth The Bureau of Records of the Department of Health City of New York assigned 58 cases to puerperal causes and 18 deaths to nonpuerperal causes, of which only cardiac disease deserves special mention

In any critical study of maternal mortality it is necessary to examine all the deaths, not only those assigned by the statistician to puerperal causes Particularly because of heart disease, the true risk of pregnancy cannot be measured otherwise Heart disease is the leading cause of death in the United States As a considerable increment of our declining maternal death rate, it grows steadily in importance As a matter of fact, its true significance has not yet been widely appreciated

In all, 15 deaths were associated with heart disease, eight deaths were assigned by the statistician directly to this cause and were not counted as maternal deaths In seven cases death was assigned to puerperal causes, yet the primary cause of death in all but one of these 15 deaths was cardiac

If we are of the opinion, and I believe we are, that a patient who has decompensated during pregnancy should not be treated at home but should be hospitalized until term, no matter how far off that may be, prenatal care was inadequate in every case but one The significant data will be found in Table 1

The official tabulation and assignment of puerperal deaths for 1947 with comparison of deaths in 1946 are shown in Table 2

Death Early in Pregnancy

Other than heart disease, death early in pregnancy was due to abortion (nine cases) and ectopic pregnancy (four cases)

The uterus was perforated in two of the four cases of induced abortion In three cases hemorrhage was profuse and was the direct cause of death in two cases, in spite of administration of large amounts of blood and plasma In one of these cases laparotomy preceded curettage, since ectopic pregnancy was suspected, in the other a four-months placenta was retained for six hours after hospitalization when severe hemorrhage occurred, followed by manual removal, 1,000 cc of plasma, 4,000 cc of blood, and finally

of significantly different potency may give similar prothrombin times on undiluted control plasma, but markedly different prothrombin times on prothrombin-deficient plasma, either diluted control plasma or dicumarolized plasma [3]

A second procedure, which is commonly utilized to estimate the therapeutic range of prothrombin concentration, is to give enough dicumarol to lengthen the prothrombin time of the patient to two to three times the prothrombin time of the control plasma In ordinary practice this is generally effective, but basically it is incorrect for the same reasons as noted above for the first procedure and may on occasion prove dangerous To illustrate, prothrombin activity curve A reveals a prothrombin time of eighteen seconds for the undiluted control, two to three times 18 gives thirty-six to fifty-four seconds which corresponds approximately to 20 to 11 5 per cent prothrombin activity (Fig 1) Prothrombin activity curve B, obviously obtained with a more potent thromboplastin than A, shows a fourteen-second prothrombin time for the undiluted control, two to three times 14 gives twenty-eight to forty-two seconds, which corresponds to a prothrombin activity range of approximately 15 to 9 0 per cent (Fig 1) Both of these ranges would be safe and effective, but with thromboplastins more active than that giving prothrombin activity curve B, a critically low range, dropping considerably below 10 per cent prothrombin concentration, would be produced with the resultant possibility of serious hemorrhage With thromboplastins much less active than that giving prothrombin activity curve A, a relatively high range of prothrombin concentration exceeding 30 per cent could result, with the resultant danger of inadequate protection from thromboembolic phenomena

A third incorrect procedure is that of testing 100, 30, 20, and 10 per cent dilutions of a patient's plasma before he receives dicumarol and using these data as the basis for a prothrombin activity curve by which future dicumarol dosage may be established for that patient This procedure is incorrect for several reasons, first, a patient with thromboembolic disease is not a valid control, second, a prothrombin activity curve based on a valid control or group of controls should be constructed every day, using the *same* thromboplastin solution with which the patient's prothrombin determination will be performed

There is considerable variability in the quantity of dicumarol required by different individuals to remain in a selected range of prothrombin activity or prothrombin time Some patients are sensitive to small doses of dicumarol, others are resistant to large doses Each patient must be treated individually One may use, however, the following schedule as a rough guide The first dose is 300 mg , thereafter, 100 to 200 mg usually the latter, are given on each day that the prothrombin activity exceeds 20 per cent I the prothrombin activity drops below 20 per cent no dicumarol is given that day If the prothrombin activity falls below 10 per cent and remain there for more than one day, 72 mg of menadion bisulfite (synthetic vitamin K) are given intravenously, and may be repeated every four t six hours if necessary If a patient is found to be resistant to dicumarol, the dose may hav to be increased to 300 mg on those days when the prothrombin activity exceeds 30 per cen If a patient is found to be sensitive to dicumaro the dose may be decreased to 50 mg on those day where the prothrombin activity exceeds 20 p cent Once again it should be emphasized th the above suggestions form only a rough guid the ability to bring the prothrombin concentration into the desired therapeutic range rapid and keep it there without excessive fluctuatio can be acquired only through experience

Summary

1 Dicumarol therapy has significantly duced the mortality and thromboembolic co plications associated with acute myocard infarction, phlebothrombosis, thrombophlebi and pulmonary embolism and infarction.

2 The administration of dicumarol in s but adequate doses depends on the proper labo tory determination of plasma prothrom concentration.

3 Plasma prothrombin concentration may expressed correctly in terms of either prothro bin activity or prothrombin time, but it is laborious, less time-consuming, and genera safer to use prothrombin activity

4 It has been emphasized that the prac of basing dicumarol dosage on various prothro bin time schedules described in the literat is incorrect and may be dangerous

5 It is suggested that at least one quali physician be designated in each hospital to sup vise the prothrombin determination tech and to set up a schedule for dicumarol ther based on the prothrombin determination tech used in the laboratory of that particular hospi

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TABLE 3.—HEMORRHAGE AS THE CAUSE OF MATERNAL DEATH IN BROOKLYN 1947

Cause	Statistics	Reassignment
Abortion	9	3
Ectopic	4	4
Hemorrhage	12	12
Toxemia	11	1
Infection	10	1
Accidents	7	2
Other	5	1
Total	58	24

received neither blood nor plasma Another who died of inversion of the uterus received 250 cc of plasma, and another patient who died of postpartum hemorrhage after cesarean section received 500 cc of plasma

When hemorrhage has been profuse, administration of plasma is but a burnt offering to convention Often it is used when the still small voice within has finally been heard Although still widely used as a stopgap, use of pooled plasma implies considerable risk of homologous serum jaundice It should be discarded as dangerous

We have repeatedly shown that hemorrhage is actually the leading cause of maternal death That the situation remains unchanged will be seen in Table 3

Anesthesia

Other than in three cases following operation for ectopic pregnancy under cyclopropane, death was due to anesthesia in at least five cases and probably two more as follows *Aspiration of* vomitus during gas-oxygen-ether anesthesia (two cases), spinal anesthesia for cesarean section (one case), caudal anesthesia during low forceps delivery (one case), and cyclopropane and curare in the course of hysterectomy for retained placenta In two additional cases death occurred shortly after low forceps delivery under general anesthesia, cyclopropane and gas-oxygen-ether sequence

There is risk in allowing food to any woman once labor is established That long labor presents a food problem which may become serious is admitted Both obstetrician and anesthetist must be ever alert to the hazards of induction and emergence Anesthesia should never be crowded if the breath is held or attempts at vomiting occur When induction is complete, the anesthetic level should not be lowered until the need for anesthesia is at an end Reinduction for repair of episiotomy adds to the risk

The ease of induction and recovery appear to make cyclopropane an asset to the obstetrician, but its very potency, danger of ventricular fibrillation, and hazard of explosion should prohibit its use in other than exceptional circumstances There is evidence that the favorable attitude of many obstetricians to cyclopropane should be reviewed The risks incident to anesthesia for delivery, and particularly in the case of cyclopropane, are far greater than is generally thought

Cesarean Section

Death was associated with cesarean section in 15 cases The causes of death were postpartum hemorrhage (four cases), anesthesia (one case), eclampsia (two cases), heart disease (three cases), and infection (five cases)

The lower segment operation had been selected for all five patients who died of infection, in only one case had labor lasted as long as twelve hours Two women who were not in labor died of embolism following thrombophlebitis, one on the ninth day, on her way home from the hospital, the other on the seventh day shortly after ligation of the inferior vena cava

Year after year in Brooklyn, cesarean section has been associated with maternal death in a ratio of approximately 1 4, yet, broadly speaking, the public and, unfortunately, some of those who actually perform the operation, look upon it as a relatively easy and safe procedure Death from infection cannot always be prevented, nor from hemorrhage, but no cesarean section should be performed without 1,000 cc of suitable blood on the delivery floor Only those qualified to examine its indications, weigh the risk, and cope with the situations which may arise should perform cesarean section The decision to perform the operation is more momentous than selection of the type of operation

The Nonwhite factor

In our national statistics on maternal death, decline has been rapid and uninterrupted since 1937, yet a definite racial differential remains constant, with mortality risk for nonwhite much higher than for white women Not only that, but reduction in rates for the principal causes of maternal death is not parallel In 1945, the nonwhite rate was 4 5 or two and six-tenths times as large as the 1 7 rate for white women, this difference was maintained in the rates for infection and hemorrhage, but the rate for toxemia was three times the white rate, just as it is in the City of New York

Again in New York City the nonwhite rate for abortion is seven times the white rate, while in Brooklyn it is five times as large Even these high rates are better than those of a decade ago Trustworthy national statistics on the frequency of death from abortion are not to be had In 1940 official estimates rated abortion as contributing 30 to 35 per cent to maternal deaths from all causes

TABLE 1.—HEART DISEASE ASSOCIATED WITH PREGNANCY (PUERPERAL AND NONPUERPERAL DEATHS)

	Number of Cases	Deaths
Rheumatic—all admitted in failure	8	6 died undelivered 2 low forceps
Hypertensive	3	1 induced abortion (infection) 1 therapeutic abortion (failure) 1 admitted in failure improved died at home
Congenital—all cesarean section	4	3 died of cerebral embolism

fatal hemorrhage In another case therapeutic abortion at three months for malignant hypertension was followed by heart failure one week later In another case, since the placenta could not be expressed from a large myomatous uterus, hysterectomy was performed under cyclopropane anesthesia and curare, sudden death occurred before closure of the peritoneum

There were four operations for ectopic pregnancy, in three of which hysterectomy was performed All patients received large amounts of blood Although the peritoneal cavity was filled with blood in every case curiously enough death was not actually due to hemorrhage in any case In three cases cyclopropane anesthesia contributed to death, reported as due to widespread pulmonary atelectasis (one case), left side heart failure (one case), and prolonged pulmonary edema, clearly not of cardiac origin

Infection

There are 11 cases in this group In eight cases in which a diagnosis of septic pulmonary embolus is well supported, delivery was associated with cesarean section (three cases), low forceps (three cases), manual removal of the placenta (one case), and spontaneous delivery (one case) In five cases in which phlebitis preceded embolism, early ambulation had been practiced, in three of these cases sudden death occurred shortly after discharge from the hospital

It is good to get women up and about reasonably soon after parturition, not for prevention of embolism, but for practical reasons There can be no doubt that chemotherapy and antibiotics are largely responsible for the sharply reduced national death rate from sepsis However, this therapy is not likely to be successful in the treatment of thrombophlebitis and prevention of embolism Prophylaxis by nice technic, minimal trauma, and maintenance of high antepartum and postpartum hemoglobin levels is more helpful than therapy Every woman who dies of puerperal infection has had her chance with penicillin

TABLE 2.—PUERPERAL DEATHS—BROOKLYN 1947

Index* Rubric	Cause	1947	1946
140 141	Abortion	9	7
142	Ectopic	4	2
143 to 146	Hemorrhage	12	8
144 to 148	Toxemia	11	12
147	Infection	10	12
145 to 149	Other diseases and accidents	7	11
150	All other	5	5
	Total	58	57
	Nonpuerperal	18	15
	Rate (per 10 000 total births)**	7 9	8 7

* Manual of Joint Causes of Death, Washington D C U S Government Printing Office 1940
** Rate in 1937 was 40 7

Toxemia

With 11 cases officially assigned to toxemia, another was found in the nonpuerperal group Prenatal care was good in but four cases Cesarean section was performed in four cases, twice shortly after repeated convulsions Another patient was delivered by median forceps in the midst of eclampsia In one case hemorrhage was profuse and repeated, yet death was immediately due to eclampsia

As in cardiac disease toxemia of pregnancy is best managed in the hospital Only there can antepartum management be all that it should be It is not always possible to know when and how pregnancy should be terminated, yet danger signals may, as a rule, be easily recognized Operative procedures like midforceps and cesarean section, particularly under general anesthesia, are controllable factors of death

Hemorrhage

Other than in abortion and ectopic pregnancy, hemorrhage was the cause of death in 24 cases and a contributory cause in many others. It is often difficult to discover the incidence of hemorrhage On the certificate of death it may fail of mention or be eliminated by statistical rule Review of the case record may not be any more helpful, for death often is not simple but due to a chain of circumstances Placenta previa may be primary, yet hemorrhage may be minimal, or after formidable hemorrhage death may be immediately due to anesthesia, embolism, peritonitis, or even an eclamptic convulsion

In 13 cases death was due to postpartum hemorrhage and shock associated with cesarean section (three cases), abruptio placentae (five cases), rupture of the uterus (two cases), rupture of the vagina (one case), inversion of the uterus (one case), and version (two cases) Hysterectomy was performed in four cases, in two of which hemorrhage continued after removal of the uterus

Some patients received as much as 5,000 cc of blood, others as little as 500 cc or none at all Many were given large amounts of plasma as well One patient with rupture of the uterus

A CLINICAL STUDY OF THE EFFECT OF URECHOLINE ON PARALYTIC ILEUS AND URINARY RETENTION

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(From the Buffalo General Hospital)

MANY drugs have been studied in the past in an effort to find a satisfactory answer to the prevention, control, or relief of postoperative gastrointestinal and urinary distention We recently had the opportunity to test the efficiency of a drug, Urecholine, in treating these conditions occurring at the Buffalo General Hospital * This experience will be presented in the hope that others may find further value in the use of this drug

Like many other choline derivatives, Urecholine has a parasympathomimetic action It was synthesized in 1935 by Major at the suggestion of Simonart, who conceived such a drug having an action like Doryl but lacking its nicotinic-like effect ** Starr and Ferguson investigated its action in various normal and abnormal conditions and especially in postoperative urinary distention [1] It was noted to have caused a desire to void and an increase in peristalsis Its action on salivation, sweating, circulation, and heart rate was reported to be minimal

The popularity of vagotomy in the treatment of peptic ulcer recently directed attention to Urecholine in treating the atonic distended stomach occasionally seen following vagus section [2-5] A fair number of patients have responded very well to such treatment with relief of distressing symptoms Its effect upon gastrointestinal motility has been confirmed by x-ray and fluoroscopic examinations and by balloon kymograph studies [6-8] A further review of the available literature suggested that this drug might be efficacious in controlling the postoperative atonic gastrointestinal tract and urinary bladder

To test this thesis, therefore, a clinical study was undertaken In an effort to minimize the many variables in such a study, specially prepared sheets were placed on the charts of selected patients to record certain observations and reactions Urinalyses and blood counts were also followed in many individuals

We were interested to know whether the incidence of ileus and abdominal distention could be reduced if a group of postoperative patients was started on prophylactic doses of Urecholine for the first few days when compared with a similar control group not receiving the drug These patients were almost all on the surgical service All operations were performed under general or spinal anesthesia The preoperative and postoperative treatments were well standardized A determined effort was made to avoid any bias so that the undertaking would merely ascertain the facts as indicated in the final tabulations

Group I

A total of 40 patients received Urecholine prophylactically during the immediate postoperative period A similar number were checked as controls The various operations are listed in Table I

TABLE 1.—OPERATIONS ON 40 PATIENTS (URECHOLINE USED PROPHYLACTICALLY IN POSTOPERATIVE PERIOD)

Operations	Number of Cases
Cholecystectomy	8
Appendectomy	8
Inguinal herniorrhaphy	5
Ventral herniorrhaphy	2
Exploratory laparotomies	6
Pelvic operations	7
Intestinal resections	4
Total	40

Ten milligrams, three times daily, were given to those patients treated prophylactically The oral route of administration was used almost exclusively The sublingual route was tried on several occasions but was soon discontinued, since absorption was not as certain and this had no special attraction over the oral method No one received the drug subcutaneously During the last weeks of the study, several patients were given 20 mg three times daily prophylactically with no untoward effects

Whenever possible, Urecholine was started the day of surgery Occasionally the patient refused to swallow the tablets this soon, in which case the tablets were dissolved in water and so given The average length of time during which the drug was administered was four postoperative days The final tabulations are presented in Table 2

Periodic clinical observations with a comparison to the preoperative state served as the most satisfactory measure of abdominal distention. Distention was divided into two groups, mild and marked In the mild cases the distention was apparent during the first or second postoperative days, usually subsiding with the onset of peri-

* Urethane of Beta Methylcholine Chloride supplied through the courtesy of Merck & Co

** Carbaminoylcholine.

Good progress in reducing the risk of pregnancy and childbirth has been made in the City of New York for both white and nonwhite mothers, with 69 per cent decline in the white rate and 64 7 per cent reduction in the nonwhite rate from 1939 to 1947 During this same period the nonwhite rate for Brooklyn was reduced 76 per cent

This is *important, for in 1939 in the entire* City of New York the number of births to Negro women was 11 per cent of the total number of births while in 1947 this figure was 8 9 per cent In Brooklyn in 1939 the number of births to Negro women was 6 per cent of the total number of births, while in 1947 it had increased to 9 per cent The maternal mortality of the Negro has an important corollary in statistics of fetal death In Brooklyn the Negro rate of stillbirth was two and one-half that of white women

Why should the Negro maternal mortality rate continue to lag? In an excellent discussion of "Maternal Welfare and the Negro," Williams has stated the problem better than anyone else [3] The answer is not simple There are many factors in the national problem, but in Brooklyn the midwife, home delivery, and opportunity for prenatal care do not enter into the problem These women are largely delivered in hospitals with opportunity for good prenatal care, supervision of trained obstetricians, and minimal obstetric interference Greater incidence of hypertension and nephrosclerosis and their tendency to toxemia are important factors Negro women do not always make the most of prenatal care, but neither do white women It may well be that there are marked differences in the constitutional patterns of the white and Negro races.

At any rate, the nonwhite maternal mortality *rates invite our serious attention*

Conclusion

Estimates of ten years ago that the maternal death rate might be reduced as much as two thirds have proved to be sound but conservative In Brooklyn, where decline in this rate has consistently paralleled the national level, further gains may be made by special attention to the nonwhite factor and continued pressure on the primary controllable factors—abortion, hemorrhage, cesarean section, anesthesia, toxemia, and finally cardiac disease, which has been well called the fourth cause of maternal death

32 Remsen Street

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A NEW, SIMPLE AND QUICK PREGNANCY TEST

A new test for pregnancy which is virtually 100 per cent accurate, even shortly after conception, and which requires only a few minutes to perform, has been developed by Dr Garwood C Richardson, of Northwestern University's Medical School, in Chicago A chemical test of urine, already used on more than 1,000 cases over a five-year period, Dr Richardson's method eliminates the use of laboratory animals, such as rabbits, frogs, rats, etc. It may be made in the doctor's laboratory with simple equipment while the patient awaits results in the outer office

The Richardson test is based on the presence of a substantial amount of estrone in the patient's urine For purposes of the test, estrone in the specimen must be separated from progesterone derivatives, the presence of which *interferes* with estrone determination Reaction of the urine to sodium hydroxide and chloroform causes the desired extraction of progesterone derivatives, with the ultimate sample to be assayed rising to the top and transferring to an inner test tube for the final step in the analysis

Estrone in one procedure, causes the sample to turn brown to indicate positive results, in another, violet-red. Estrone contains a phenolic hydroxyl chemical group and is acidic enough to react with sodium hydroxide to form sodium estronate. This salt is not soluble in chloroform and hence, if the solution containing it is extracted with chloroform, sodium estronate will remain in water *solution* This solution then is caused to couple chemically with either of two reagents, each of which produces its typical color reaction diagnostic of pregnancy In the first instance, a stable brown color indicates the presence of estrone in the urine, while *in the* second, *the development of a violet-red color* is a positive sign

tention and discomfort from inability to void The following operations were included hemorrhoidectomies, fistulectomies (anal), colostomies, pelvic and abdominal laparotomies, hip nailings, herniorrhapies, laminectomies, and curettage of protruding intervertebral disks with simultaneous spinal fusions

The results of this series were the most encouraging of any in this study Forty-four per cent of these individuals were definitely benefitted by the drug and were able to void and obtain relief The use of the drug was withheld until it was obvious that catheterization was necessary Several times patients would void just before the drug was given For this reason, the patient was urged to try voiding, while out of bed or while standing, before receiving the drug After these measures had failed, the individual was given 15 mg orally If voiding did not follow within one-half hour, 20 mg were administered and one-half hour allowed to pass If there were no results, 25 mg were given, and if the patient did not void during the following one hour, catheterization was performed It soon became apparent that the third dose had very little effect when the first two had failed Therefore, the last several weeks of the study the routine was changed to 15 mg followed in one-half hour by 25 mg with catheterization one hour later if nothing occurred

About 40 per cent of the cases that voided did so after the first dose Three patients complained of cramps and a desire to void Catheterization gave them instant relief Two of these three were men known to have mild prostatic hypertrophy

Males should be checked for prostatic enlargement before administering the drug, since any evidence of a mechanical obstruction is a definite contraindication of the use of Urecholine

Discussion

Urecholine was effective in two cases where prostigmine failed, failed in a case relieved by prostigmine and in another relieved by furmethide However, no patient had any objectionable side reactions from Urecholine Variable undesirable side-effects have been encountered from use of similar medicaments

Several patients with urinary incontinence from chronic neurogenic lesions were treated with Urecholine, and, while the results were not encouraging, one woman did regain sufficient bladder tone to allow removal of an indwelling catheter

The drug was tried in two women undergoing abdominal perineal resection for carcinoma of the rectum, since these patients often have urinary retention requiring catheterization for some time postoperatively Both had indwelling catheters inserted at the time of surgery

The first case, a sixty-nine-year-old white woman, had her catheter removed on the second postoperative day at which time the drug was started orally, 20 mg three times daily She began to void soon after in progressively larger amounts and needed no further catheterization The second patient, a forty-seven-year-old white woman, obtained no relief from a similar dose of the drug during a week's trial and required continuous catheterization until the time of her discharge

Side Reactions

During this experience with Urecholine, very few undesirable side-effects and no dangerous reactions were seen Only two patients were given atropine because of untoward symptoms from the drug, and both obtained prompt relief by the subcutaneous administration of atropine sulfate $^1/_{100}$ grain This freedom from side-effects, plus the knowledge that atropine abolishes undesirable side reactions, a fact not consistent with most other parasympathetic medicaments, has allowed the use of higher dosages near the end of this study

The untoward effects were mainly abdominal cramps or discomfort associated with a desire to void Salivation and sweating occasionally were seen with larger dosages

Being a parasympathetic stimulant, Urecholine could produce bronchoconstriction as an undesirable side-effect, a serious condition in an asthmatic Therefore, all histories were checked to avoid giving the drug to a susceptible individual, with the result that this complication was not encountered

There were no remarkable changes in blood counts or urines checked during the study

The most promising therapeutic value for Urecholine would seem to be in combating acute urinary retention. The incidence of postoperative catheterization has been definitely reduced by using this drug Oral administration provides a simple and pleasant means of administration without discomfort to the patient

It is difficult to explain why some cases, theoretically ideal, failed to respond to the drug Undoubtedly a great difference in individual susceptibility and reaction existed Perhaps part of this failure may be explained on the basis of an inadequate dose in certain less responsive individuals

While the results obtained in treating the acute postoperative urinary retentions are the most encouraging, one should not discard the possibility of therapeutic benefit from Urecholine in ileus and chronic gastrointestinal or urinary

TABLE 2.—RESULTS OF POSTOPERATIVE USE OF URECHOLINE IN 40 PATIENTS

	Number	Distention		Nausea	Emesis	Urinary Retention	Hours First Voided	Postoperative First Flatus
		Mild	Marked					
Received drug prophylactically	40	5	3	8	4	6	22	42
Control patients	40	6	4	7	6	9	25	47

stalsis by the third, fourth, or fifth postoperative day Two markedly distended cases required intestinal intubation with continuous suction for relief, at which time the drug was discontinued There was no dramatic reduction in the incidence of distention in the prophylactically treated group

Cases of widespread peritonitis were not included, but an effort was made to include cases having peritoneal trauma and those necessitating considerable handling of viscera at surgery The figures in Table 2 represent nausea and emesis which occurred during the first postoperative day or later Because of anesthesia and immediate surgical trauma, it did not seem fair to include with these figures the occasional nausea and emesis seen on the day of surgery

No attempt was made to give an individual in the prophylactic group with a distended bladder an added dose of Urecholine to stimulate micturition, since this would have upset the accuracy of comparing the results of the standardized prophylactic dose Therefore, a few patients had to be catheterized who might have been stimulated to void by giving additional drug at the time of urinary retention

There was a wide range in the time of the first voluntary voiding, but the average figures in each group were not significant The time intervals for passing the first rectal flatus were even more widespread and difficult to determine

Group II

A second group included those patients who had already developed abdominal distention This was not confined to postoperative patients, the causes of paralytic (adynamic or inhibitive) ileus being so varied, it seemed reasonable to include suitable nonsurgical cases in the study

Twenty-three patients with varying degrees of abdominal distention were treated (Table 3)

The causes of the distention were numerous and included abdominal trauma, extraperitoneal and renal irritation, systemic infections, neurogenic injuries and disease of the spinal cord, and a few postoperative distentions referred for treatment

These individuals were started on 10 mg three times daily This was continued longer than one week on several occasions Those who responded to the drug started to do so soon after the first few doses Three noticed increased peristalsis within one-half hour after the first 10 mg and passed flatus rectally Two of these patients had rather typical ileus with distended, almost silent abdomens At the end of the first half hour, they were passing rectal flatus freely with moderate relief of the abdominal distention The majority, however, did not show this spectacular improvement Those with the possibility of a mechanical factor interfering with the flow of intestinal contents were not considered It would seem that, for the most part, if an individual was to respond favorably, he did so fairly early in the treatment or else not at all

Unfortunately, no case of acute gastric dilatation was encountered during the time of this study

Several noticed increased intestinal noises and slight cramps even though they actually failed to pass flatus On one occasion the insertion of a rectal tube and the giving of an enema during the drug's action produced the desired results

In animal experiments the action of acetylcholine has been shown to be enhanced when acting upon a parasympathetically denervated organ. Therefore, it seemed reasonable to assume that Urecholine, as a choline derivative might stimulate such an organ in certain neurologic conditions Several individuals with moderate intestinal distention secondary to known central nervous system (spinal cord) pathology were treated with the drug Little benefit was obtained, and further treatment was discontinued

TABLE 3.—RESULTS OF USE OF URECHOLINE IN 23 PATIENTS WITH ABDOMINAL DISTENTION

Degree of Distention	Number	Improved	Slightly Improved	Not Improved	Made Worse
Mild	15	3	2	10	0
Marked	8	2	1	5	0

Group III

This last group includes those individuals treated for bladder distention This can be further divided into two classes acute distention with inability to void postoperatively and the chronically poorly emptying bladders, not necessarily postoperative, however

Fifty-five cases received Urecholine during the immediate postoperative period for bladder dis-

THE SALT-POOR DIET

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(From the Cardiac Clinics, Bushwick and Goldwater Memorial Hospitals)

THE salt-poor diet is one of the most frequently prescribed dietary regimens used in the treatment of disease Its use has become increasingly popular since the general recognition of the fact that it is the sodium ion rather than the amount of fluid consumed which is responsible for the retention of fluid in the body The diet is of most value in the treatment of heart disease but also, although to a lesser degree, in disorders of the liver, kidney, etc It has, however, been difficult to prepare a diet acceptable to most patients, and it is the purpose of this paper to present a diet which has been used with success

There are several regimens in popular use which are as free of salt as a diet can be unless prepared in a special metabolic kitchen, but, useful as they are, their value is limited to illnesses of short duration The Karrell diet has fallen into disregard but is useful for periods of up to a week. The Schemm diet has been of great help in a few selected patients The Kempner rice diet has also been of help in many cases It has been our experience, however, that these diets are deficient for patients to be treated over long periods of time and that, the doctor's wishes notwithstanding, few patients will adhere to them for the months or years we expect them to live

An acceptable diet should be palatable, flexible, economical, and should take into account the patient's personal and racial prejudices As far as possible, food substitutes and artificial foods, long used in the preparation of diabetic diets but now falling off in popularity, should be avoided In short, the diet should approximate as far as possible the dietary routine of the patient's family and community, and be adequate in vitamins, calories, protein, fat, and satiety value

The following diet, in use in the Bushwick Hospital for the past six years, fulfills these requirements It contains not over 2 0 Gm of sodium chloride per day and should not be used when less than this amount is necessary

SALT-POOR DIET

All Foods Must Be Cooked Without Salt

Foods Allowed

Cereals

Ralston, cream of wheat, farina, oatmeal Puffed rice, puffed wheat, shredded wheat, permitted Noodles, macaroni, spaghetti, farfel, egg barley Sauces should not be used unless approved

Breads

Unsalted Uneeda biscuits, unsalted matzos specially prepared bread

Vegetables

All fresh vegetables cooked without salt Nutra diet canned vegetables permitted Avoid gas-forming vegetables (see below) Rice permitted freely

Soups

Vegetable soup prepared without salt

Meats and fish

All fresh meat and fresh fish prepared without salt Jelly may be added Avoid smoked, pickled, etc , fish and meat No canned fish

Eggs

Permitted

Meat substitutes

Pot cheese, farmer cheese, eggs prepared without salt, unsalted nuts

Desserts

Ice cream, ices, custard, jello, junket, sponge cake, applesauce, fruit, rice pudding

Fruit

All fresh or stewed fruits permitted Fruit juices permitted

Miscellaneous

Sweet butter, jelly, honey, Karo, maple syrup No molasses

Beverages

Tea, coffee, milk, cocoa, pure tomato juice, ginger ale, coca-cola, all liquids to be calculated as part of the fluid allowance if fluids are restricted Tomato juice cocktail not permitted

Do not add salt to food in cooking or at the table

Take no laxatives unless specifically permitted

Use no bicarbonate of soda, baking soda, rhubarb and soda

The only salt substitute permitted is Neocurtasal

In the absence of salt, the following condiments may be used in limited amounts to make foods more palatable Red, black, and white pepper, vinegar oil, dried mustard marjoram, sage, thyme, tarragon, allspice, paprika parsley, celery seeds, garlic, grated raw onion, sugar, horseradish (prepared at home) lemon, lime, nutmeg, mace, ginger curry, sour salt (U S P citric acid), vanilla, and other concentrated flavoring

Do not eat

1 Salt or prepared mustard
2 Smoked meat or fish
3 Any cheese except pot cheese or farmer cheese
4 Gas-forming vegetables cabbage, cauliflower, turnips, radishes, brussels sprouts, endive
5 Beer No alcohol unless prescribed

A vitamin supplement is usually added

This is *not* a salt-free diet It is relatively salt-poor and should not be used in circumstances calling for calculated diets It is, however, of great value in chronic cases in which most extremely rigid diets are eventually rejected

atony Since there is such a variance in individual response, further study and evaluation in these conditions are warranted

Summary

1 A clinical study is presented to determine the effect of oral Urecholine in treating paralytic ileus and urinary retention The cases included are grouped under three headings (1) prophylactic postoperative treatment to reduce the incidence of paralytic ileus, (2) the treatment of already established abdominal distention, and (3) the treatment of postoperative and chronic urinary retentions

2 The results in the first two groups are not impressive Definite benefit is noted in the third postoperative group, however, the results are not compared with other similar medicaments in current use

3 Urecholine is relatively free from undesirable side-effects with oral administration Untoward side-effects are promptly relieved by atropine

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A MODIFICATION OF THE SLIDE Rh DETERMINATION*

IRA B COHEN, M D , and HANNAH PRETSHOLD, M S , New York City

(From the Blood Bank and Laboratory of Beth Israel Hospital)

THE etiologic importance of the Rh factor in transfusion reactions and erythroblastosis fetalis has made it essential that the Rh type as well as the conventional A-B-O groups be determined for every blood donor and potential recipient [1] Ideally, as complete a typing as is possible should be performed, but this in impractical for the ordinary hospital In difficult cases where thorough study is indicated, the Rh and Hr grouping and subgrouping can be done The other extreme of using an Rh-negative donor as a universal donor is not only wasteful but is dangerous, because an Hr negative patient can become sensitized by the Hr antigen which is always present in Rh-negative blood [2 3] Although the tests for A-B-O grouping, M-N grouping, and A_2 subgrouping are both rapid and accurate, an altogether satisfactory method for rapidly determining the Rh type has not been described [4]

Diamond and Abelson developed a slide sensitivity test for the detection of Rh antibodies using known Rh_0-positive cells [5] Unger *et al* adapted this test in the operation of blood banks to determine the presence or absence of the Rh_0 factor in the cells of prospective donors and recipients by using a testing serum containing Rh_0-blocking antibodies with oxalated whole blood as the cell suspension [2]

In this hospital we have used this technic to differentiate between Rh_0-positive and Rh_0-negative blood All specimens found to be Rh_0-negative by this method were checked by the tube agglutination technic [6]

In using the rapid slide test on oxalated blood we found that there were too many false Rh_0-negative bloods It was noted that when clotted blood was used for the slide Rh_0 test our false negative and questionable results were eliminated

Technic

The apparatus consists of a glass plate marked off into 16 squares (four horizontal and four vertical), each horizontal row being used for the complete typing of one specimen of blood The blood samples used are 50 per cent cell suspensions of both oxalated and clotted blood In specimens where the hematocrit is obviously low the blood is centrifuged, and plasma or serum is decanted to produce the optimal suspension

The tube of clotted blood is vigorously stirred with a paper drinking straw, and one small drop of blood is placed in each of the first two horizontal squares and two drops in the third square In the fourth square are placed two drops of oxalated blood To the square in the first column a drop of A (anti-B) serum is added, to the second square a drop of B (anti-A) serum is added, and to the squares in the third and fourth columns a drop of Rh_0 blocking serum is added The mixtures are stirred with separate wood applicators, and the glass plate is then placed on a viewing box containing an electric bulb under a ground glass plate The box is rocked back and forth for one to three minutes, and then the grouping tests are read The presence or absence of agglutination with the A and B serum and clumping with the Rh_0 blocking serum can be seen with the naked eye After agglutination and clumping appear to be complete, a drop of normal saline is added to each square to rule out the presence of rouleaux formation The A-B-O grouping is read in the usual manner The presence of clumping with the Rh_0 blocking serum in the absence of rouleaux formation indicates that the cells contain the Rh_0 factor [7]

Five hundred consecutive bloods were tested with the Rh_0 slide blocking serum using oxalated and clotted blood The similar results obtained in 409 cases (81 8 per cent) are recorded in Table 1

TABLE 1.—SIMILAR RESULTS OBTAINED WITH OXALATED AND CLOTTED BLOOD

	Slide Technic: Oxalated Blood	Slide Technic: Clotted Blood	Tube Agglutination Test	Number of Cases	Percentage
				301	60 2
1	+	+		14	2 8
2	−	−	+	44	8 8
3	−	−	−	31	6 2
4	++	++		9	1 8
5	+	++		5	1 0
6	+ weak	+	+	1	0 2
7	+ weak	+ weak	+	1	0 2
8	++	+ weak	+	3	0 6
9	++ strong	+			
Total				409	81 8

In 91 cases (18.2 per cent), which are tabulated in Table 2, there was a difference in the results obtained when using clotted and oxalated blood The most frequent discrepancy found was the appearance of a negative result with oxalated blood, whereas the clotted blood gave a positive result which was verified by the tube test with

* Supported by a grant from the Tillie Bloom Fellowship Fund.

The following explanatory notes regarding the details of the diet should be read carefully by the dietitian, physician, or nurse planning to use this or any other salt-poor diet

The labels on packaged foods of all sorts should be read from time to time, each time of purchase being not too often It has been found that items previously recommended on this diet have had salt added to them without notice

The admonition regarding sauces to be added to foods of the spaghetti family is important Formerly it was thought sufficient to forbid merely "spicy" sauces, the delicious sauces so often used with spaghetti It has since become obvious that cheese sauces, often substituted, contain just as much sodium chloride If sauce is desired, the patient should consult the dietitian

Unsalted Uneeda biscuits are permitted Other biscuits of similar type may be approved, but only after their composition has been definitely determined Matzos, the traditional Jewish unleavened bread, is the most popular bread substitute Its sale, formerly confined to the Easter holiday season, has become year long because of its crisp attractiveness Labels should be consulted, however, since salt is often added to the perennial variety Bread should be forbidden unless specially prepared Some patients and hospitals will prefer to bake their own bread In some communities, commercial bakeries prepare salt-free bread and cake when there is sufficient demand

Almost all vegetables are permitted and can be made palatable, even to gourmets, by judicious use of spices, lemon juice, etc Although "gas-forming" vegetables are forbidden, they may be permitted in isolated instances in which the patient demands them and finds that they do not upset his digestion

Vegetable soups are permitted In accord with the modern policy of allowing fluids more freely when the diet is low in salt, soup, formerly interdicted, is now allowed In our experience, few soups, except those prepared with mixed vegetables, are acceptable unless salt is used If the patient will take other kinds of soups, prepared without salt, he should be permitted to do so Neocurtasal will make soups acceptable

Most meats and fish are permitted, and few patients find them objectionable when prepared without salt Jellies will often take the curse off these foods, the traditional use of mint jelly with roast lamb is a good example of the acceptability of this combination Meats may be improved by the judicious use of lemon juice, onion, garlic, and the other spices mentioned

The cheeses require a word of comment Each racial group has an unsalted cheese which can be recommended safely Pot cheese (and its pressed variety, farmer cheese) can be bought in all eastern metropolitan centers, especially in Jewish districts Pot cheese is a variety of cottage cheese but, unlike the latter, has no added salt

Most desserts can be allowed Cakes, if prepared, like bread, without salt or baking soda, can be included in the diet Molasses should not be used One should insist on sweet butter

Most beverages are permitted It should be noted that restriction of fluids is not an integral feature of the diet If the clinician should wish, a note regarding such restriction may be inserted at this point Tomato juice, especially if lemon juice is added, is an excellent drink Here again, labels should be consulted since few brands do not contain sodium chloride.

The admonition regarding salt and salt substitutes is of the utmost importance Most commercial salt substitutes are prepared with sodium salt and are to be forbidden If the patient insists on adding something with a salty flavor to food, a mixture consisting of equal parts of potassium chloride and finely divided starch may be used in a salt shaker The mixture should be added to food at the table, it should not be used in the preparation of food A commercial powder, made of toasted yeast (Baken-Yeast) is also found agreeable by many patients. The only permissible salt substitute is Neocurtasal, which does not contain the sodium ion.

Bicarbonate of soda, known as baking soda to most laymen, should be forbidden The alert physician should also advise against the use of rhubarb and soda or other mixtures containing bicarbonate of soda Many of the "antacids" and saline laxatives contain huge amounts of salts with sodium radicals Nearly all the naturally carbonated waters, and some of those artificially carbonated, contain considerable quantities of sodium salts, even sodium chloride.

A new feature of this diet and one considerably enhancing its usefulness is the inclusion of the condiment list When the condiments do not have added salt, they are entirely satisfactory from a medical point of view and add immeasurably to the palatability of the patient's meals At first, there was some misgiving about the possibility of their increasing the patient's thirst, fortunately unwarranted, and we have been allowing patients more fluids than formerly

Beer should be denied the patient, but other alcoholic drinks may be permitted, even prescribed, under certain circumstances Of course, there should be a warning against the use of sparkling waters in highballs and mixed drinks

Conclusions

1 A new, workable, salt-poor diet is prescribed

2 Palatability is stressed A feature is the recommendation of condiments to add flavor

PULMONARY COCCIDIOIDOMYCOSIS

FREDERIC W HOLCOMB, M D , F A C P , Kingston, New York

(From the Kingston and Ulster County Tuberculosis Hospitals)

PRIMARY pulmonary coccidioidomycosis, which has been termed "San Joaquin Valley Fever" or "Desert Fever," is caused by the fungus Coccidioides immitis and is carried into the lungs by inhalation of dust contaminated by the spores of these saprophytic organisms Prior to 1941 it was rarely encountered east of the Mississippi River, although it has been endemic in the desert regions of the Southwest for many years Up to 1931 only two cases had been reported in the eastern United States In 1892 coccidioidal granuloma was first described by Wernicke, and since that time subsequent investigations show that it is characterized by extrapulmonary or cutaneous lesions resembling erythema nodosum and pulmonary lesions which may be bronchopneumonic on x-ray appearance and which may later undergo necrosis, resulting in cavity formation Later, productive or fibrotic tissue proliferation may ensue The disseminated type of coccidioidomycosis is probably caused by hematogenous or lymphatic dissemination of the initial or pulmonary infections to other organs of the body

The training of large numbers of Army personnel for desert warfare in the southwestern United States where the climate and terrain of certain parts of California, Arizona, and New Mexico were adapted to this training created a problem in the dissemination of coccidioidomycosis Up to this time a comprehensive survey has not been made, but it has been estimated that about 6,000 cases occurred in the military personnel This group comprised men from all parts of the United States who have since been returned to their homes and may present problems in diagnosis and care in the future

This discussion is concerned with three cases, discovered in Ulster County in 1944, which presented pulmonary lesions of coccidioidomycosis My purpose in presenting these cases is to call attention to the close resemblance to cases of pulmonary tuberculosis in the x-ray findings, the clinical course, and the complications The types of these lesions vary and conform to the common typical productive or fibrotic lesion with cavity formation, the solitary cavity noted in the parenchyma of the midlung field without any considerable surrounding zone of inflammation, or the extensive bronchopneumonic infiltration with disseminated miliary nodules which may closely simulate the x-ray finding of acute miliary or hematogenous tuberculosis

The diagnosis of pulmonary coccidioidomycosis may be made by the discovery of the Coccidioides immitis in the sputum or smear This procedure, however, is very often negative, and in our cases the fungus could not be found The coccidioidin intradermal test, when positive, indicates infection, although the disease may be present in cases whose reaction is negative One-tenth cubic centimeter coccidioidin, dilution of 1 1,000 and 1 100, is injected intradermally, and reaction of 5 mm or more, which is best read at the end of forty-eight hours, can be considered positive Serial x-ray films are very essential in the diagnosis and subsequent observation of these cases

The usual symptoms are thoracic pain, irritative or slightly productive cough, fever which may be variable in both its severity and its occurrence, and hemoptysis together with the usual manifestations of a systemic infection

Treatment follows rather closely the usual procedures used in the care of pulmonary tuberculosis and its complications Bed rest with high caloric diet and the use of analgesics for the relief of pain are indicated Potassium iodide, 40 to 60 Gm daily, might be tried, although the therapeutic value is conjectural Thoracentesis may be necessary for relief of extensive pleural effusions with its accompanying dyspnea Artificial pneumothorax may be indicated for control of repeated or severe pulmonary hemorrhages

Case Reports

Case 1—This patient was x-rayed following a slight hemoptysis, and an apical productive infiltration was found in the left supraclavicular region. A radiolucent configuration was present suggesting a small cavity He had served in the Army and had had training in the southwestern desert country for several weeks He complained of small recurrent pulmonary hemorrhages and was subsequently hospitalized several times over a period of one year He received conservative treatment with bed rest His sputum and gastric contents on all examinations were negative for tuberculous bacilli, but intradermal tests with coccidioidin were positive on dilution 1 100 After one year a very severe pulmonary hemorrhage occurred, and it was considered necessary to induce left pneumothorax for about six months The lung was then allowed to re-expand He has had no episodes of hemoptysis for several months

Presented at a meeting of the Fourth District Branch of the Medical Society of the State of New York, September 25 1948

TABLE 2.—DIFFERENT RESULTS OBTAINED WITH OXALATED AND CLOTTED BLOOD

	Slide Technic: Oxalated Blood	Slide Technic: Clotted Blood	Tube Agglutination Test	Number of Cases	Percentage
1	–	+	+	45	3 0
2	–	+ weak	+	5	1 0
3	–	++	++	27	5 4
4	+ weak	++ strong	++	11	2 2
5	+ weak	–	–	2	0 4
6	Heavy rouleaux even with saline	–	–	1	0 2
Total				91	18 2

Rh_0 agglutinating serum This occurred in 77 cases (15 4 per cent, 1–3 in Table 2) In 11 cases (2 2 per cent, 4 in Table 2) the slide test with oxalated blood was weakly positive, while the slide test with clotted blood and the tube test were strongly positive In two cases the oxalated blood was weakly positive, while the clotted blood gave a negative result confirmed by the tube test In one case there was heavy rouleaux formation with oxalated blood which did not disappear with the addition of saline, the slide test with clotted blood and the tube determination were negative In 14 cases (2 8 per cent) both slide tests with oxalated and clotted bloods were negative whereas the tube determinations were positive (2 in Table 1) In general, where both clotted and oxalated bloods gave positive slide tests, the test with the clotted blood was easier to read

Discussion

Diamond and Abelson advocated the use of oxalated blood in the rapid slide technic, in order to remove fibrin, this apparently being the main reason for their choice [5] In our experience, the use of blood which has been allowed to clot completely, will eliminate any fibrin film from the slide Clotted blood has the advantage over oxalated blood in that it can be kept for two weeks at refrigerator temperature, whereas oxalated blood is good for only five days under similar conditions Also, clotted blood, if shipped by mail to a laboratory, is likely to arrive in better condition than oxalated blood [8] Another disadvantage in the use of oxalated blood is that the tubes usually contain enough potassium oxalate for 5 to 12 cc of blood, whereas in some cases where venipuncture is difficult 1 or 2 cc of blood is put into the oxalate tube We find that in these cases the slide Rh_0 determination with oxalated blood is very likely to give a false negative result

Conclusions

1 A rapid slide technic using Rh_0-blocking serum and clotted blood has been described

2 The use of clotted blood for this test has been found to be more satisfactory than oxalated blood In 500 cases there were 91 instances (18.2 per cent) in which there was a discrepancy between the results obtained with oxalated and clotted blood In each case the slide test with clotted blood was confirmed by the tube agglutination technic The most common inconsistency found was a false negative result with the oxalated blood

3 In most cases the slide test with clotted blood was easier to read than the test with oxalated blood

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POLITICAL APPROACH

Dr R B Robins, Democratic National Committeeman for Arkansas, has sent the following telegram addressed to Senator McGrath

As Democratic National Committeeman for the state of Arkansas, and as a member of the House of Delegates of the American Medical Association, I wish to register vigorous protest against your misuse of the facilities of the Democratic National Committee to attack the medical profession

According to Press Association reports, your scurrilous statement of Monday, March 21, attacking state medical societies and the American Medical Association as "a medical dictatorship," was distributed by the Democratic National Committee and you were quoted as the party's National Chairman

The medical profession is threatened with a government dictatorship, not a medical dictatorship, as you well know, and your action affords eloquent evidence of why we don't want political medicine in this country

There are thousands of doctors like myself, who are Democrats in good standing, and who will resent your use of Democratic Party facilities to undermine public confidence in the medical profession. If you insist on playing politics with the health needs of the American people, you will bring discredit on both yourself and our party —*March 26, 1949*

PULMONARY COCCIDIOIDOMYCOSIS

FREDERIC W HOLCOMB, M D , F A C P , Kingston, New York

(From the Kingston and Ulster County Tuberculosis Hospitals)

PRIMARY pulmonary coccidioidomycosis, which has been termed "San Joaquin Valley Fever" or "Desert Fever," is caused by the fungus Coccidioides immitis and is carried into the lungs by inhalation of dust contaminated by the spores of these saprophytic organisms Prior to 1941 it was rarely encountered east of the Mississippi River, although it has been endemic in the desert regions of the Southwest for many years Up to 1931 only two cases had been reported in the eastern United States In 1892 coccidioidal granuloma was first described by Wernicke, and since that time subsequent investigations show that it is characterized by extrapulmonary or cutaneous lesions resembling erythema nodosum and pulmonary lesions which may be bronchopneumonic on x-ray appearance and which may later undergo necrosis, resulting in cavity formation. Later, productive or fibrotic tissue proliferation may ensue The disseminated type of coccidioidomycosis is probably caused by hematogenous or lymphatic dissemination of the initial or pulmonary infections to other organs of the body

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Presented at a meeting of the Fourth District Branch of the Medical Society of the State of New York, September 25 1948

Case 2—During a routine pre-employment examination of a robust individual weighing over 190 pounds and apparently in excellent health, an annular configuration was noted on fluoroscopic examination in the left midlung field An x-ray film revealed what appeared to be a thin-walled cavity about 3 cm. in diameter This patient had complained of intermittent cough with occasional blood-tinged sputum. He was later accepted for employment as a lineman with a public utility company and carried on fairly heavy work for several months About a year later he reported to the hospital complaining of marked dyspnea on exertion. Fluoroscopic examination revealed a rather dense opacity overlying the lower three fourths of the left lung field About 1,600 cc of clear, straw-colored pleural effusion was removed, and intradermal tests with coccidioidin were faintly positive on the 1 1,000 dilution and definitely positive on the 1 100 dilution. Seven days later he returned to work This episode occurred about two years ago, and he has continued his work ever since

Case 3—This patient was admitted to the hospital on June 28, 1946 He gave a history of an acute pulmonary infection which began about June 25 His temperature on admission was 104 F with 23,000 white blood cells and 70 per cent polymorphonuclear leukocytes. There was considerable cyanosis, and his respirations were 45 per minute and rather shallow His cough was nonproductive in type, but x-ray films on admission showed an extensive bilateral involvement of both lung fields with miliary nodules which suggested a miliary tuberculosis The film of July 3 showed a more sharply defined miliary nodulation with two small circumscribed shadows in the first interspace anteriorly which suggested beginning cavity formation Streptomycin was not readily available at that time, and penicillin therapy was instituted. The patient became rapidly worse, and his cyanosis was more pronounced A spinal tap, done on admission, did not reveal any significant findings regarding increased pressure The protein was negative, sugar 86 mg per cent, and no white blood cells were found The smear showed no cells or organisms, and the cultures showed no growth in seventy-two hours Guinea pig inoculation was negative for tuberculous lesions at the end of ten weeks

To our surprise this patient began to show improvement on the twelfth day following admission Up to this time he had been somnolent and delirious much of the time His condition continued to improve, and the x-ray films showed progressive clearing after the third week. His last film of April 1, 1947, showed only a few productive strands in the upper left lung field, while the right lung field was essentially clear On September 27 coccidioidin was injected intradermally and was strongly positive with reddening and induration on dilution of 1 100 The dilution of 1 1,000 was negative This case was diagnosed as a pulmonary coccidioidomycosis. One interesting fact in this patient's history is that he served three weeks in the Arizona desert in May, 1943, and coccidioidomycosis was not manifest for over three years

These cases varied in their clinical course and x-ray findings, and each one developed complications commonly found in pulmonary tuberculosis

These cases have been examined by the U S Army Medical Department, and the diagnosis of coccidioidomycosis has been confirmed The cases are classified as "service-connected"

Summary

1 In members of the military personnel who have seen service in the desert country of the Southwest, in individuals who have visited these areas in whom x-ray studies reveal pulmonary lesions resembling tuberculosis, and when the sputum and gastric contents are negative for tubercle bacilli on smear concentration and culture, intradermal tests with coccidioidin should be made

2 Primary pulmonary coccidioidomycosis often closely simulates pulmonary tuberculosis in its clinical course, its complications, and in its serial x-ray films

3 Prompt differentiation should be made in these cases in order to avoid prolonged hospitalizations in tuberculosis sanitaria where there may be danger of adding a superimposed pulmonary tuberculosis to their existing coccidioidal disease

188 FAIR STREET

HOOVER IN WARNING ON MORE SPENDING

Former President Herbert Hoover declared recently that if we are to survive as a nation, taxes and our expenditure budget must not be increased until the cold war is won Today our Government is spending dangerously $23,000,000,000 of our expenditures of the $45,000,000,000 of the budget for the cold war He added that billions of additional expenditures were being urged upon Congress by groups and sections in the country for special projects which may be worthy but highly unadvisable at the present time

Concerning Federal medical expenses, Hoover said the Government is needlessly enlarging its hospital system at a cost up to 50 per cent more than private hospitals. He labeled medical expenditures as one of the worst overlaps, wastes and inefficiencies in the whole Federal administration

Hoover charged that the Government has 70,000 empty beds in its hospitals but is planning 50,000 more A commission survey, he said, led President Truman to suspend $400,000,000 worth of new hospital construction already authorized

He urged a United Medical Administration to coordinate five different Federal hospital services—Army, Navy, Veterans, Public Health, and aid to private hospitals—*New York Sun, April 23, 1949*

THE INCIDENCE OF MULTIPLE PRIMARY MALIGNANT TUMORS AND A REPORT OF A CASE WITH THREE PRIMARY CARCINOMATA

DAVID M SPAIN, M D , New York City

(From the Pathology Laboratories, Bellevue Hospital)

ANY report on the subject of multiple primary malignant tumors might well start with the following excerpt from the exhaustive report on this subject by Warren and Gates in 1932 "Only that person whose experience with malignant disease is limited is now thrilled by encountering a case However, the frequency or the infrequency of occurrence of these multiple tumors has great significancet for we should be able to obtain from the state of this condition light on the resistance or susceptibility to cancer as well as some clue as to the role of heredity "[1]

One of the facts used to support the mutation theory of the development of cancer is that the incidence of multiple malignant tumors is stated to be higher than would be expected if only chance were involved Warren and Gates found 40 cases of multiple malignant tumors in 1,078 postmortem examinations on patients with malignant tumors This was a 3 7 per cent incidence, as compared with the combined reports of all American observers that gave an incidence of 3 9 per cent Since 1932, the mutation theory has gained in popularity in some quarters, and it has become of interest to note whether the incidence reported in 1932 is essentially the same after a fifteen-year interval With this in mind, 5,000 consecutive postmortem examinations performed between 1941 and 1948 at Bellevue Hospital were analyzed These data must be viewed with the knowledge that skin tumors are usually not seen at postmortem examination at Bellevue Hospital and that many of the cases with breast, uterine, cervical, and gastrointestinal carcinomata that have received surgical treatment are very often not autopsied because there is little incentive on the part of the interns for securing consent in these cases These figures are, therefore, minimal figures, and probably a slightly higher tumor incidence would be correct There were 690 cases with malignant tumors Of these, 22 (3 2 per cent) had multiple primary malignant tumors (Table 1) It is interesting to note that in 115,813 postmortems collected in a review of the literature by Warren there were 15,988 with one or more malignant tumors (13.8 per cent) At Bellevue Hospital the postmortem incidence of malignant tumors in a series studied fifteen years later was also 13 8 per cent (Table 2)

As stated previously, multiple primary malignant tumors that arise in the same individual are not rare However, the majority of cases are examples of multiple tumors of the same system or organ, particularly of the skin or alimentary tract Moreover, in many of these cases the tumors appear at different periods rather than all occurring simultaneously In Warren's report that included an extensive review of the literature, there were only three cases of triple primary carcinomata that originated in three different organs These were as follows (1) bronchus, prostate, and gallbladder, (2) stomach, tongue, and adrenal, and (3) breast, stomach, and ovaries The following is a brief case report in which

TABLE 1 —INCIDENCE OF MULTIPLE MALIGNANT TUMORS

Number of postmortem examinations	5 000
Number of malignant tumors	69
Number with two primary malignant tumors	20
Number with three primary malignant tumors	2

TABLE 2 —TABULATION OF CASES WITH MULTIPLE MALIGNANT TUMORS

Age	Sex	Types of Tumors
67	M	Adenocarcinoma of stomach transitional cell carcinoma of urinary bladder
77	M	Squamous cell carcinoma of esophagus primary liver cell carcinoma adenocarcinoma of stomach
49	M	Squamous cell carcinoma bronchus adenocarcinoma kidney
73	F	Adenocarcinoma stomach adenocarcinoma colon
63	M	Primary liver cell carcinoma leiomyosarcoma of stomach
74	M	Adenocarcinoma rectum carcinoma prostate
48	M	Squamous cell carcinoma bronchus carcinoma kidney
55	M	Squamous cell carcinoma, bronchus adenocarcinoma stomach
42	M	Basal cell carcinoma nose undifferentiated carcinoma bronchus
73	M	Adenocarcinoma rectum carcinoma prostate
57	M	Squamous cell carcinoma bronchus carcinoma prostate
69	M	Carcinoma prostate adenocarcinoma stomach
69	M	Squamous cell carcinoma, bronchus adenocarcinoma pancreas carcinoma, prostate
54	M	Adenocarcinoma stomach carcinoma, prostate
61	M	Adenocarcinoma colon carcinoma, kidney
55	M	Multiple adenocarcinoma, colon
74	M	Squamous cell carcinoma esophagus carcinoma prostate
69	F	Carcinoma, kidney, adenocarcinoma stomach
71	M	Adenocarcinoma colon carcinoma prostate
75	M	Adenocarcinoma colon, adenocarcinoma stomach
79	M	Primary liver cell carcinoma carcinoma, prostate
63	M	Squamous cell carcinoma, lung sarcoma leg



FIG 1 Photomicrograph (hematoxylin-eosin) showing nests of atypical squamous cell in bronchus

primary carcinomata were present in the pancreas, prostate, and bronchus

Case Report

The patient, a sixty-year-old white man, was under treatment in the Outpatient Department Clinic of the First Medical Division of Bellevue Hospital The diagnosis at that time was hypertensive heart disease and varicose veins of the lower extremities There were no other complaints On August 23 1945, the patient was admitted to Bellevue Hospital in a stuporous condition after his wife had found him on the floor of his bedroom in a state of collapse No further history was obtained Physical examination disclosed a stuporous male with a left-sided hemiplegia Aside from a blood pressure of 170/110, there were no other significant findings He expired twenty-four hours later The clinical diagnoses were cerebrovascular accident and hypertensive cardiovascular disease

Necropsy Report.—Postmortem examination showed a cerebral hemorrhage (right frontal lobe), arteriolar nephrosclerosis, and a hypertrophy of the heart (The remainder of the description of the postmortem findings will be limited to the three malignant tumors)

The left upper lobe bronchus was partially stenosed by a mass of firm white tissue that was 3 cm. in diameter The mass infiltrated beyond the bronchus into the lung parenchyma. The adjacent lymph nodes were moderately enlarged and contained similar tissue Histologic section of these areas showed numerous nests of atypical squamous cells in which there was considerable keratin formation The bronchial mucosa was replaced by these cells, and the entire thickness of the bronchial wall was infiltrated The lymph nodes contained similar cells *Diagnosis* squamous cell carcinoma of the right upper lobe bronchus (Fig 1)

The pancreas was not increased in size In the tail, the normal pink lobulated architecture was replaced by a 2 5 cm. mass of firm white tissue that had infiltrated into the surrounding tissue Histologic section taken from this mass showed many acini lined with atypical columnar cells in which the nuclei had lost their polarity and were hyperchromatic and irregular in shape Many of these atypical cells had invaded into the surrounding pancreatic tissue *Diagnosis* adenocarcinoma of the tail of the pancreas (Fig 2)

The prostate was normal in size. Except for a few small nodules, it appeared relatively normal. Histologic sections of the prostate showed that several of these nodules consisted of atypical epithelial cells that had formed solid nests of cells filling the acini.



FIG 2 Photomicrograph (hematoxylin-eosin) showing adenocarcinoma of pancreas



FIG 3 Photomicrograph (hematoxylin-eosin) showing carcinoma of prostate with carcinoma cells in perineural lymphatics

There were solid cords and strands of these cells in the adjacent parenchyma The perineural and perivascular lymphatic vessels were filled with these cells *Diagnosis* carcinoma of prostate (Fig 3)

Discussion

The criteria originally established for the diagnosis of multiple distinct primary malignant tumors were that the various tumors must have distinct gross points of origin, that they must be histologically different, and that each tumor must have its own metastases

In recent years the three criteria have been modified to the extent that metastases as one of the criteria has been replaced by the requirement that the signs of malignancy must be unmistakable, as, for instance, infiltration into the surrounding tissue In this case all of these criteria were fulfilled The bronchial tumor was squamous cell in type, the pancreatic tumor was glandular, and the prostatic tumor consisted of small undifferentiated cells The bronchial tumor had infiltrated beyond the cartilage and had metastasized to the regional lymph nodes The pancreatic tumor had invaded the surrounding parenchyma and was unencapsulated The prostatic tumor had spread into the perineural and perivascular lymphatic vessels All three had distinct gross points of origin It is a point of additional interest that all three were present simultaneously and had not produced, as far as was known, any subjective clinical manifestations

Summary and Conclusions

1 The incidence of multiple malignant tumors in 690 postmortem examinations on cases with malignant tumors was 3 2 per cent This is in agreement with the incidence of 3 7 per cent recorded by Warren in 1932

2 The incidence of single malignant tumors in 5,000 consecutive postmortem examinations was 13 8 per cent This is the identical incidence obtained fifteen years ago in an exhaustive analysis of 115,813 autopsies

3 The high incidence of multiple malignant tumors would tend to support the mutation theory of the origin of cancer

4 An additional case of three distinct primary carcinomata arising in three distinct organs (bronchus, pancreas, and prostate) is presented

Reference

1 Warren, S and Gates O Cancer 16 1358 (Nov) 1932

LUMBAR SYMPATHECTOMY PERFORMED ON THE KING

The King has undergone the operation of lumbar sympathectomy by Dr J R. Learmonth, professor of surgery at the University of Edinburgh, assisted by Dr J Paterson Ross professor of surgery at the University of London. The operation was without incident The King has for some months been under the medical treatment of a corps of specialists for difficulties in the circulation in the legs due to arterial troubles. In the left leg the flow of blood has been restored in the main arteries to a satisfactory degree But in the right leg the main artery is still obstructed and the circulation is still less efficient than in the left through a collateral circulation. With a view to improving the circulation in the right foot, right lumbar sympathectomy has been performed — *J.A.M.A., April 23, 1949*

Case Reports

PRIMARY FIBROSARCOMA OF THE HEART WITH METASTASES

HARRY COHEN, M D , Bronx, New York

(From the Lebanon Hospital)

ALTHOUGH primary tumor of the heart is rare in the experience of any one pathologic laboratory, the total number of cases recorded in the literature forms an impressive collection. However, as noted by Wall and Vichery, primary tumor of the heart with distant metastases is particularly rare [1] Wartman and Hellerstein, in their report of heart disease in *2,000 consecutive autopsies, state that* they found 16 cases of neoplasm of which one was a primary leiomyosarcoma of the right atrium with direct extension into the superior vena cava, left subclavian vein, and myocardium of the right ventricle and left atrium.[2] Metastases were also found in the lungs and adrenals

It is of great interest that the diagnosis is rarely made antemortem, *although there are three established* cases of primary intracardiac tumor that were recognized prior to death These cases were reported by Popp, Barnes *et al*, and Shelburne [3-5] In the opinion of the observers cited, there are certain suggestive or diagnostic features of a tumor of the heart

1 Unexplained and intractable cardiac failure which is *often the first and last episode of decompensation*

2 Unexplained and sometimes inconstant changes in cardiac rhythm, sounds, and size, as judged by physical, roentgen, and electrocardiographic examinations

3 Development of a hemorrhagic pericardial effusion (Tumor cells in fluid confirm the diagnosis)

4. Unexplained signs of obstruction of cardiac flow or of the blood flow of the major thoracic vessels.

5 A specimen removed in arterial embolectomy which is shown on microscopic examination to be derived from a tumor of the heart

Case Report

Patient C G , an obese white woman, age thirty, gravida 0, Para 0, was first seen April 1, 1947, complaining of cough, sore throat, and elevated temperature Her past history and family history were entirely noncontributory Patient responded to antipyretic medication and bed rest The temperature again became elevated within a few days, and the patient complained of chills and fever, cough, pain in the left chest, and bloody sputum Physical examination revealed dullness, moist rales, and bronchovesicular breathing in the right lower lobe posteriorly The patient refused hospitalization, and treatment was instituted at home with daily intramuscular injections of 300,000 units penicillin in oil and wax and oral sulfadiazine with sodium bicarbonate After six days, the chest signs resolved, but the temperature did not return completely to normal. The patient was convinced that she should be hospitalized for a more complete study and necessary therapy

The patient was not seen again for several days until she was hospitalized on May 2, 1947 At this time the patient was cyanotic but not dyspneic Physical examination of the chest revealed evidence of bilateral pleural effusion posteriorly, the heart sounds were muffled and distant but regular in rhythm. The blood pressure was 105/80 Although a pericardial effusion was suspected clinically, the roentgenologist did not corroborate the clinical impression. There was no evidence of ascites or peripheral edema. The temperature was 102 4 F , pulse 120, and respirations 20

The clinical impression was bilateral pleural effusion and pericarditis with effusion possibly on a rheumatic basis with *panserositis*

Laboratory data were as follows hemoglobin 81 per cent, red blood cells 4,200,000, white blood cells 8,600, polymorphonuclears 68, lymphocytes 27, eosinophils 2, and monocytes 3 Urinalysis was acid with a specific gravity of 1 023, clear yellow, *1 plus albumin, sugar negative, and microscopic* negative Blood culture was negative after four days Sputum was negative for tubercle bacilli Also negative were the heterophil reaction and the Mantoux test Sedimentation rate was 8 mm. per hour (Westergren)

Chest x-rays showed "bilateral pleural effusions, cardiac contours not distinguished from adjacent shadows Trachea in the midline" Electrocardiogram report was "QRS complexes of very low voltage in all leads and slurred T moderately low voltage, T_2 and T_4 isoelectric and T_3 inverted Impression myocardial damage and poor function with the marked changes probably due to pericardial effusion with poor circulation."

The patient's general condition remained unimproved, the cyanosis was present almost constantly The blood pressure ranged from 110/70 to 84/70, and the respirations from 15 to 30 per minute, the temperature fluctuating between 99 and 103 F The patient could not tolerate

salicylates, and, with no response to penicillin, therapy was changed to streptomycin In addition, intramuscular liver was given twice a week and B-complex daily

On May 8, 1947, chest x-ray was reported as showing "little change at bases of lungs The heart is enlarged to the right and left Impression pleural effusions and cardiac enlargement" On May 14, an attempt was made to do bilateral thoracocentesis, but only several cubic centimeters of what appeared to be blood was obtained The following day further x-ray of the chest was reported as "showing blunting of both costophrenic bases, less than previously reported The heart is enlarged to the left and right Impression resolving bilateral pleural effusion. Cardiac enlargement"

The patient had repeated blood counts and urinanalyses with no important changes until May 15, when the blood count revealed a moderate anemia of hemoglobin 62 per cent, red blood cells 3,560,000, white blood cells 12,800 with a differential of polymorphonuclears 75, lymphocytes 21, eosinophils 1, and monocytes 3 In view of the anemia, it was decided to give 500 cc of whole blood transfusion. The patient was typed and found to be group A, Rh positive On May 17, a citrated transfusion was started very slowly, and, after 150 cc were given, the patient suddenly had a severe reaction with a chill, marked cyanosis, and dyspnea. The transfusion was immediately discontinued, and the patient was given adrenalin and oxygen. The patient was again typed and found to be group A, Rh positive and compatible with the blood given although it was O blood. The same day the patient was transferred to Lebanon Hospital where she was immediately placed on the critical list She now showed marked cyanosis especially of the head and neck, severe orthopnea, and markedly distended neck veins on lying flat The blood pressure was 90/70, and the heart sounds were found to be distant and muffled but regular Pulse was very shallow and of poor quality

Soon after admission, an x-ray of the chest was reported as showing "marked enlargement of the cardiac shadow to the left and right in a symmetric manner The cardiodiaphragmatic angle is obtuse and suggestive of a large pericardial effusion. Whether the heart is enlarged cannot be determined."

That night, because of the critical tamponading of the heart, a pericardial paracentesis was performed through the anterior route, and 200 cc of bloody fluid were removed which did not clot on standing There was immediate improvement in the orthopnea and cyanosis, the neck veins markedly diminished in their distention, and the blood pressure rose to 120/80 However, the patient's general condition was still critical, and she was given oxygen constantly, and salicylates which were not tolerated. Because of the bloody pericardial effusion, a diagnosis of malignancy was now entertained

Another chest x-ray on May 23 was reported as revealing "a moderate left pleural effusion with marked decrease in the amount of fluid in the pericardial sac" Accordingly, on May 24, a left thoracentesis was performed and 1,050 cc of bloody fluid were removed which did not clot on standing

The fluid from the pericardial sac and pleural cavity failed to reveal any organisms or malignant cells

The patient's course was continuously downhill, and she expired on May 27, 1947

Postmortem Examination.—The organs were removed through a thoracoabdominal incision. The pleural and pericardial cavities were filled with a bloody fluid The peritoneal cavity contained about 500 cc of serosanguinous fluid The heart weighed 375 Gm The right auricle was the seat of a large, hemorrhagic, nodular, hard neoplasm the size of a baseball, which invaded the entire auricle to the subendocardium and extended posteriorly to the esophagus The mass extended in grapelike, hemorrhagic clusters around the epicardium and had several implantations on the pericardium. All the chambers of the heart were within normal limits, except the right auricle, which was narrowed by the tumor invasion The remainder of the heart was essentially negative

On frozen section, the tumor revealed fibrosarcoma Microscopic sections confirmed this diagnosis, revealing spindle-shaped cells varying in size, shape, and staining reaction Mitoses were evident Areas of necrosis and hemorrhage were seen Tumor giant cells were present

The spleen was enlarged, congested, and soft and showed a metastatic growth measuring about 25 mm. in its greatest diameter This was confirmed by microscopic study

The lungs weighed 1,200 Gm The bronchial tree appeared normal, and the lungs showed several infarcts, each measuring a few centimeters in dimension

On microscopic section the right lung revealed masses of infiltrating tumor and atelectasis

The other organs were essentially negative

Anatomic diagnoses were (1) fibrosarcoma, right auricle, with metastases to epicardium and pericardium and to spleen and right lung and adjacent lymph nodes, (2) cardiac tamponade, massive pericardial and bilateral pleural effusion, (3) ascites, (4) chronic passive congestion of liver, (5) chronic passive congestion of spleen with splenomegaly, and (6) follicular cyst of right ovary

Summary and Conclusion

A case of primary fibrosarcoma of the heart with metastases to the adjacent lymph glands, right lung, and spleen is presented because of its rarity

Although primary tumor of the heart is rare, it must be considered in the differential diagnosis of hemorrhagic pericardial effusion The failure to find malignant cells on careful examination of the fluid does not rule out this uncommon condition

I am very grateful to Dr Herman L Frosch for his kind criticisms and aid with this case

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CEREBRAL HEMORRHAGE (NONTRAUMATIC) IN ADOLESCENCE

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CEREBRAL hemorrhage (nontraumatic) is usually looked upon as an expression of severe vascular changes in advanced age However, even the early years of life may be abruptly terminated by intracranial hemorrhage, and the literature reveals that such situations are not too uncommon [1-1] Bagley writes, "I wish to emphasize that spontaneous cerebral hemorrhage is a common accident and may occur at any age "[12]

We are reporting on two cases of nontraumatic cerebral hemorrhage in adolescence.

Case Reports

Case 1 —M P , a white girl, age thirteen, was admitted to Vassar Brothers Hospital on July 2, 1947 She had been perfectly well until this time At 2 45 P M , while in a bank with her mother, she suddenly developed severe frontal headache She was taken home, the headache increased in severity, and she became delirious She vomited at about 4 00 P M , became comatose, and collapsed There was no history of any recent or remote head trauma, falls or accidents, or any recent illnesses Removal of tonsils and adenoids had been done two weeks before with no postoperative hemorrhage or complications Two years previously she had a lobar pneumonia which was treated successfully at home with penicillin There were no severe childhood illnesses The mother states that labor and delivery had been normal, and the neonatal period had been uneventful She had one brother, age eighteen, alive and well

Patient was comatose, making aimless motions with the right upper extremity and attempting to scratch the right nostril The right pupil was dilated and did not react to light The left pupil was normal in size and reacted to light The neck was not stiff, and there was no Babinski or Brudzinski sign The abdominal reflexes were absent The pulse was not obtainable, and the skin was cold and clammy The heart sounds were of poor quality, and there was a bradycardia, rate 44, regular The blood pressure was 100/60 There was no odor to the breath She had been brought to the hospital by ambulance.

A spinal tap revealed a pressure of over 800 mm of water The spinal fluid was pink, and on examination revealed 1 white blood cell, many red blood cells, and one plus globulin The eye grounds revealed some haziness of the disk margins A blood sugar test was reported as 219 mg per cent, and the urine revealed a 3 per cent sugar, 2 plus acetone, faint trace of albumin, and a specific gravity of 1 036 The temperature was 101 F by 8 00 P M , and she sank deeper and deeper into coma and expired at 11 00 P M., approximately eight hours after the onset of her headache The culture of the spinal fluid was sterile

Autopsy —Because of the difficulty in getting permission for the autopsy, only the head was examined, since the chief pathology was presumably there.

General External Appearance The body was that of a well-developed and well-nourished girl, thirteen years of age, who seemed to be mature for her age There were no external signs of injury The hair on the head was thick and abundant. The scalp was firmly adherent to the skull. The skull was thick but not abnormal and showed no fracture or sign of injury The dura was firmly adherent to the skull, as is usual in the young On removing the dura, the brain was found to be swollen, tightly filling the cranial cavity The convolutions were flattened out, and the sulci were obliterated so that increased intracranial pressure was indicated There was very little cerebrospinal fluid, the subarachnoid spaces being obliterated by the increased size of the brain There was no sign of hemorrhage on the external surface of the brain, nor was there any sign of trauma, such as lacerations The brain surface was pale, showing no congestion and no inflammatory exudate The consistency of the brain was definitely softer than usual so that removal was difficult There appeared to be no difference in the size of the left and right cerebral hemispheres First, the left lateral ventricle was opened by a longitudinal incision from above. This was normal in size and contained no excess fluid or blood Further longitudinal sections were made of the left hemispheres Nothing unusual was revealed Then the right lateral ventricle was opened, and this also proved to be negative, but on extending the incision backward, a poorly circumscribed cavity was revealed in the occipital lobe This cavity was covered laterally by a thin layer of cortex, thus not communicating directly with the surface of the brain The cavity was several centimeters in diameter, contained about 10 cc of dark red blood, evidently not absolutely fresh and bright red The cavity was lined with a thin layer of shaggy gray material with numerous prominent red spots, resembling the open ends of small blood vessels The cerebellum was normal Also the third and fourth ventricles were normal.

Microscopic Many sections were made of the wall of the cavity in the brain None of them showed any neoplastic tissue There were numerous small hemorrhages in the brain around the cavity, and there was blood on the surface of the wall of the cavity The cavity had no lining but consisted of brain tissue Gross and microscopic appearances were all in favor of a spontaneous intracerebral hemorrhage No single vessel from which the hemorrhage took place could be found

The diagnosis was spontaneous intracerebral hemorrhage.

Case 2 —F B , a white boy, age fourteen, was admitted on October 8, 1947 He had been apparently well for some time prior to admission and had no complaints until the morning of October 8, 1947 He had eaten a normal breakfast and had gone to school, where he became nauseous and vomited He was sent to lie down and was to be taken home but decided to go on his own and went outside and collapsed in the street He was brought to the hospital in a convulsive seizure He had had lobar pneumonia the previous winter and was treated with good results About three months previously he was at a Boy Scout camp where he

became ill. A stiff neck was noted for a few hours, but it did not persist. He recovered in two days, and the diagnosis was an upper respiratory infection. There was no history of headache, diplopia, vomiting, or an unsteady gait.

On admission the patient was comatose. The pupils were fixed to light, and there was marked nuchal rigidity. There was a positive bilateral Kernig's and an equivocal Babinski on the left. The heart and lungs were normal. The remainder of the body was not abnormal.

A spinal tap revealed a grossly bloody fluid under increased pressure. The blood pressure was 106/54. Blood sugar on October 8, 1947, was 162 mg. per cent, urea nitrogen 8.2 mg. per cent. Skull x-rays were normal, no fracture indicated. Blood count on admission revealed 102 per cent hemoglobin, 4,680,000 red blood cells, color index of 1.08, 12,900 white blood cells with 90 per cent polymorphonuclears, 9 per cent lymphocytes, and 1 per cent monocytes. White count repeated two days later showed 24,250 white blood cells, with 93 per cent polymorphonuclears and 7 per cent lymphocytes. A repeat spinal tap on October 10, 1947, was still bloody. Due to the grossly bloody characteristics of the spinal fluid a cell count and chemistry were not done. The temperature ranged from 100 to 102 F. He began to clear mentally but was drowsy and had a severe headache and stiff neck. A spinal tap one week after admission, taken on October 15, 1947, revealed xanthochromic fluid, and a pressure of 130 mm. of water. The spinal fluids of October 8 and 10 were reported sterile. On October 19 he had another convulsion, and the course was downhill. He became comatose, and another spinal tap revealed gross blood. A hemorrhage was noted in the left fundus oculi. He expired on October 22, 1947, fourteen days after onset.

Autopsy

General External Appearance. The body was that of a white boy, fourteen years of age, thin, with some loss of weight. There were no external pathologic signs.

Head. The scalp and skull were normal. There was no sign of fracture in the skull. The cranial cavity was first opened. The dura had a bluish tinge. On cutting it along the edges and lifting it off the brain, to which it was closely applied, very little spinal fluid was found to be present. In fact the surface of the brain was unusually dry. The veins were large, dilated, and very prominent. No free blood was present on the convex surface of the brain. The convolutions were flattened out, showing definitely increased intracranial pressure. On removing the brain, a small amount of dark red, slightly clotted blood was found on the surface of the anterior portion of the left frontal lobe. A small hole was present in the cortex on the undersurface of the left frontal lobe. The left frontal lobe was soft and fluctuant, and looking into the defect, there was seen to be a hemorrhage into the left frontal lobe. No more dissection of the brain was done, but it was removed in its entirety and put into formalin for fixation. At the base of the brain there were some small patches of clotted blood adherent to the brain.

After several weeks' fixation in formalin the brain was cut in many transverse sections.

Beginning at the circle of Willis in the region of the optic chiasma, there was found a large, thrombosed hemorrhage extending forward in the general direction of the left anterior cerebral artery. This clot was subarachnoid and extended into the brain tissue to a depth of 3 cm. and forward to the anterior surface of the left frontal lobe. It had ruptured through the base of the left frontal lobe so that some blood clots were found on the under surface of this lobe.

There was also present a large clot of blood in the left lateral ventricle distending the ventricle and extending backwards into the third and fourth ventricles and appearing also to a slight extent in the right lateral ventricle. This hemorrhage was most marked on the left side and from its appearance seemed to be of a later date than the hemorrhage of the left cerebral artery.

The gross description of the cerebral hemorrhages suggests that there was an initial spontaneous hemorrhage from the left anterior cerebral artery. This hemorrhage was fairly well organized. There was a later hemorrhage into the ventricles. Both were presumably not due to an injury, since there was no sign of it.

Diagnosis was spontaneous subarachnoid and intracerebral hemorrhage from left anterior cerebral artery, spontaneous intraventricular cerebral hemorrhage from choroid plexus, and emphysema of lung.

Comment

The youth of the patients may provide an obstacle to the diagnosis, but the suddenness and severity of cerebral symptoms usually leave no doubt as to what has transpired. There may be rapid exodus, as in Case 1, or the symptoms may be prolonged, as in Case 2, and the clinical picture, at least in the latter instance, is such that the diagnosis of meningitis must be considered. This is usually ruled out by the spinal fluid findings.

The combination of coma and hyperglycemia with glycosuria raises the very important question of diabetic coma. It is not unusual to find hyperglycemia with its attendant urinary findings in cases of cerebral hemorrhage. The differential diagnosis rests largely on the past history of the patient and the subsequent course. It is noted that both of these cases gave a recent history of lobar pneumonia, but it is hard to conceive that this infection had any part to play in the subsequent cerebral episodes, especially in view of the fact that in neither case was the pneumonia severe nor were there any complications. In Case 1 there had been a recent tonsillectomy and adenoidectomy, and again it would be hard to conceive any possible link between this and the hemorrhage.

It is difficult to imagine, as an isolated event, traumatic rupture of vessels situated deeply in the cerebral or cerebellar substance, and the difficulty is increased when no history of violence can be obtained. It is true that aneurysms give rise to cerebral hemorrhage in apparently healthy persons, but the vessels involved are usually those at the base of the brain and most commonly in or near the circle of Willis.[7] Capillary telangiectases are liable to give rise to intracranial hemorrhage in young adults but are most common in the posterior fossa.[8] Westphal is of the belief that cerebral hemorrhage is preceded by ischemia, the result of angiospasm.[14] During the angiospastic period the tissues surrounding the vessels are altered and when the spasm is relieved these tissues do not offer sufficient resistance to the vessel walls, and leakage results. Others feel that the failure of normal development of intra-

cranial structures offers greater response to less trauma, the type of trauma which ordinarily would have no effect.[5] Hypoplastic vessels as found in patients with the so-called "thymic syndrome" are more readily subject to rupture, even spontaneously, than normal vessels Forbus has shown that minute defects in the muscular coats of arteries, especially at vessel junctions, may be regarded as potential aneurysms or blow out points [15] Globus and Strauss have done a thorough study on the subject [16] They feel that there has been confusion between cause and result Their clinical and pathologic studies show that spontaneous cerebral hemorrhage is a terminal phase in a sequence of events. These events have their beginning in a generalized or somewhat localized disease of the cerebral vessels, which results in a closure of one or more of such vessels The area supplied by these vessels becomes ischemic, and there is consequent focal encephalomalacia With the production of such an area of softening, an area of diminished resistance is created, which is the important factor in the causation of the cerebral hemorrhage. Their cases included no young adults and parallel somewhat the theory advanced by Westphal.[14]

There is no unanimity of opinion as to the exact cause or causes for spontaneous cerebral hemorrhage in adolescence The two cases here reported do not offer any definite explanation as to causation but emphasize the fact that cerebral hemorrhage must be looked for and thought of even in young adults

Summary

Two cases of spontaneous cerebral hemorrhage in adolescents are presented with autopsy findings A short review of the literature and the prevailing views as to cause are included

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PHYSICIANS FORM COMMITTEE TO STUDY TREATMENT OF ALCOHOLICS

A warning that untrue statements are being published about a newly discovered drug purporting "to cure alcoholism for a year with one dose" was issued today by Dr Edwin G Zabriskie, professor emeritus of clinical neurology at Columbia University College of Physicians and Surgeons, and consultant neurologist to the Neurological Institute of Columbia Presbyterian Medical Center Dr Zabriskie spoke as chairman of the newly formed Organization Committee for Research on Medical Treatment of Alcoholic Patients, which is developing plans for the investigation of a drug known as tetraethyl thiuram disulfide, now being used in Denmark and Sweden for the treatment of alcoholics.

"The Committee feels that the toxic properties and therapeutic value of this drug have not been fully explored," Dr Zabriskie states "Improper use of the drug may prove detrimental to the development of a sound treatment which would benefit hundreds of thousands of alcoholics According to the clinical reports of Danish physicians, the results of treatment with this drug are sufficiently encouraging to justify additional research, which should be completed before the drug is released by the United States Food and Drug Administration for general use by physicians in the treatment of alcoholics"

Other members of the Committee are Dr Oskar Diethelm, psychiatrist in chief, New York Hospital, Dr Ralph E Herendeen, roentgenologist, Memorial Hospital, Dr Walter W Palmer, Bard professor emeritus of medicine, Columbia University College of Physicians and Surgeons, Dr Thomas A C Rennie, associate professor of psychiatry, New York Hospital, Dr L Ogden Woodruff, president of the Health Council of Greater New York City, Dr A T Milhorat, associate professor of medicine, Cornell University Medical College, Basil G Eaves, former member of the staff of the National Tuberculosis Association and acting executive secretary

TRICHINOSIS COMPLICATING PREGNANCY

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BECAUSE of the difficulty of diagnosing the sporadic case of trichinosis and because of the rarity of this complication in pregnancy, the following case is presented

Case Report

L. A., a twenty-two-year-old, white, Italian war bride, para 0, gravida 1, was first seen in this hospital on November 6, 1947, when she was hospitalized for three days because of a mild chronic endocervicitis and cervical erosion At this time she was five months pregnant Expected date of confinement was March 11, 1948 On January 13, 1948, she was hospitalized for four days because of a right-sided pyelitis which responded readily to combined sulfa therapy

On February 5, 1948, she came to the clinic complaining of itching and swelling of both eyes At this time, the clinic physician thought she had a mild angioneurotic edema, and pyribenzamine, 50 mg a day, was prescribed. On February 10, the patient was seen in the admitting room of this hospital, where a diagnosis of mumps was made, and the advisability of transferring the patient to a contagious disease hospital was being considered As it was thought unwise to transfer the patient in her present condition, she was admitted to the isolation portion of the obstetrical service

Physical examination on admission revealed a well-developed, well-nourished white woman with such marked edema of the lids that the eyelids were practically closed There was also edema of the lower half of the face, especially pronounced in the *pre-auricular areas* There was a 1 plus pretibial edema and a 1 plus edema of the proximal portions of the carpal phalanges The muscles of the forearm, thigh, *and calf of the leg were tender to compression.* Homan's sign was negative bilaterally The remainder of the physical examination was essentially negative

The white blood count at this time was 22,300 with 77 per cent polymorphonuclears, 8 per cent lymphocytes, and 11 per cent eosinophils A diagnosis of acute trichinosis was entertained at this time, and with further questioning the following history was obtained from the patient

She was an Italian war bride who had been in this country for the past nine months On February 2, 1948, she and her husband had pork chops which were well cooked, since she knew that pork contained "worms" On Thursday, February 5, the day she appeared in clinic, she had noticed for the first time a peculiar swelling about her eyes The pills the doctor gave her did not help, for even though she took them as prescribed, the swelling about the eyes increased. On February 6, she began to have swelling of the face and hands That night her temperature rose to 102 F and was accompanied by bouts of shaking chills On February 8, patient noticed pains in the muscles of the forearm and calfs of her legs A private physician saw her on February 9 and recommended that she go to the hospital because she might have mumps She then appeared in the accident ward of this hospital for admission on February 10, eight days after the ingestion of the pork chops About 11 00 A M the patient was having irregular abdominal cramps, and it was believed that she was in early active labor

Although it was suspected that the patient had trichinosis, a number of tests were performed to rule out the possibility of the presence of any other disease causing this bizarre clinical picture Laboratory reports on the day of admission were as follows urine culture, negative, blood culture, negative, blood chemistry, sugar 125 mg per cent, urea nitrogen 26 mg per cent, agglutinations negative for paratyphoid A and B, Proteus X-19, Brucella abortus, and Typhoid H, Typhoid O positive 1 40, Kahn negative Urinanalysis revealed a specific gravity of 1 022, 1 plus albumin, and rare red and white blood cells per high power field

The medical consultant who saw the patient within a few hours of admission felt that the patient might have an erysipeloid infection of the face

That evening at 6 00 P M , the temperature rose to 105 6 F , pulse rate was 138, and the fetal heart rate was about 180 By rectal examination, the cervix was still thick and one finger dilated

At this point, although no cause could be found for the temperature, it was considered advisable to start the patient on 100,000 units of penicillin immediately followed by 50,000 units every three hours Alcohol sponges and tap water enemata were instituted to lower the temperature.

As the temperature persisted at about 105 F , combination sulfadiazine and sulfathiazole therapy with sodium bicarbonate was instituted at about 1 00 A M.

At 2 00 A.M of the morning of February 11, the fetal heart tones disappeared At this time the temperature was 104 6 F The cervix on rectal examination was two and a half fingers dilated, with pains occurring regularly every two minutes At 3 00 A M the patient was fully dilated and delivered spontaneously a stillborn male child weighing 7 lbs 8 oz , after a first stage of fourteen hours and a second stage of fifteen minutes

By 8 00 A M of February 11, the temperature was down to 101.2 F , pulse rate was now 152 and regular, blood pressure 98/74. Fundoscopic examination at this time with mydriatics revealed mild blurring of the nasal margins of the disks with a small round hemorrhage just above the macula at a bifurcation of the superior temporal retinal arteriole This hemorrhage disappeared within three days of the time it was noted. The retinal arterioles and veins were normal in appearance.

It was also noted on February 11 that the facial edema was subsiding somewhat, although muscular tenderness was still present White blood cell count on this date was 23,500 with 77 per cent polymorphonuclears, 14 per cent eosinophils, and 6 per cent lymphocytes A medical consultant on this day felt that the patient either had periarteritis nodosum or trichinosis

On February 12, the combination sulfa therapy was stopped, and immediate dehydration therapy with limitation of fluid and 50 cc of 50 per cent glucose three times a day was started, since it was

Presented at a meeting of the Bronx Obstetrical and Gynecological Society May 24 1948.



FIG 1 Low power magnification of unencysted, coiled Trichina larvae

felt that the patient was a severe pre-eclamptic in impending danger of having convulsions Streptomycin, 2 Gm daily in eight divided doses, was instituted on this day Although trichinosis was probably the most likely diagnosis, nothing was left undone in the way of therapy for the patient White blood count on this day was 28,000 with 40 per cent eosinophils, 57 per cent polymorphonuclears, and 2 per cent lymphocytes

Following the first injection of streptomycin, the temperature dropped precipitously within two hours from 104 F to 97 F, but within a period of eight hours had gone up again to 104 F Despite penicillin and streptomycin, the temperature continued to spike up to 104 F with almost daily remission to subnormal levels Penicillin and streptomycin were cut on February 14

Giemsa stain of the sediment of 5 cc of laked blood taken on February 15 revealed the presence of what was presumed to be trichina larvae On February 16 the precipitin test was performed by the New York Health Department and found to be strongly positive for trichinosis (immediate 1 320, two hours 1 1280) Skin test on February 18 was weakly positive for trichinosis. On February 25, twenty-three days after the initial infection, a biopsy of the gastrocnemius muscle revealed the presence of numerous motile trichinae slowly curling and uncurling themselves in a spiral fashion Histologic examination of the muscle revealed a focal and diffuse myositis with circumscribed accumulations of polymorphonuclears, lymphocytes, plasma cells, a few large monocytic macrophages, and only an occasional eosinophil In several areas unencysted coiled and straight trichina larvae were noted, surrounded by proliferating sarcolemmal cells and chronic inflammatory cells consisting, for the most part, of plasma cells, lymphocytes, and occasional polymorphonuclears and eosinophils (Fig 1) Digestion of 1 Gm. of same specimen of muscle also revealed the presence of 11 to 15 coiled larvae and about 20 small larvae, a very moderate infestation according to the classification of Hall and Collins.[1] It is interesting to note at this point that the gastrocnemius muscle at the time of biopsy appeared pale pink in color, edematous, and of almost a cystic consistency

From February 14 on, the fever exhibited almost daily remissions, but with each successive rise in temperature the peak would be slightly less than that of the previous day The peak of 46 per cent eosinophilia was reached on February 17, fifteen days after the initial infection After this date both the total white count and eosinophil count continued to decrease (Table 1)

Soft tissue x-rays of the muscles of the extremities and diaphragm taken on February 25 revealed no evidence of calcification

On March 4, thirty-one days after the pork had been ingested, the patient was discharged from the hospital afebrile but still complaining of slight pain and tenderness in the calf and thigh muscles

X-ray follow-up in May 1948 revealed no roentgenologic evidence of calcification of the cysts X-rays of diaphragm and lower extremities on May 14, 1949, fourteen months after onset of disease again revealed no roentgenologic evidence of calcification of the cysts.

Additional laboratory data were as follows February 20—cholesterol 180 Mg per cent, cholesterol esters 125 Mg per cent Urinary findings from date of admission to February 17, the urine contained 1 plus albumin and occasional white and red blood cells on microscopic examination After February 17, the urine was essentially negative. Electrocardiograms taken on February 13, 19, 27, and March 3 revealed no significant changes from normal (Table 2)

Autopsy of the stillborn child revealed no significant pathology, fetal death being attributed to the hyperpyrexia of the mother

TABLE 1.—CHANGE IN BLOOD COUNT DURING COURSE OF DISEASE

Date	Day of Disease	Red Blood Cells	Hemoglobin (Per Cent)	White Blood Cells	Eosinophils	Polymorphonuclears	Stab Forms	Lymphocytes	Monocytes	Basophils
Feb 10	8	2 000 000		22 300	11	77	3	8	1	
Feb 11	9			23 500	14	77	3	6		
Feb 14	13			22 500	34	53	5	7		
Feb 15	14	3 240 000	10							
Feb 17	16			30 250	46	46		8		
Feb 21	19			12 400	28	44		28		
Feb 28	26	3 640 000	66	12 200	24	55	2	16	3	1
Mar 2	29			11 150	14	40		46		

TABLE 2.—ADDITIONAL BLOOD CHEMISTRY FINDINGS

Date	Day of Disease	Sugar	Urea Nitrogen	Creatinine	Plasma Protein	Albumin	Globulin
Feb 11	9	125	26				
Feb 12	10		25 5				
Feb 16	14	83	20		5 1	2 7	2 4
Feb 17	15	90	14				
Feb 20	18	75	14	1 1			
Feb 24	22				7 6	2 9	4 7
Mar 3	30	82	12	1 5			

Digestion tests of the placenta, heart, liver, and diaphragm of the fetus revealed no trichina present

Reference

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The author wishes to express his appreciation to Dr Murray L Brandt director of obstetrics Fordham Hospital and Dr Louis R. Ferraro director of laboratories Fordham Hospital for their helpful comments and suggestions in preparing this paper

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ACUTE MYELOGENOUS LEUKEMIA AND PREGNANCY

D J GRANDIN, M D , and H T POWERS, M D , New York City

(From the Department of Obstetrics and Gynecology, Lenox Hill Hospital)

THE coexistence of leukemia and pregnancy is rare. In 1943 McGoldrick and Lapp reviewed the literature and totaled 80 authenticated cases [1] Subsequent reviews and case reports brought the total to 92 [2–5] The present report brings the number of established cases to 93, 38 acute and 55 chronic

Case Report

The patient was a nineteen-year-old white primigravida, first seen in the Lenox Hill Hospital antepartum clinic on April 16, 1947 Her expected date of confinement was November 21, 1947

Her past history, family history, and menstrual history were normal

Physical examination revealed a somewhat undernourished woman. The remainder of the examination was normal The uterus was the size of a nine weeks gestation, and the pelvis was an adequate gynecoid Laboratory studies showed the urine and Wassermann negative, blood type A, Rh$_0$ positive, and hemoglobin 10 Gm

The patient was placed on iron therapy and followed at monthly intervals A marked generalized pallor was noted on October 16, 1947 A repeat hemoglobin was 7 5 Gm A subsequent blood count showed erythrocytes 2,000,000, hemoglobin 7.2 Gm., leukocytes 13,000 with 95 per cent "large lymphocytes," undoubtedly a misinterpretation

She was admitted for further study on October 27 It was elicited that she had noted recurrent, transient pinpoint red lesions on the skin throughout the pregnancy and increasing fatigue, back pain, and gingival bleeding during the month prior to admission

Physical examination revealed a pale but not acutely ill woman No rash, petechiae, or purpura were present No other abnormalities were noted The uterus was the size of a thirty-six weeks gestation.

Blood studies showed the erythrocytes to be 2,600,000, hemoglobin 8 1 Gm , white blood count 15,000, differential count, myeloblasts 78 per cent, myelocytes 1 per cent, polymorphonuclear neutrophils 4 per cent, lymphocytes 11 per cent, and monocytes 6 per cent, platelets 190,000 The sedimentation rate was 33 mm and 71 mm in fifteen and forty-five minutes, respectively, the hematocrit 25 per cent, mean corpuscular volume 96 cu. microns, mean corpuscular hemoglobin 30 micromicrograms, and mean corpuscular hemoglobin concentration 32 per cent The red cell fragility was normal Sternal bone marrow examination revealed almost complete replacement by myeloblasts The urine showed a trace of albumin 40 to 50 red blood cells, and occasional white blood cells A Rumpel-Leede test was strongly positive A cephalin flocculation test was 4 plus Additional laboratory studies were essentially normal (Table 1)

TABLE 1 —ADDITIONAL LABORATORY STUDIES

Chest film	Normal
Electrocardiogram	Normal
Basal metabolic rate	Plus 1
Heterophil agglutinins	Negative
Urea nitrogen	16 7 mg. per cent
Creatinine	0 5 mg per cent
Uric acid	4 5 mg per cent
Sugar	73 0 mg per cent
Carbon dioxide combining power	54 volumes per cent
Total serum protein	6 9 Gm
Albumin	3 9 Gm
Globulin	3 0 Gm
Icteric index	4 0
Prothrombin time	13 seconds (control 13 seconds)
Total cholesterol	181 mg per cent
Free cholesterol	73 mg per cent
Cholesterol ester	108 mg per cent
Alkaline phosphatase	4 3 Bodansky units

Therapy consisted of a high caloric, high protein diet multivitamin supplements with additional vitamin C, vitamin K and rutin, and transfusions

The temperature remained normal. Shortly after admission, nasal and gingival bleeding occurred, and petechiae appeared on the legs On the above regimen the bleeding phenomena decreased. By November 10 the erythrocytes were 3,700,000 and the hemoglobin 12 4 Gm

The next day labor ensued, and prophylactic penicillin was started. A healthy infant was delivered spontaneously, utilizing a small episiotomy The placenta and membranes were expressed intact followed by intravenous ergotrate The uterus contracted well The blood loss was estimated at 400 cc A 1,000 cc -transfusion was given after delivery The lochia was excessive only the first twelve hours postpartum Penicillin, vitamins, rutin, and transfusions were continued On the second postpartum day the erythrocytes were 4,400,000 and the hemoglobin 14 Gm

By the tenth postpartum day the general condition of the patient was fair, the uterus well in-

voluted, the episiotomy healed, the hemoglobin 10 Gm., the white blood count 18,600 with myeloblasts and myelocytes predominating, and she was discharged.

The patient was readmitted December 20 (thirty-nine days postpartum), having had pustular lesions of the skin, increasing anorexia, weakness, and five days of nasal and gingival bleeding, hematuria, fever, and headache. Vaginal bleeding had ceased one week before admission.

Physical examination revealed marked pallor and lethargy, temperature 102.4 F., pulse rate 110, respirations 20, and blood pressure 110/50. There were petechiae on the thighs, the liver, spleen, and uterus were slightly enlarged. The red blood count was 1,400,000, hemoglobin 4.0 Gm., the white count 22,500, with myeloblasts 86 per cent and myelocytes 1 per cent. Bleeding and clotting time were normal. The urine contained many red cells.

General supportive measures, including transfusions, were started. The subsequent course was febrile. Severe uterine bleeding started the second day and contributed heavily to the anemia that recurred in spite of transfusions. Curettage of the uterus and packing with oxidized gauze failed to control the bleeding. Packing with oxodized gauze and plain gauze with removal of the latter after fifty hours controlled the bleeding moderately well, but the patient continued a downhill course with signs of marked peritoneal irritation and expired sixty-one days postpartum.

Autopsy of the abdomen only revealed a myelogenous leukemic infiltration of the liver, spleen, adrenals, kidneys, mesenteric nodes, and uterus. The pancreas and ovaries were not involved. The uterus contained no endometrium, and the myometrium was necrosed. The lower aspect of the anterior wall contained a perforation leading retroperitoneally into the vesicouterine space. The bladder was intact. There was some hemorrhage into the broad ligament.

Discussion

The blood and bone marrow picture, absence of enlarged liver and spleen, and clinical course make this a case of acute leukemia. The onset was probably during the first trimester.

If a complete blood study had been done shortly after the first hemoglobin report, detection of the blood dyscrasia might have been earlier. In concord with Harris *et al* this suggests the importance of careful study of the blood picture in pregnancy.[2]

The relatively long course of this case may be attributable to penicillin, transfusions, and possibly rutin therapy. The management in general was conservative and supportive.

Curettage and tamponades of the uterus to control bleeding in the late postpartum period resulted in peritonitis and perforation of the uterus, the latter due either to instrumental perforation or rupture of the uterine wall due to erosion of the involved myometrium. Supravaginal hysterectomy might have been preferable or perhaps no uterine manipulations whatsoever.

Blood smears taken at delivery revealed no abnormal cells in the fetal blood. Sections of the placenta showed myeloblasts in the maternal sinuses only.

The baby's neonatal course was uneventful. Blood studies at four days and four weeks were normal.

Summary and Conclusions

1. A case of coexisting leukemia and pregnancy is reported.
2. The pregnancy, labor, and delivery were conducted conservatively and successfully. Penicillin, transfusions, and rutin were important therapeutic agents.
3. The necessity of careful evaluation of the blood picture during pregnancy is again re-emphasized.
4. The use of curettage and tamponade to control uterine bleeding in this type of blood dyscrasia is probably undesirable.

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BUFFALO'S BANDWAGON

A sidelight on the way socialized medicine is working out in England from the point of view of the patient is given in a letter that indirectly has come to the Bandwagon. It was written by one who is not professionally interested in the question of socialized medicine. It was written with no thought that it would be seen by others than those to whom it was addressed. Because it does represent such a detached viewpoint, this excerpt is set forth here:

"The National Health Service, I feel sure, will break down and possibly bring the government down with it. Free doctors, free dentistry, free opticians, free hearing aids, free medicine. Oh, it is a lovely romp. Everyone who has a belly ache, tooth ache or minor ailment that should be forgotten runs to the doctor.

"I had necessity to go to the doctor last week and being a private patient of his for about 30 years phoned for an appointment. I kept the arrangement and was given preferential treatment. The waiting room was packed and a big argument arose because I was given preference over the national service freebooters as I call them. The doctor said he was booked until 10 P.M. and by the look of him he will break down under the strain. And there are four partners, all up to their necks.

"A little story of a doctor is worth telling. He came out of his consulting room, according to the story, and said to the crowds of patients, 'Now if any of you are suffering from nerves, go home for I am full of nerves myself', and many went home.

"It will be months before dentists and opticians can give attention and people wait months for hospital beds. This sort of thing never happened before the service came into force."—*Buffalo Courier-Express, April 11, 1949*

Special Article

THE AMERICAN ACADEMY OF GENERAL PRACTICE*

HOWARD A RUSK, M D , Associate Editor, New York *Times*, New York City

EARLY in March, a meeting that had real medical significance was held in Cincinnati. It was the first meeting of the American Academy of General Practice, an organization of more than 10,000 general practitioners

An attendance of 1,500 had been expected, but 3 500 family doctors came from all parts of the country, and they came with one primary purpose—to learn Every scientific section was crowded to the doors, with hundreds standing The attention was rapt, with at least half of the audience taking notes

Proud of their "specialty," the doctors attending had as their objectives improving the general practice of medicine and putting the family doctor back in his rightful place in the eyes of the public as the first line of medical defense

To be eligible for membership in the Academy of General Practice, a physician must have been graduated from an approved school, have a minimum of one year's approved rotating internship (they recommend two or preferably three years), be licensed to practice medicine in his state, and have shown a continuing interest in his medical advancement He must have been engaged in general practice for at least three years, and, to be eligible for continued membership, must spend a minimum of 150 hours in postgraduate training during his first three years in the Academy If these requirements are not fulfilled, he is dropped.

The Academy of General Practice resulted from a movement among groups of general practitioners from several states, who were convinced that progress and advancement in the general practice of medicine and surgery was basic to the welfare of the people and to the medical profession. They are not a political pressure group They declare that their aim is to work in close cooperation with the American Medical Association and other medical groups The potential membership is great, for there are estimated to be more than 100,000 general practitioners in the United States

In the undercurrent and overtones of the entire meeting, one sensed a tremendous, almost feverish desire to absorb every scrap of information. There were papers on surgical methods for the relief of intractable pain, cancer, the significance of "that old tired feeling", heart disease, obstetrics, malnutrition, industrial and rural medicine, and the problems of chronic disease.

The Congress of Delegates, policy-making body of the Academy, worked on resolutions reflecting the Academy's stand on a number of controversial medical problems After asserting their unqualified opposition to compulsory health insurance, the Congress of Delegates passed the following resolution

"We recognize the great advances made in health insurance in the past ten years by private insurance carriers as well as by Blue Cross and Blue Shield and others on a voluntary basis We wish these agencies and companies to know that the American Academy of General Practice offers them full support We encourage them to continue to offer to the people of America a variety of types of voluntary insurance, placing greatest emphasis on that type which covers 80 to 90 per cent of the medical and hospital costs"

Another critical problem considered in the Congress of Delegates was the matter of hospital training for physicians entering general practice After discussion, they recommended two years' hospital training as a desirable minimum, which would include a broad program in medicine, pediatrics, obstetrics, gynecology, and surgery, pointing out that they do not expect to turn out finished surgeons, but doctors able to make surgical diagnoses, take care of minor surgical procedures, and be responsible for major surgery until they can get adequate help

They also ask a place on the hospital staff for the general practitioner, and wisely do not ask that he be admitted on the unlimited status of the specialist, but that he should have professional privileges commensurate with his ability, specifying this as follows

(*a*) Minor privileges in any service will allow the physician to treat patients when, for any cause the treatment does not involve either a serious hazard to the life of the patient or a danger of disability

(*b*) Intermediate privileges in any service will allow the physician to treat patients when, for any cause, such treatment does not involve a serious hazard to the life of the patient, but does involve a danger of disability

(*c*) Major privileges in any service will allow the physician to treat patients when, for any cause, such treatment involves a serious hazard to the life of the patient In the performance of clinical procedures or in the management of patients in the hospital, the ultimate evaluation of the judgment and ability of the general practitioner shall rest with the Qualifications and Credentials Committee

Such a program would give the general practitioner an opportunity to look after his own patients in the hospital and would safeguard the patient against some of the more radical members whose judgment of ability might be questioned by other professional members on the hospital staff

It was heartening to attend the initial meeting of the American Academy of General Practice, heartening, because of the high caliber of the men present It made one feel good to know that the primary responsibility of medical care in this country is in their hands The tempered judgment of their deliberations, that recognized both the abilities and the limitations of the physicians doing general practice, made evident the breadth of concept of this group The eagerness with which they sought medical truth presages a bright future for medical progress

* Abstract of an article which appeared in the New York Times March 13 1949

SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting on April 14, 1949, the Council considered the following matters, taking action as indicated

Secretary's Report

Remission of Assessments—Remission of annual assessments was voted on account of service with the armed forces for two members for 1949, 14 for 1948, one for 1947, and, on account of illness, five for 1949, and 9 for 1948 Nine War Memorial assessments were remitted on account of illness and five on account of service with armed forces

After discussion, *it was voted* to disapprove a recommendation to remit Dr William J Garvin's 1949 dues because of his serving a postgraduate residency

It was voted to reconsider the actions of March 10, 1949, to remit 1949 dues for Dr Oliver T Ghent and Dr Joseph C Tedesco because they were serving postgraduate residencies

Dr Anderton stated that Wyoming County had been notified that the Council had remitted the dues for Dr Oliver T Ghent and Dr Joseph C Tedesco

After discussion, *it was voted* that this request from Wyoming County Medical Society be denied, and the Secretary instructed to write that the previous action had been contrary to the bylaws

It was voted that this matter be referred back to the secretary of Wyoming County Medical Society suggesting a resolution on this subject be introduced in the House of Delegates of the State Society

A request from the Medical Society of the County of Kings for the remission of 1948 dues and War Memorial assessment for Dr Charles L Stone who is to be nominated to be a retired member was denied, on account of insufficient information.

A request from the Medical Society of the County of Kings for refund of 1949 dues for Dr Joseph Dolin was considered Dues were paid in January In February Dr Dolin resigned and moved to New Jersey

After discussion, *the motion to refund was decided* by a rising vote, 11 for and 5 against

Dr Martin B Tinker, Sr, Tompkins County Medical Society, was nominated for Associate Fellowship in the American Medical Association

Communications—1(*a*) Letter from Dr Charles F McCarty, secretary, Coordinating Council of the Medical Societies of Bronx, Kings, New York, Queens, and Richmond, dated March 31, 1949, requesting the appointment of a representative from the Coordinating Council as a member of the Legislative Committee of the State Society (*b*) Resolution dated April 12, 1949, requesting an increase of the Committee on Legislation to seven members, four to be selected from Greater New York City, and urging the procurement of an assistant for the Executive Officer at Albany at the earliest possible moment

After discussion, *it was voted* to request Dr Masterson and Dr Holcomb to meet a representative or two from the Coordinating Council to obtain information and report

2 Letter dated March 24, 1949, from Dr John J Finigan, president, Medical Society of the County of Monroe, enclosing resolution endorsing the American Medical Association twelve-point plan for the advancement of medicine and public health, and opposing compulsory health taxation bills.

3 Letter dated March 17, 1949, from Dr Joseph A Geis, Lake Placid, requesting copy of Council minutes every month.

It was voted that the Secretary should write Dr Geis that if it is difficult or inconvenient for him to obtain the minutes from his county society secretary, he let the Society office know and we will supply him with a copy

4 Letter, March 15, 1949, from Dr Charles H Loughran, secretary, Medical Society of the County of Kings, requesting refund of 1949 assessment to the Estate of Dr Henry J Goubeaud, Jr Dr Goubeaud died on February 10, 1949 His assessment had been paid on January 13

After discussion, *it was voted* that the Secretary inquire if there are any extenuating circumstances.

5 Letter from Dr Darrell G Voorhees, chairman of the Section on Ophthalmology and Otolaryngology, with a request from Dr James S Greene, a speaker on the annual meeting program, who would like the Society to pay expenses of one patient from New York to Buffalo and back for demonstration. The cost would be approximately $50

It was voted that the Secretary write Dr Voorhees that the Council considers it would be a bad precedent to pay such expenses

6 Letter dated March 30, 1949, from Mrs Mabel Detmold, president of the New York State Nurses Association, to Dr Frey, chairman of the Committee on Nursing Education, in regard to improving cooperation between hospitals, doctors, and nurses

7 Letter dated March 29, 1949, from Mr Louis Schenkweiler, president of the Greater New York Hospital Association, to Dr Simpson, State Society President, urging the necessity for better coordination of legislative programs of the medical societies and the Greater New York Hospital Association

After discussion, these two letters were referred to the new special committee regarding legislative matters, consisting of Dr Masterson and Dr Holcomb

8 Letter dated April 8, 1949, from the Committee of Revision of the U S Pharmacopoeia 1940–1950, requesting a contribution to its building fund

After discussion, this request was referred to the Board of Trustees with the notation that the Council looks favorably upon it

9 Letter dated April 13, 1949, from the American Museum of Health, Inc, requesting endorsement for establishment of a Museum of Health in the City of New York

After discussion, *it was voted* to refer the matter to the Public Health and Education Committee

At the last meeting of the Council you voted to request that the Board of Trustees appropriate $150 toward expenses of the Middle Atlantic States Conference on Medical Service, of the American Medical Association This recommendation is being studied by the Board of Trustees and will be considered on April 14 In accordance with your recommendation, $20,555 was appropriated by the Board of Trustees on March 14, 1949, for *Directory* deficit An appropriation of $75 for one delegate to the U S Pharmacopoeial Convention was also voted by the Board of Trustees as recommended by you

On March 15, 1949, your Secretary conferred with Professor Eli Ginsberg of the Department of Economics of Columbia University and his associate, Dr Saunders These gentlemen are studying the economic situation of hospitals for the State legislature

At the February 10, 1949, meeting of this Council recommendation was voted to the Board of Trustees that $50 be appropriated for expenses of the Conference of Presidents and Other Officers of State Medical Associations At its meeting on March 10 the Trustees referred this recommendation back to the Council for further consideration

It was voted that this again be submitted to the Trustees, with the understanding that the Secretary read an explanatory letter received from the Conference

Your Secretary has attended all committee and board meetings since last month

The Treasurer's report was accepted

Reports of Committees

Legislation.—After discussion,

It was voted that the Speaker invite Miss Mary Donlon to address the House of Delegates regarding Assembly Introductory Bill 3063 (Mr Mailler)

Dr Holcomb, chairman, added that improved coordination was needed to obtain favorable action on our legislation

Economics—Mr Farrell, director of the Medical Care Insurance Bureau, reported he had spoken on medical care plans before several meetings

He presented the fourth Quarterly Progress Report on the voluntary medical care insurance plans Also, the Third Annual Progress Report has been mailed to presidents and executive directors of New York State Plans, members of the Subcommittee on Medical Expense Insurance, Council and Board of Trustees as well as to others interested in voluntary medical care insurance Additional copies are available

The Bureau is developing a pamphlet for distribution at the Annual Meeting, containing progress of the plans and an abstract report to members of the Society on the activities of the Subcommittee on Medical Expense Insurance during the past year These pamphlets will also be distributed by the Public Relations Bureau with its News Letter

Dr Wertz, chairman, read a resolution on Maimonides Hospital passed by the Medical Society of the County of Kings February 15, 1949, urging the Board of Directors of the Maimonides Hospital to reconsider their limiting staff membership to one field of medicine and to retain general practitioners on the staff This the Board had refused, and Kings County requests the Medical Society of the State of New York and the American Medical Association to urge the Board of Directors of Maimonides Hospital to reconsider

After discussion, *it was voted* that the Secretary refer this matter to the Council on Education and Hospitals of the American Medical Association for information

Ethics.—Dr Reuling, chairman, read a letter from the Secretary of the Medical Society of the County of Cayuga and from Dr Walter C Levy, District State Health Officer, in reference to members of the Cayuga County Medical Society participating in a radio program that has not been passed upon by the County or State Society

Dr Reuling stated there had been no meeting of the Committee on Ethics, but in the opinion of the chairman this should be purely a county society matter As long as there is nothing in the platter prepared for broadcast that is contrary to our Code of Ethics, he could see no reason why the county society should not cooperate and have any members follow the formal program with individual comment Dr Reuling stated he had talked with Dr Curphey, chairman of the Public Health and Education Committee, and that Dr Curphey was in agreement with that opinion

It was voted to approve the report and recommendations

Malpractice Insurance and Defense Board.—The following actions were taken on matters presented by the Committee

It was voted to authorize the discontinuance of a certain doctor's policy or policies when they expire on July 7, 1949

It was voted that members in good standing in the New York State Homeopathic Medical Society be allowed to participate in our Group Malpractice Defense Insurance

At its meeting on April 6 the Malpractice Insurance and Defense Board decided that it would be desirable to have Mr Joseph Linder present to the House of Delegates in person his report of the audit and actuarial study of the Society's Group Malpractice Insurance for the year 1948

It was voted to approve Mr Linder's proposed attendance and to request the Board of Trustees to appropriate $55 to cover his expenses

Publication Committee—Dr Kosmak, chairman reported that the Committee met April 13 and a number of routine matters were discussed The JOURNAL and *Directory* are running within the budget, and the advertising income for the first three months of the year has been above that for the same period in 1948 This has permitted continuation of the additional 16 pages of scientific material

Public Health and Education.—The Council voted to express appreciation to Dr Charles D Post for his careful and efficient work as Acting Chairman of the Public Health and Education Committee

Dr Curphey, the new chairman, added his personal thanks to Dr Post and Mrs Virginia Kelley for the splendid help they had been to him in the process of being initiated in his new task.

He reported that Dr Larimore, director of the Office of Public Health Education of the State Health Department, requests the State Society to organize a committee to review movie films that are available for health education He pointed out that the Council on October 14, 1948, voted the establishment of a motion picture review board, appointments to which would be made by the President when, as, and if necessary

The President was empowered to appoint this Committee

It was voted to approve Dr Larimore's request for approval of free distribution in doctor's offices of pamphlets on diabetes, heart disease, and arthritis, prepared by the State Health Department

It was voted that approval be expressed of the program for demonstration of adult heart disease prepared by the State Health Department

The recommendation that the Board of Trustees be requested to appropriate $75 for Dr William E Ayling's expenses as representative of the Society at the Conference on Physicians and Schools at Highland Park, Illinois, October 13 to 15, 1949, *was approved*

Public Relations—Dr Winslow, chairman, reported activities and immediate objectives.

Veterans Administration, Liaison with.—Dr Wertz reported for Dr Bauckus that he had signed a renewal of the existing contract with Veterans Administration for three months and that Dr Bauckus intends to be in Washington next Wednesday to confer with Dr Magnuson, head of the Veterans Administration, and representatives of the American Medical Association

Workmen's Compensation.—Dr Kenney, chairman, reported on the activities of this Committee

New Business

It was voted to appoint a representative of the Society as a member of the Industrial Cancer Committee of the New York State Department of Labor

It was voted that the proposal of Dr John L. Bauer for membership on the Disciplinary Committee of the Board of Regents be endorsed.

It was voted to make the date of the June Council meeting *Thursday, June 16, on account of the* meeting of the American Medical Association.

Dr Simpson thanked the Council for their consideration and kindness during the past year

Dr Masterson stated "Unless we have some special meeting, this will be the last meeting for Dr Simpson to preside I would like, sir, to spread upon the minutes of our Council our thanks and appreciation for the patient, fair, dignified, and courteous manner in which you have conducted these meetings"

The motion was put to a rising vote and amid applause *was carried* unanimously

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ADVISE CAUTION IN USE OF DICUMAROL

Dicumarol, a drug which prevents clotting of the blood, should be used with extreme caution, warn three Chicago doctors and two Ann Arbor, Michigan, doctors in the March 19 issue of the *Journal of the A M A* In no case should the drug be used unless reliable laboratory facilities for testing prothrombin, a factor involved in clotting, are present, say Ivan F Duff, M.D , and William H Shull, M D , from the Department of Internal Medicine, University of Michigan, and the University of Michigan Hospital The drug should be used with caution in patients with severe high blood pressure The Ann Arbor doctors report a case of death, apparently from dicumarol, at the University Hospital

They report seven deaths attributed to dicumarol among patients with subacute bacterial endocarditis—inflammation of the membrane which lines the heart—and 16 deaths attributed to dicumarol among patients with other conditions These 23 deaths occurred at various places other than the University of Michigan Hospital.

Animal experiments show that dicumarol treatment is not advisable for pregnant women advise Alfred P Kraus, M.D , Samuel Perlow M D , and Karl Singer, M.D , from the Department of Hematologic Research, Medical Research Institute, and the Department of Surgery Michael Reese Hospital, Chicago

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DEATHS IN 1948

While deaths from all causes among ordinary life insurance policyholders occurred at a new low rate in 1948, heart deaths accounted for more than half of the total, the Institute of Life Insurance reports The heart disease death rate rose last year to a record high Total deaths per 100,000 were 625 1 in 1948, compared with 668 8 in 1946 and 751 2 in 1944 Deaths from the chief cardiovascular-renal diseases, commonly called heart disease, were 327 9 per 100,000 in 1948, 325 4 in 1946, and 324 1 in 1944 These include diseases of the heart, cerebral hemorrhage and nephritis, and together represented 52 per cent of total deaths in 1948

Cancer, second most important cause of death, accounted for 98 7 deaths per 100,000 last year, compared with 98 0 in 1946 and 92 7 in 1944. Accidents had a death rate of 42 7 in 1948, 48 4 in 1946, and 52 4 in 1944. This improvement was shown even though motor vehicle accidents rose from 13 in 1944 to 18 2 in 1948 Tuberculosis deaths declined to a record low rate of 11 4 per 100,000 in 1948, one-third less than in 1944

The 1948 experience among industrial insurance policyholders followed a similar pattern, but on higher level, due to the difference in the types of business *Industrial insurance policyholders are not* generally subject to medical examination when applying for policies

In 1948, the deaths from all causes among industrial insurance policyholders were 771 9 per 100,000, compared with 834 4 in 1946 and 867 in 1944 The deaths from diseases of the heart in 1948 were 357 8 per 100,000, or 46 per cent of the total deaths

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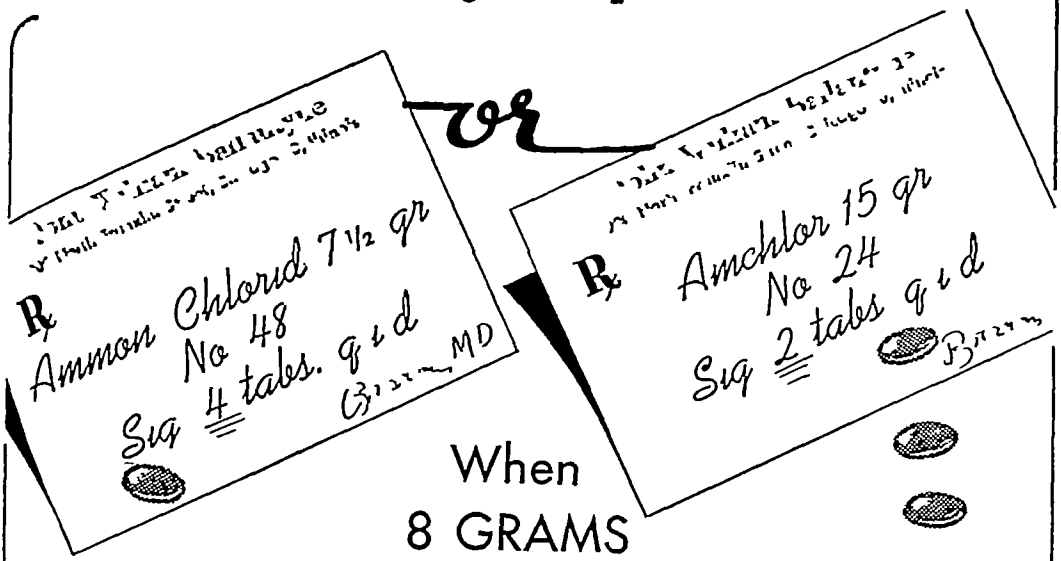
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NECROLOGY

Achille Frank Baratta, M D, of the Bronx, died on May 12 of a heart attack while driving his car across the Triborough Bridge from Manhattan to the Bronx He was fifty-two A native of Naples, Italy, he came to this country as a boy, and received his medical degree from Tulane University Medical School in 1921 Dr Baratta was assistant physician at the Morrisania Hospital Outpatient Department He was a member of the Bronx County and New York State Medical Societies and the American Medical Association

Philip L Bereano, M D, seventy, of New York City, died May 22 in St Luke's Hospital, after a brief illness Born in Rumania, Dr Bereano received medical degrees from the University of Bucharest in 1905 and the Long Island College Hospital Medical School in 1909 At one time he had been examining physician for approximately forty Rumanian-American organizations and had served on the staffs of the Lebanon, Morrisania, and German Polyclinic Hospitals Dr Bereano was a founder and member of the medical staff of the Jewish Home for Convalescents, Grandview-on-Hudson

Francis A. Birch, M D, of White Plains, died at his home on May 10 at the age of seventy-one A graduate in 1905 from the New York Homeopathic Medical School, Dr Birch interned at the Metropolitan Hospital, New York City, and opened his practice in White Plains in 1907

Edwin Crosby Chamberlin, M.D, seventy-nine, of Brewster, died on May 23 He received his medical degree in 1894 from the College of Physicians and Surgeons, Columbia University, and retired several years ago from his general practice of medicine

Gerhard Hecht, M D, of Union, died on May 2 Dr Hecht received his medical degree in 1925 from the Friedrich Wilhelm University of Berlin, Germany He was a member of the Broome County and New York State Medical Societies, and the American Medical Association

Roy Biggs Henline, M D, of New York City and Bronxville, died on May 23 at the New York Hospital after an illness of three weeks He was fifty-four Dr Henline was graduated from the Northwestern University Medical School in 1919 and served his internship at the Michael Reese Hospital in Chicago, after which he was a resident physician at New York Hospital He opened his practice in New York City in the early 1920's and was approved as a specialist in urology upon the foundation of the American Board of Urology in 1935

Dr Henline was attending surgeon and urologist for the James Buchanan Brady Foundation at New York Hospital and director of urology at Sydenham Hospital He was also consulting urologist for St Luke's Hospital, Newburgh, the Yonkers General Hospital, and the Mount Vernon Hospital In 1939 Dr Henline served as chairman of the Special Committee for Medical Information Service for World's Fair visitors He was chairman of the New York County Medical Society's committee on hospitals and dispensaries in 1938 and chairman of the committee on medical economics in 1939 In 1946 he became president of the New York County Medical Society, and in his inaugural address strongly opposed legislation for national compulsory health insurance

Dr Henline was active in planning medical aid for veterans after World War II He was a director of the Associated Hospital Service, a founder of the United Medical Service, and a Fellow of the New York Academy of Medicine and the American College of Surgeons He was a member of the American Urological Association, the New York County and State Medical Societies, and the American Medical Association

Alexander Leon Louria, M D, fifty-nine, of Brooklyn, died May 22 at the Jewish Hospital of Brooklyn after an illness of several months A native of Moscow, Dr Louria came to the United States when he was a year old He was graduated from the College of Physicians and Surgeons, Columbia University, in 1913, and in 1926 joined the staff of the Long Island College of Medicine as clinical professor of medicine Dr Louria was attending physician at the Jewish Hospital of Brooklyn, a director of the American Jewish Physicians Committee, a former director of the Brooklyn Federation of Jewish Charities, a Diplomate of the Society of Internal Medicine, and a member of the Williamsburg Medical Society, the Kings County and New York State Medical Societies, and the American Medical Association

Adelaide Mills, M.D, of St. Albans, died on January 21 at the age of eighty-eight Dr Mills received her medical degree in 1903 from the New York Eclectic Medical College

Edward Lord Mulford, M D, of Ithaca, died on May 13 A graduate of the Yale University School of Medicine in 1931, Dr Mulford was senior tuberculosis physician at the Hermann M Biggs Memorial Hospital in Ithaca. He was a member of the Tompkins County and New York State Medical Societies and the American Medical Association

Louis Michael Palermo, M.D, forty-seven, Bronxville, died on May 8 at Mount Sinai Hospital, New York City Dr Palermo was graduated from the New York Homeopathic Medical College in 1928 He was associate surgeon at the Metropoltan Hospital and assistant attending surgeon at the Flower and Fifth Avenue Hospitals, in New York City A Fellow of the American College of Surgeons, Dr Palermo was a member of the New York County and State Medical Societies and the American Medical Association

Nathan Israel Slutsky, M D, of Brooklyn, died on May 13 at the Brooklyn Jewish Hospital at the age of sixty-four Dr Slutsky was graduated from the Cornell University Medical College in 1907 and interned at Sydenham Hospital before opening his practice in Brooklyn He was attending surgeon in urology in the Beth Moses Division of Maimonides Hospital, Brooklyn, and a Fellow of the International College of Surgeons Chairman of the board of the Doctors Club of Brooklyn, Dr Slutsky was a member of the Kings County and New York State Medical Societies and the American Medical Association

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MEDICAL NEWS

Army Needs Public Health Officers

THE Department of the Army is urgently in need of Public Health Officers to serve in a civilian capacity with the occupation forces in Japan These positions, which involve supervision of Japanese prefecture (state) health departments in all phases of preventive medicine and medical care programs, offer an excellent opportunity for broad experience in public health

Minimum acceptable qualification requirements are a degree in medicine plus one year internship Experience in public health is desirable but is not mandatory

The salary for these positions is $6,235.20 per annum plus 10 per cent post differential with quarters provided at no cost to the employe Individuals selected for appointment must agree to remain a minimum of two years Transportation is furnished to and from Japan Dependents may join the employe in approximately six to eight months

Interested applicants may make formal application by submitting Civil Service Commission Standard Form 57 to the office of the Secretary of the Army, Washington 25, D C Forms may be obtained from any Class A Post Office

Adult Heart Educational Program

THE New York University-Bellevue Medical Center will present two short courses in cardiovascular diseases for general practitioners as part of the Adult Heart Educational Program being conducted by the New York State Department of Health and the Medical Society of the State of New York. The New York City Department of Health is also acting as a sponsor for courses being given in New York City These courses are designed to assist the general practitioner in the management of his patients with diseases of the heart and peripheral vascular system by bringing him up to date regarding recent developments in diagnosis and treatment

The first course will be offered by the New York University College of Medicine at Bellevue Hospital and will run for three days beginning Monday, June 20, 1949 The other course will be offered at the New York University Post-Graduate Medical School, 356 Second Avenue, New York, and will run for four days beginning Monday, June 27

Physicians interested in either course should advise The Recorder, New York University Post-Graduate Medical School, 356 Second Avenue, New York, stating which course they desire and also whether they would accept the other if the first is already filled. A registration fee of $3 00 should accompany the letter Checks should be made payable to New York University The registration fee will be returned to applicants who cannot be accepted because of filled quotas

The New York State Department of Health will provide fellowships for all accepted students to cover the tuition fees in full. In addition, the Department will provide a stipend of $10 per day to cover travel or living expenses to those students living 25 miles or more from the school

Lectures at the New School for Social Research

FOUR Nobel prize winners and other leaders in the field of biochemistry and related sciences are scheduled to lecture at the New School for Social Research next fall, Dr Bryn J Hovde, president of the New School, has announced Their lectures are part of a greatly expanded program in science developed at the New School which includes a group of six courses on biochemistry offered as a public service and without fee and given jointly by the New School and the Institute for Muscle Research under the direction of Dr Albert Szent Gyorgyi, distinguished Hungarian scientist

Dr Szent Gyorgyi and the group from the Institute for Muscle Research which he heads have been arriving in this country since last fall from Hungary at the invitation of the New School The Institute is currently conducting research at Woods Hole, Massachusetts, centering in the study of muscle, physics of the living state, and study of blood

Besides Dr Szent Gyorgyi, who won the Nobel prize in medicine and physiology for the discovery of Vitamin C and fumaric acid catalysis, 1937, the other Nobel prize winners who will lecture at the New School are the outstanding scientist, Dr Otto Warburg, of the Institute for Muscle Research, who received the Nobel prize in medicine in 1931 for discovering the character and mode of action in the respiratory ferment, Dr Otto Loewi, now research professor of pharmacology, New York University College of Medicine, who won the Nobel prize in 1936 with Sir Henry H. Dale for discoveries in the field of chemical transmission of nerve impulses, and Dr Ottl Meyerhof, research professor in physiology, University of Pennsylvania, who shared the Nobel prize in 1923 with Dr Archibald V Hill and who established the correlation between the consumption of oxygen and production of lactic acid in muscle

The courses, which run from seven to sixteen weeks each, are of two kinds The first two, "Dynamics of Living Things," and "Dynamics of Muscle as a Living System," are addressed primarily to the intelligent layman, and it is in the first of these courses that the Nobel prize winners and other leaders in the field will appear The remaining courses are designed more expressly for members of the medical profession and other scientists These courses include "Biochemistry of Muscle," "Blood and Some Aspects of Its Functions," "Elementary Introduction to Quantum Mechanics and Some Biological Applications," and "Quantum Chemistry and Its Biological Applications"

Besides those already mentioned these speakers

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include Drs Robert Chambers, research professor of biology, New York University, Leonor Michaelis, Rockefeller Institute for Medical Research, DeWitt Stetten, Michael Heidelberger, professor of immunochemistry, College of Physicians and Surgeons, Columbia University, Homer Smith, professor of physiology, New York University College of Medicine, and Ernst Mayr, curator, Whitney-Rothschild Collections, American Museum of Natural History

Three ranking scientists, Dr Andrew Paul, Dr Ephraim Shorr, and Dr Harold G Wolff, join Dr Kalman Laki, Dr Stephen Rath, and other members of the staff of the Institute for Muscle Research in giving the course, "Blood and Some Aspects of Its Functions" Dr Paul is president of the American Academy of Allergy, Dr Shorr is associate professor of medicine and Dr Wolff is professor of neurology and psychiatry at Cornell University Medical School Dr Laki is a biochemist, and Dr Rath a specialist in translating laboratory methods into mass production

Special topics to be discussed in the course especially designed for scientists under the heading of "Biochemistry of Muscle" include the structure of muscle and the structure of sarcolemma, utilization of energy in enzymatic and synthetic processes, conditions of thermodynamic equilibrium and the energy relations in muscle fibers, and a thermodynamic explanation of muscle contraction The course, "Blood and Some Aspects of Its Functions," will discuss the fundamental biochemistry of blood functions and certain related clinical manifestations of body disturbances Other topics are the mechanism of blood clotting, the general biological aspects of blood functions, the histamine theory of allergy, hemorrhagic and traumatic shock, experimental and human hypertension, and prognosis and dietary v surgical treatments "Quantum Chemistry and Its Biological Application" among other topics will discuss the application of wave mechanism to chemistry and the chemistry and structure of proteins

For further information address the New School at 66 West 12th Street, New York 11, New York.

MEDICALLY SPEAKING—

The New Israeli Medical School—The official opening of the Hebrew University-Hadassah Medical School was marked on May 17 by ceremonies both in Jerusalem and New York City, at which prominent representatives of government, public health agencies, and medical schools participated In Jerusalem temporary buildings will serve until the new structures to be erected on Mt Scopus are ready for occupancy The Medical School is the first institution of its kind in the new State of Israel, and it will also serve as a center for research in the diseases prevalent in the Near East—trachoma, malaria, tuberculosis, and enteritis The creation of a school of high rank is an indispensable basis for improved health work, according to Dr Herman E Hilleboe, New York State Commissioner of Health, in his greeting to the new medical school

Official Resolutions Against Compulsory Health Insurance—It has been announced through the office of the National Education Campaign of the American Medical Association that 616 organizations are on record as having passed formal resolutions in opposition to compulsory health insurance This list includes not only state and county medical societies from all parts of the country, but women's auxiliaries, clubs, businessmen's organizations, and many others The listing undoubtedly will be expanded when people get the facts about compulsory health insurance and how serious would be the results of its imposition More of this effort is essential

Study on the Industrial Physician—At a recent meeting of the Louisville, Kentucky, section of the American Academy of General Practice, Dr Leonard J Goldwater, professor of industrial hygiene at Columbia University, told the Academy that if a study just completed by Columbia University's School of Public Health is a criterion, the plant doctor plays a vital role in the prevention and early diagnosis of disease among production workers

The study reveals that in two comparable industrial plants in New York City, the plant which maintains an industrial physician had more than twice as many of its employes visiting family physicians during a year's time as did the plant which does not keep a doctor on its rolls

Conducted by a group of investigators headed by Dr Goldwater and Dr Meyer Rosenblum, also of Columbia, the study shows that the plant with a physician in attendance referred on to family doctors 17 per cent of the plant personnel, as contrasted with the nonmedical service factory in which only 7 3 per cent of its employes visited their doctors

Increase in Tuition Fees—In a recent statement by Dean Currier McEwen of the New York University College of Medicine, an increase in the tuition fees for the College was announced, as follows "Beginning with the academic year, 1949-1950, the New York University College of Medicine will increase its tuition fee from $650 to $750 Although the new rate is in line with the charges now being made by other leading medical schools, the University has delayed making this increase as long as possible It has become impossible for the University to carry the increasing annual operating deficit to as full an extent as it has in recent years, and there remained no choice but to follow the example of many other medical colleges and increase tuition"

Receives Alumni Honor—Among the six alumni who received the New York University Alumni Meritorious Service Award for 1949 for "distinguished service to the University," was Dr Ralph L. Dourmashkin, a graduate of the Medical College in 1915 The group were guests of honor at the annual medallion dinner on May 24

Longevity and Mortality of Physicians—The Metropolitan Life Insurance Company announces an offer, without charge and on a permanent basis if desired, of a limited number of exhibits entitled "Longevity and Mortality of Physicians" This material contains the results of a study showing what the men and women of the medical profession have accomplished in protecting their own health A limited number of descriptive brochures is also avail-

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International and Fourth American Congress on Obstetrics and Gynecology—The Scientific and Educational Exhibit Committee of the International and Fourth American Congress on Obstetrics and Gynecology, under the chairmanship of Dr John Parks of Washington, D C , and the Committee on Motion Pictures, with Dr Archibald D Campbell of Montreal, Canada, as chairman, have completed preliminary plans for their respective sections of the meeting and are ready to issue application blanks for space and time These blanks are designed to facilitate the work of the committees in selecting and presenting exhibits and films of the greatest value and to make it easy for the applicants to present a complete description of their proposed displays They will be sent on request by the business office of the American Congress at 24 West Ohio Street, Chicago 10, Illinois, and, when completed, go directly to the chairman of the committee involved

The members of the Scientific and Educational Exhibit Committee working with Dr Parks are Dr Miguel V Falsia of Buenos Aires, Sir Eardley Holland of London, Dr Mortimer N Hyams of New York, Dr Alice F Maxwell of San Francisco, Dr Lawrence M Randall of Rochester, Dr Jorge de Rezende of Rio de Janeiro, Dr Erik Rydberg of Copenhagen, Dr Donald G Tollefson of Los Angeles, and Dr Frank E Whitacre of Memphis

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Plans for the holding of the Congress at the Hotel Statler, New York City, from May 14 to 19, 1950, are progressing satisfactorily An important program of scientific papers and exhibits is being developed, and a large attendance is likely For further information apply to the headquarters office, 24 West Ohio Street, Chicago 10, Illinois

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NECROLOGY

[Continued from page 1472]

William Henry Specht, M D , sixty-seven, who retired in 1947 after practicing in New York City for many years, died on May 19 of a heart attack while on a fishing trip in Canada A graduate of Cornell University Medical College in 1906, Dr Specht had his office in New York City before retiring two years ago to live in Germantown He was formerly a member of the New York County and State Medical Societies and the American Medical Association

Charles Francis Spencer, M D , of Ossining, believed to be the oldest alumnus of New York University Medical School, died on May 23 at the age of ninety-two Dr Spencer was graduated from New York University in 1882, after having completed a three-year medical course in two years After leaving college he joined the staff of Manhattan State Hospital on Ward's Island, as assistant superintendent, and then served with the New York City Health Department until 1912 as head of the sanitary inspection division His chief duty with the department was the suppression of epidemics, and he received considerable attention in his fight against smallpox He practiced medicine in New York City before his retirement

Randolph West, M D , fifty-eight, died on May 20 at his home in the Bronx A graduate of the College of Physicians and Surgeons, Columbia University, in 1917, Dr West interned at Presbyterian Hospital and did graduate work in chemistry at the University of Chicago In 1922 he returned to Presbyterian Hospital, where he was attending physician, and joined the Columbia Medical School's faculty as professor of medicine

As a specialist in internal medicine for twenty-seven years, Dr West devoted much effort to the study of anemia and, in 1942, after years of independent research, joined a team of chemists and biologists seeking the therapeutic element which checks pernicious anemia. The element was finally isolated in 1947 as Vitamin B_{12} and Dr West was the first to demonstrate its efficiency

For many years Dr West was editor of the *Journal of Clinical Investigation* and the author of many scientific papers He was chairman of the anti-anemia board of the U S Pharmacopeia and a Fellow of the American College of Physicians Dr West was a member of the Association of American Physicians, the American Society of Clinical Investigation, the New York Academy of Medicine, the Society for Experimental Biology and Medicine, the Harvey Society, the New York County and State Medical Societies, and the American Medical Association

For his work in developing Vitamin B_{12} Dr West was to have received the first Goldberger Award of the Nutrition Foundation, given for outstanding contributions to clinical nutrition

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Increase in membership during the period was 198,426, making a total membership of 1,737,685 This increase exceeds by 68,852 the corresponding period a year ago Benefits to members amounted to $1,879,745, or an increase of $690,000 over the same period in 1948

The following tables reflect detailed progress of each plan as well as over-all totals

TABLE 1 —MEMBERSHIP PROGRESS—QUARTER ENDING MARCH 31 1949

By Types of Contract	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only							
March 31 1949	913 867	154 168	115 846	3 534	77 021		1 264 436
December 31 1948	811 058	138 086	103 963	3 373	68 653		1 132 033
Increase	102 809	15 182	5 883	161	8 368		132 403
Surgical In Hospital Medical							
March 31 1949	328 514	20 032				54 957	403 503
December 31 1948	273 714	20 885				51 699	346,298
Increase	54 800	—853				3 258	57,205
Surgical Medical (Home Office and Hospital)							
March 31 1949	52 158			17 477			69 635
December 31 1948	44 026			16 733			60 759
Increase	8 132			744			8 876
Medical Expense Fund							
March 31 1949	111						111
December 31 1948	169						169
Decrease	—58						—58
Grand Totals							
March 31 1949	1 394 650	174 200	115 846	21 011	77 021	54 957	1 737 685
December 31 1948	1 128 967	159 871	109 963	20 106	68 653	51 699	1 539,259
Increase	165 683	14 329	5 883	905	8,368	3 258	198,426

NOTE Medical Call Riders available in the Utica plan increased by 3 601 in the first quarter ending March 31 1949

TABLE 2 —COMPARATIVE STATEMENT OF MEMBERSHIP INCREASE QUARTERS ENDING MARCH 31 1948 AND 1949

By Types of Contract	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only							
March 31 1949	102 809	15 182	5 883	161	8 368		132 403
March 31 1948	37 485	9 773	5 014	396	4 817		77 485
Surgical In Hospital Medical							
March 31 1949	54 800	—853				3 258	57 205
March 31 1948	36 479	—702				7 239	43 016
Surgical Medical (Home Office and Hospital)							
March 31 1949	8 132			744			8 876
March 31 1948	8 989			208			9 197
Medical Expense Fund							
March 31 1949	— 58						— 58
March 31 1948	—124						—124
Grand Totals							
March 31 1949	165 683	14 329	5 883	905	8,368	3 258	198 426
March 31 1948	102 829	9 071	5 014	604	4 817	7 239	129 574

NOTE Medical Call Riders available in the Utica plan show comparative increases as follows March 31 1949 3 601 and March 31 1948 5 463

[Continued on page 1482]



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[Continued from page 1480]

TABLE 3 —Comparative Statement of Earned Premium Incurred Claim and Administrative Expenses for Quarters Ending March 31 1948 and 1949

	New York	Buffalo	Utica	Rochester	Albany	Syracuse	Totals
Earned Premium Income							
March 31 1949	$2 190 798	$292 460	$226 371	$122 113	$116 201	$56 463	$3 004 406
March 31 1948	1 386 145	223 612	188 714	77 889	56 669	42 981	1 974,010
Increase	$ 804 653	$ 68,848	$ 39 657	$ 44,224	$ 59 532	$13 482	$1 030,396
Claim Expense							
March 31, 1949	$1 359 715	$232 493	$175 589	$ 86 623	$ 91 580	$47 936	$1 993 916
March 31 1948	794 397	151 851	147 198	45 762	41,698	32 145	1,213 051
Increase	$ 565 318	$ 80 642	$ 28 391	$ 40 861	$ 49 882	$15 791	$ 780 865
Administrative Expense							
March 31 1949	$ 446,230	$ 25 624	$ 30 844	$ 16 850	$ 12 123	$ 6 710	$ 538,381
March 31 1948	285 037	24 590	26 834	9 774	6,206	5 723	358,164
Increase	$ 161 193	$ 1 034	$ 4 010	$ 7 076	$ 5 917	$ 987	$ 180,217
Claim Expense Ratio to Earned Premium Income							
March 31 1949	62 06	79 50	77 56	70 93	78 79	84 90	66 36
March 31 1948	57 31	67 91	78 83	58 75	73 58	74 79	61 45
Administration Expense Ratio to Earned Premium Income							
March 31 1949	20 37	8 76	13 62	13 79	10 43	11 88	17 91
March 31 1948	20 56	11 00	14 31	12 54	10 95	13 32	17 96

TABLE 4 —Claim Data (Paid Basis)—Year to March 31 1949

Plan Location and Types of Contracts	Number of Claims	Amount	Ratio to Earned Premium	Average Cost per Claim	Claim Incidence per 1 000 Participants per Annum	Average Exposure Participants
New York						
Surgical Expense Indemnity	14 399	$ 904 581	67 95	$62 82	66 4	887 075
Surgical, In Hospital Medical	5 809	319 971	49 39	55 08	76 2	304 754
General Medical	9 689	114 600	56 68	11 82	799 2	48 491
Total	29 897	$1 339 152	61 39	$44 79		
Buffalo						
Surgical	5 404	$ 164 462	71 77	$30 43	148 3	145 687
Surgical, In-Hospital Medical	1 823	40 467	63 91	22 19	354 0	20,598
Total	7 227	$ 204 929	70 07	$28 35		
Utica						
Surgical	5 643	$ 144,891	76 02	$25 67	199 9	112 904
Medical Call Rider	590	11 843	33 08	20 07	47 8	49 306
Total	6 233	$ 156 734	69 23	$25 14		
Syracuse						
Surgical	149	$ 3 753	60 86	$25 19	172 6	3 453
Surgical and Medical	2 694	40 741	81 00	15 12	639 9	17 105
Total	2 843	$ 44 494	78 80	$15 65		
Rochester						
Surgical	1 708	$ 61 357	50 24	$35 92	90 7	75 288
Albany						
Surgical In-Hospital Medical	1 739	$ 73 079	62 89	$42 02	130 4	53,328
Grand Total	49 647	$1 879 745	62 77	$37 86		

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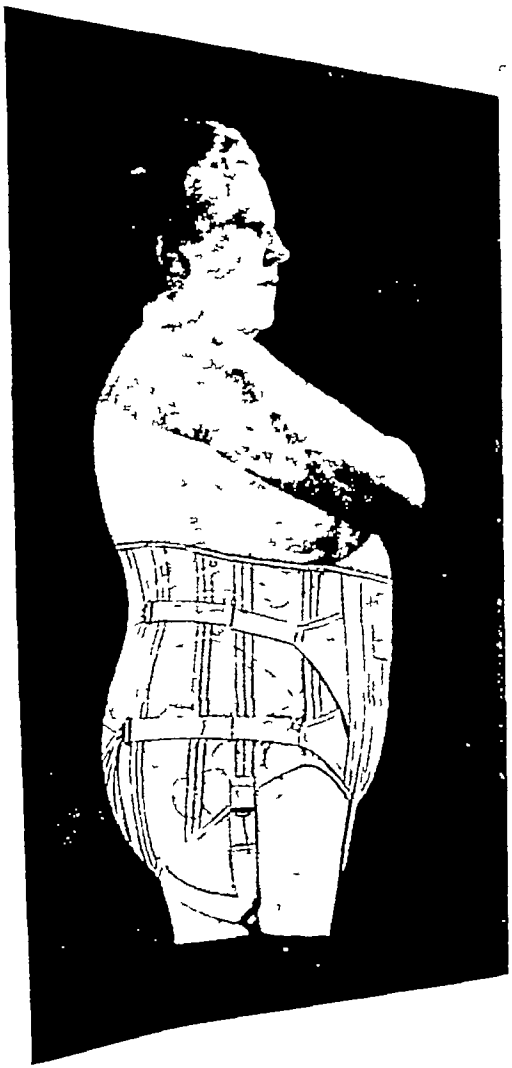
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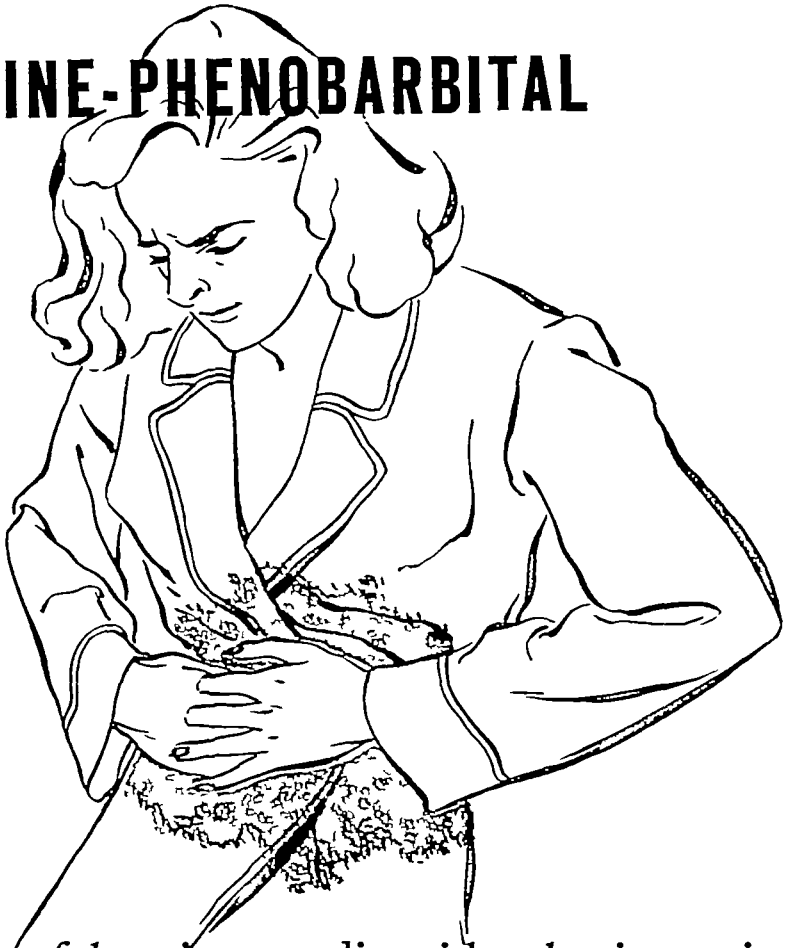
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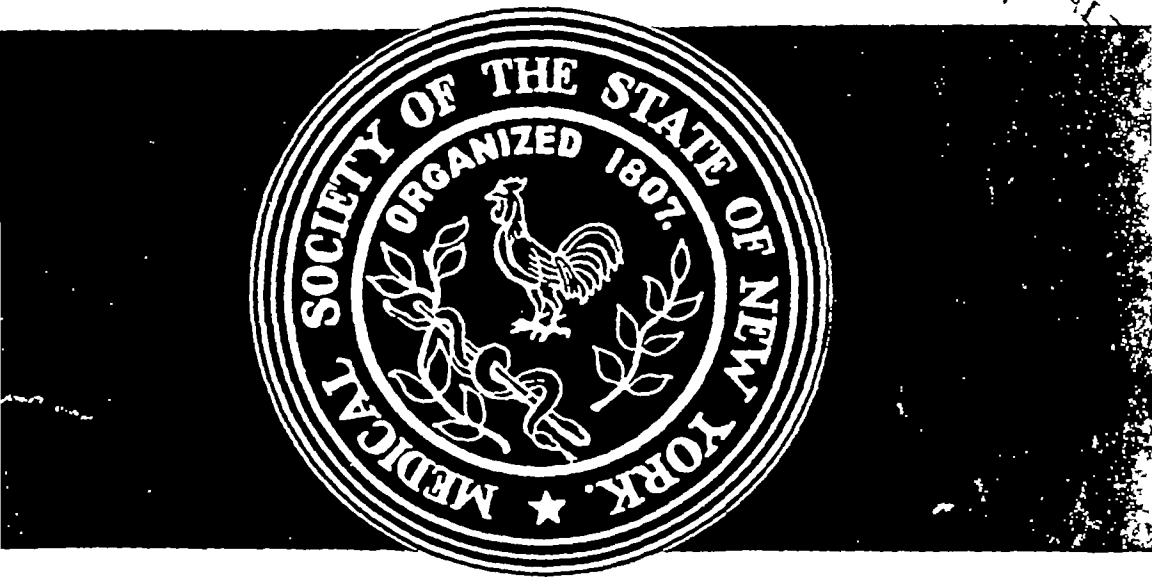
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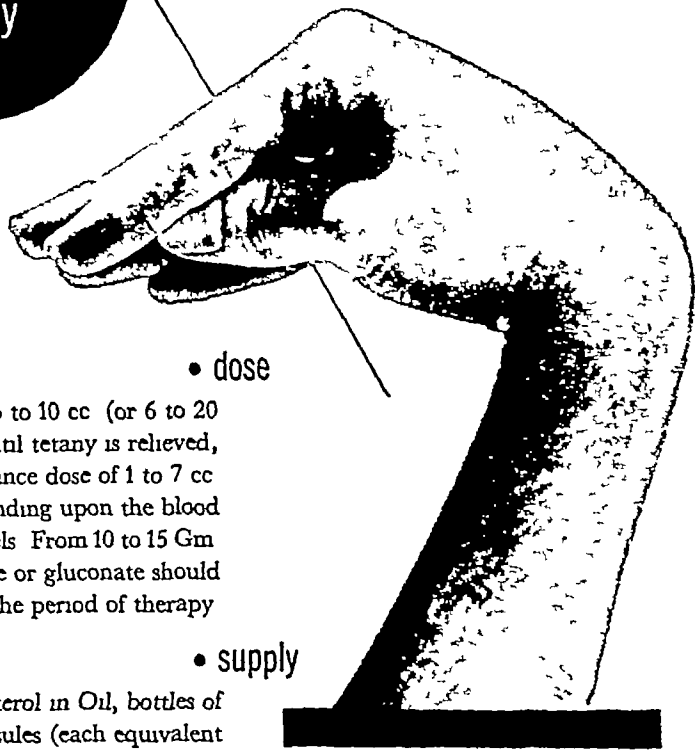
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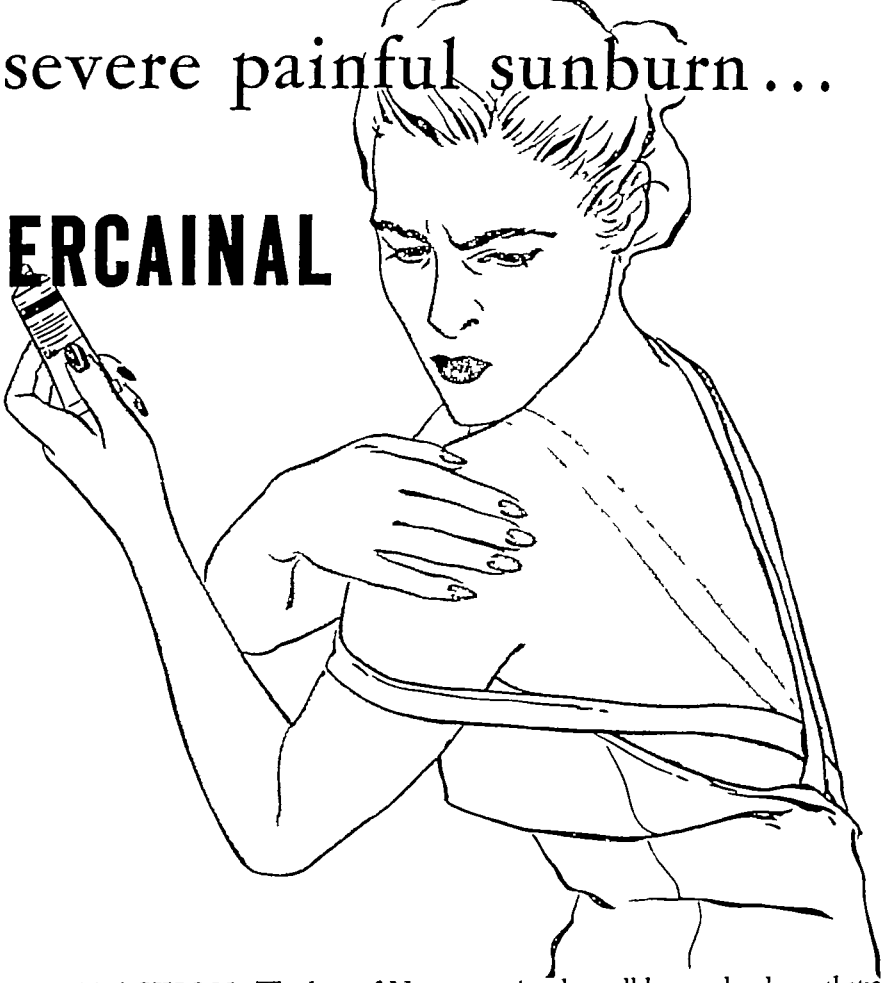
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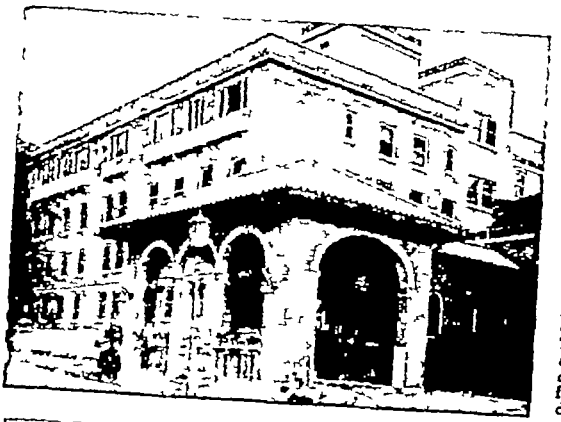
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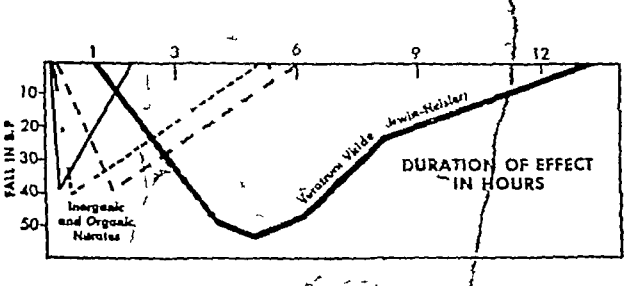
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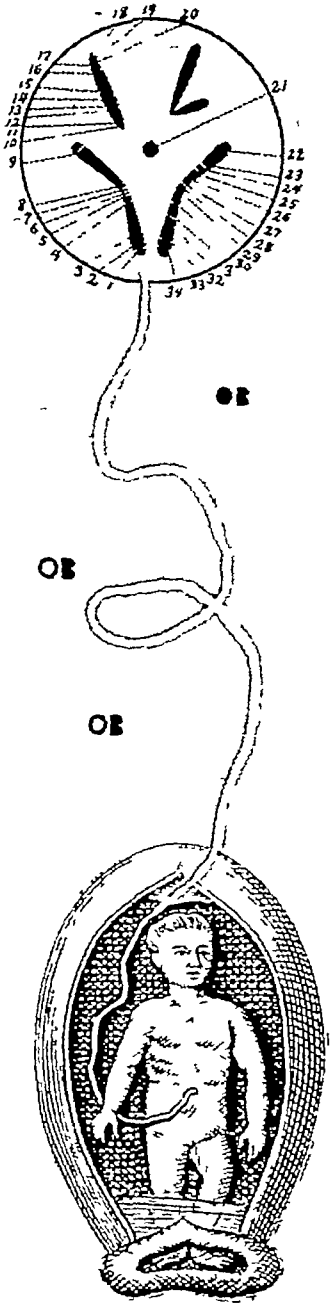
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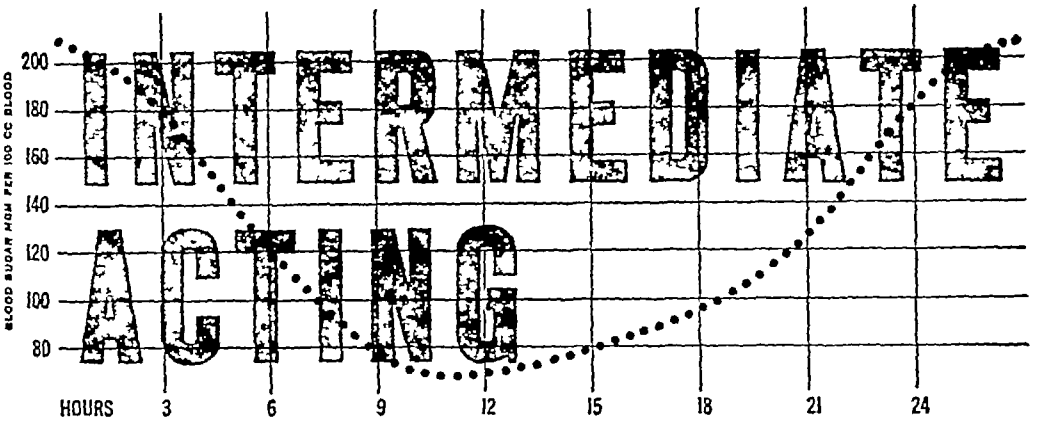
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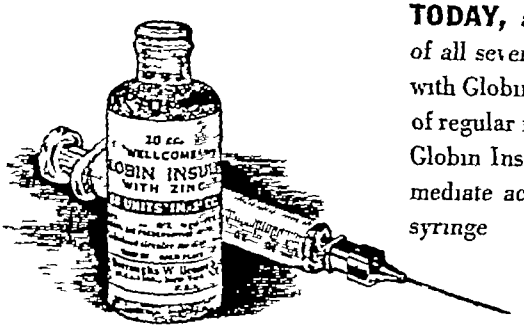
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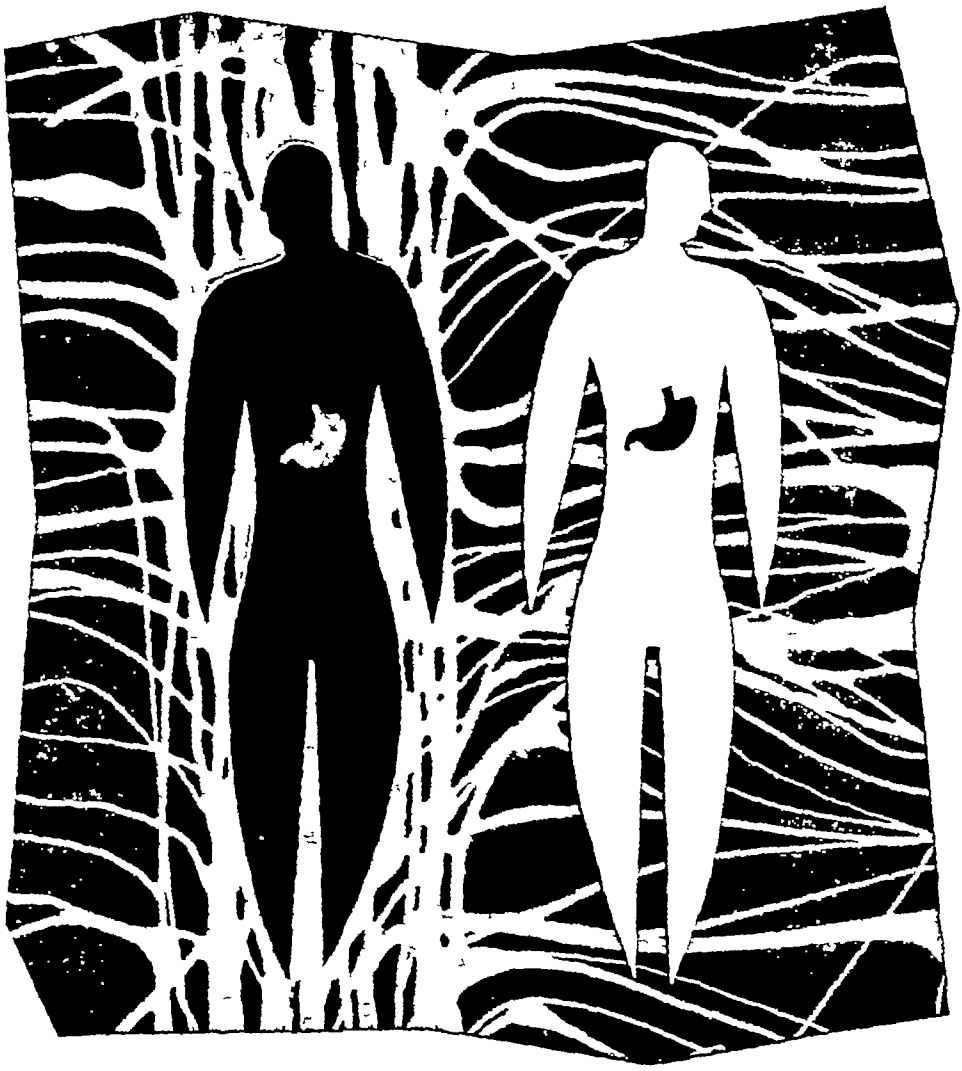
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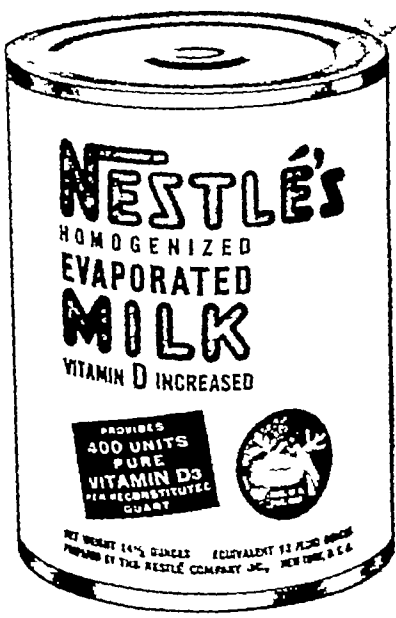
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BRONCHIAL RELAXANT
In Bronchial Asthma, Paroxysmal Dyspnea, Cheyne-Stokes Respiration
TABLETS AMPULS • POWDER • SUPPOSITORIES
H. E. DUBIN LABORATORIES, Inc., 250 East 43rd St., New York 17, N.Y.

CONSTANT INSPECTION for BABY'S PROTECTION



Our inspectors examine every single ten-gallon can of fresh milk as it comes from the dairy, but this is only the beginning of the tests we apply to Nestlé's Evaporated Milk.



From herd inspection to examination of the filled cans, careful controls at every step of production assure you that Nestle's milk is of good quality, uniform in composition, safe for even the tiniest baby

Antirachitic protection is assured by the addition of 400 U S.P units of genuine vitamin D_3 to each pint of Nestlé's milk—the first evaporated milk so fortified.

ACCEPTED

DOCTORS EVERYWHERE KNOW NESTLÉ'S

BURO-SOL POWDER

Readily soluble in water

Buro-sol Solution is therapeutically equivalant to Burows Solution (Liq Al Acet.)

The powder is a convenient method of preparing a solution when needed

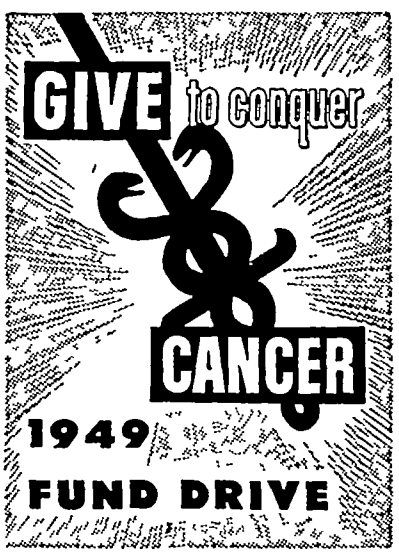
Compresses saturated in Buro-sol Solution prevent a sudden change in the pH value of the skin and will neutralize alkalinity

Applied on inflamed surfaces, weeping eczema, the inflammatory process will be mitigated

DOAK CO., INC.

Cleveland, Ohio

NY 7-49



AMERICAN CANCER SOCIETY

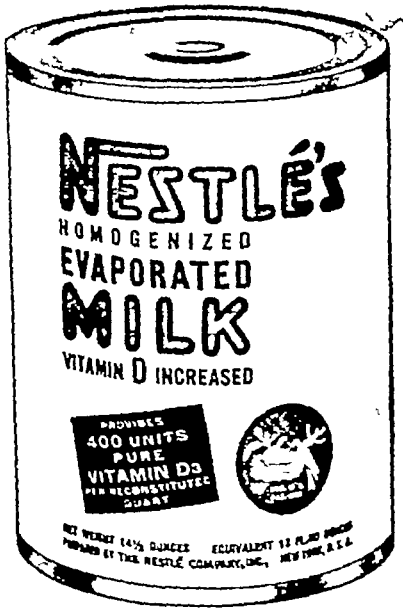
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COUNCIL ON FOODS AND NUTRITION

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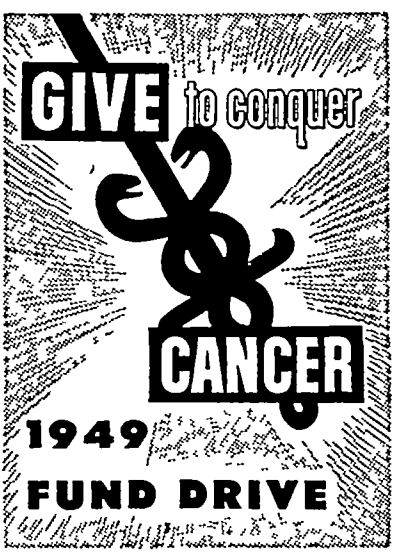
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A good night's rest
A good day's work



Allergic patients get both, with just 4 small doses

Comfort 'round-the clock for your allergy patients Decapryn provides long lasting relief with low milligram dosage

'Symptoms were relieved from 4 to 24 hours after the administration of a single dose of Decapryn—"[1]

'It was found that 12.5 mg could be given during the day with comparatively few side reactions and yet maintain good clinical results—"[2]

prescribe

Decapryn® SUCCINATE

Brand of Doxylamine Succinate

THE LONG-LASTING LOW-DOSAGE ANTIHISTAMINE

12.5 mg tablets, P. R. N. Also available in pleasant tasting syrup especially designed for children (6.25 mg per 5 cc) and 25 mg tablets.

Merrell
1828
CINCINNATI U.S.A.

1. Sheldon J. M. et al: Univ. Mich. Hosp. Bull. 14:13-15 (1948) 2. MacQuiddy E. L.: Neb. State M. J. 34:123 (1949)

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IT IS DEEPLY SATISFYING!

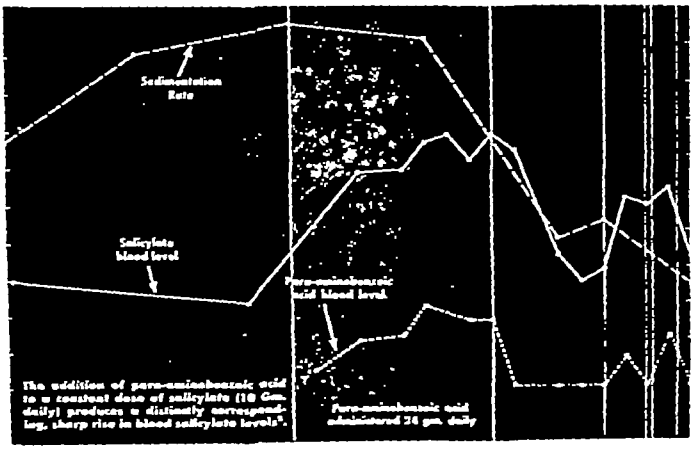
To know that you are helping your aged, needy colleagues and their widows to achieve that vitally important goal—SECURITY By providing beneficiary aid in their own homes and communities, THE PHYSICIANS' HOME is doing just that

CHARLES GORDON HEYD, M.D
President

Make checks payable to

PHYSICIANS' HOME
52 East 66th Street, New York 21





references

1. Belisle, M.: Union Med. Can., 77:392, 1948.
2. Brodie, B. B. et al. J Pharmacol. and Exper Therap., 80 114, 1944.
3. Coburn, A. F Bull. Johns Hopkins Hosp., 73 435 1943
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6. Reid, J Quarterly J Med., 17:139 1948.
7. Rosenblum, H. and Fraser L. E. Proc. Soc. Exper Biol. and Med. 63:178, 1947.

AN IMPORTANT NEW MILESTO

in the Therapy of Arthritic Affections

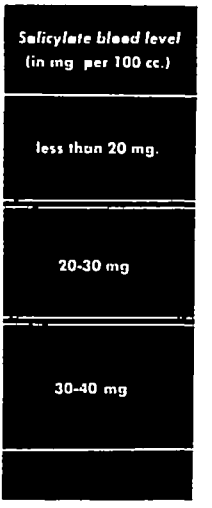
The "cure of [rheumatic fever]", agree most authoritative sources,[2,3,5,6] "depends not only on reaching, but also on maintaining a high plasma salicylate level "[5] The correlation between such blood levels and symptomatic improvement is graphically shown in the table at the right [6]

Pabalate—latest product of Robins' research —now helps to achieve and maintain *higher salicylate blood levels on lower salicylate dosage*

This is made possible by the combination in Pabalate of non-toxic para-aminobenzoic acid with sodium salicylate As visualized in the chart at the lower right,[4] para-aminobenzoic acid (itself an active antirheumatic)[7] manifests a reciprocal action with salicylates when administered concurrently—sharply increasing the blood salicylate levels (under constant salicylate dosage),[1,4] and in turn having its own blood levels effectively enhanced [4]

The clinical significance of this synergistic relationship represents an important advantage in the therapy of arthritic affections Pabalate 'Robins'—a strictly ethical preparation— is available at (or may be secured by) all leading pharmacies

A. H ROBINS CO, INC., RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878



indications Rheumatoid arthritis, acute rheumatic fever, fibrositis, gout, osteo-arthritis.

dosage Two or three enteric coated tablets every three or four hours, without sodium bicarbonate.

formula Each enteric coated tablet contains
Sodium salicylate, U S P (5 gr), 0.3 Gm.,
Para aminobenzoic acid (as sodium salt), (5 gr), 0.3 Gm.

supplied In bottles of 100 and 500 enteric coated tablets.



For high salicylate blood levels on low salicylate dosage—

Pabalate®

Pabalate tablets are enteric coated to prevent gastric irritation and insure optimal toleration



Whittier presents long-acting

CHLOROTHEN

WHITTIER

rothen, Whittier, has been proved by clinical trial to be
ly effective in hay fever, vasomotor rhinitis, urticaria, angio-
otic edema, and other allergic disorders Side-reactions
usually mild and their incidence compares favorably with
of other antihistaminics

o facilitate rapid solution and absorption, and hence
npt action, Chlorothen, Whittier, is issued as *uncoated*
ets of 25 mg each for oral administration One to two
ets every 4 to 6 hours, according to the response, is the
omary dosage range

ackaged in bottles of 100 tablets





Whittier LABORATORIES

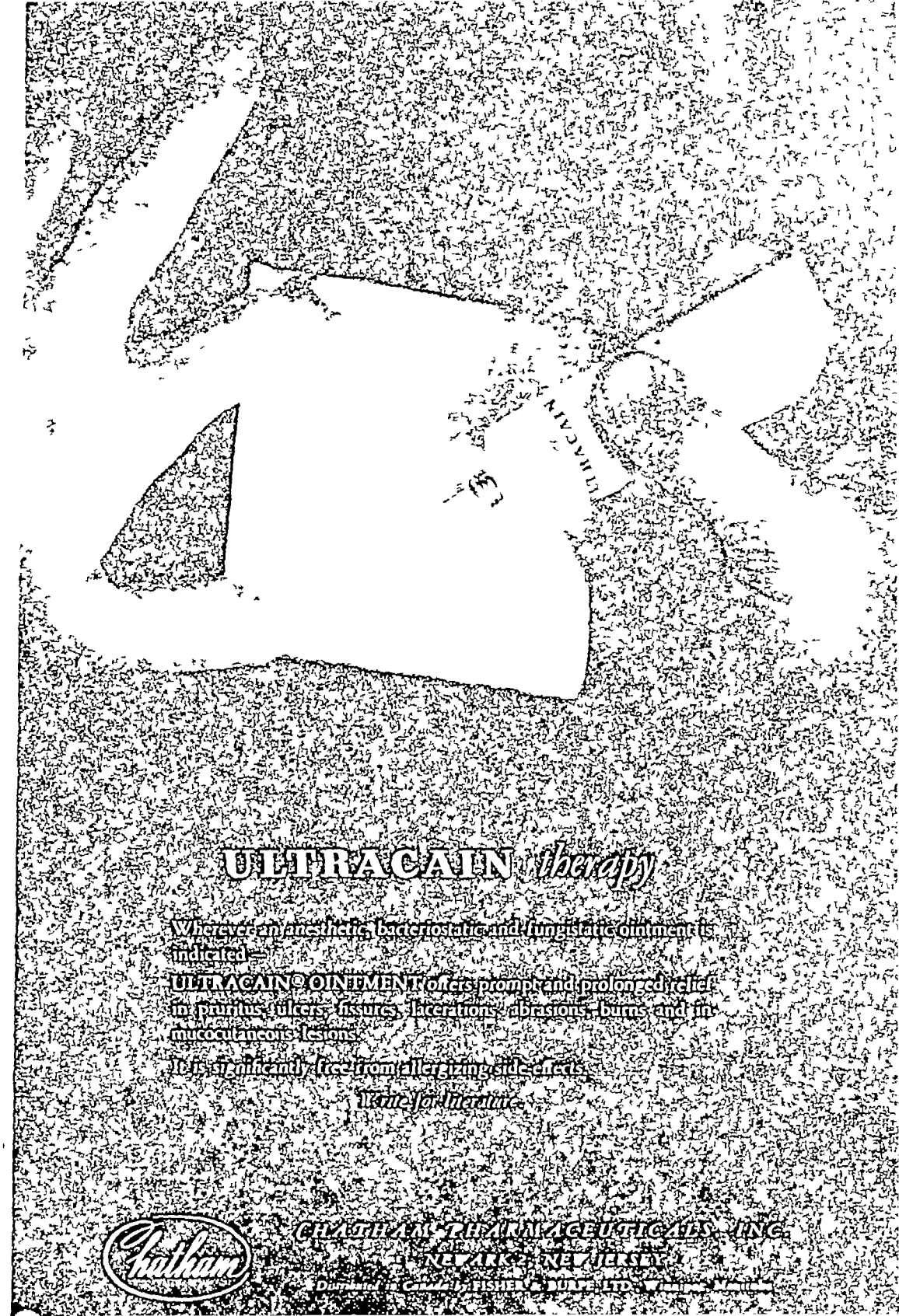
DIVISION NUTRITION RESEARCH LABORATORIES

CHICAGO 30, ILLINOIS



a constant shield in allergy

In the treatment of allergy with antihistaminics it is essential to assure the patient a continuous, uniformly high degree of protection. Too rapid excretion or detoxification of the drug inevitably leads to a fluctuating, unreliable status, alternating between full protection and complete vulnerability. Chlorothen, Whittier, is distinguished pharmacologically by its prolonged action. Clinically, therefore, each dose may be relied upon to maintain a greater protective effect for a longer dosage interval—a constant defensive shield against allergens.



ULTRACAIN *therapy*

Wherever an anesthetic, bacteriostatic and fungistatic ointment is indicated—

ULTRACAIN® OINTMENT effects prompt and prolonged relief in pruritus, ulcers, fissures, ulceration, abrasions, burns and in mucocutaneous lesions.

It is significantly free from allergizing side-effects.

Write for literature.

CHATHAM PHARMACEUTICALS, INC.
NEWARK, NEW JERSEY
Distributed in Canada by FISHER & BURPEE LTD.

MEAT...

And This Protein Era

"Today we are in the protein era "* This terse but meaningful statement, made by an outstanding authority in a recent review on the progress of nutrition, reflects an accomplishment of utmost significance.

This résumé of modern nutrition concepts shows convincingly that the recognition of the vital role of protein in health and disease ranks among the great advances of medicine

The therapeutic use of a high protein dietary has revolutionized the prognostic outlook in many hepatic diseases formerly considered resistant to treatment

The use of high protein dietaries has resulted in a gratifying reduction of surgical morbidity and mortality, made possible by systematic presurgical nutritional build-up of the patient Through this same approach, wound healing and general recovery are greatly promoted

In nephritis and nephrosis, at one time considered absolute contraindications for animal protein in the dietary, the use of protein in liberal amounts can significantly reduce mortality and decidedly improve the clinical condition

The benefits derived from high-protein nutrition in pregnancy and lactation are diversified and far-reaching, embracing both mother and offspring For this reason, a generous extra serving of meat, given daily as a routine measure, has been strongly recommended as a means of improving the health of mother and child

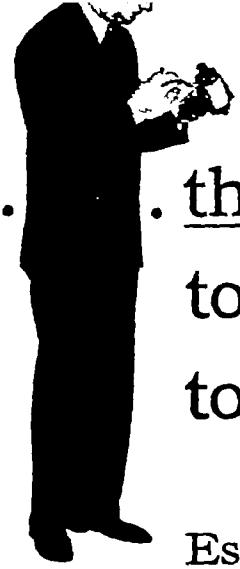
Meat is rightfully regarded as an outstanding protein source It is notably rich in protein The protein of meat is biologically complete, capable of satisfying all protein needs of the body from childhood to old age And, particularly important in disease, the excellent digestibility of meat gives virtual assurance that its protein and other valuable nutrients become available for utilization

*McLester, J S Protein Comes Into Its Own, J A M A *139* 897 (April 2) 1949

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association

American Meat Institute

Main Office, Chicago Members Throughout the United States



. . . . . this is the way to give phenobarbital to children

Eskaphen B Elixir is the ideal phenobarbital preparation for children because
Its fluid form makes it easy to take
Its good taste makes it pleasant to take
Its mild and calming action is supplemented by the tone-restoring effect of thiamine

And this is important

Parents who "know all about phenobarbital"—and might be upset at the idea of giving a "sleeping mixture" to their children—don't know you are prescribing phenobarbital when you write

Eskaphen B Elixir

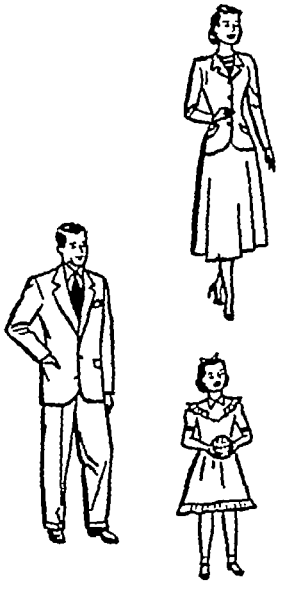
the delightfully palatable combination of phenobarbital and thiamine



Smith, Kline & French Laboratories, Philadelphia

Each 5 cc teaspoonful of ESKAPHEN B ELIXIR contains phenobarbital ¼ gr thiamine 5 mg.





Scabies, until recently regarded as a disease of poverty or uncleanliness, today is known to be found in all walks of life This highly contagious parasitic infestation not infrequently escapes detection, hence the possibility of its presence must always be kept foremost in mind when a red, punctate, inflamed pruritic eruption presents itself

In the eradication of scabies Kwell Ointment, containing 0 5% gamma benzene hexachloride in a vanishing cream base, represents a significant advance in therapy A single course of treatment consisting of one or two applications effects a cure in more than 90% of patients Its action is prompt, positive, and is not burdened by secondary dermatitis or relapse

Kwell Ointment is available on prescription in 2 oz and 1 lb jars at all pharmacies

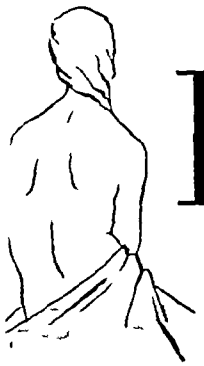
C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION
17 EAST 42nd STREET NEW YORK 17, N. Y

KWELL® OINTMENT

0 5% GAMMA BENZENE HEXACHLORIDE IN A VANISHING CREAM BASE

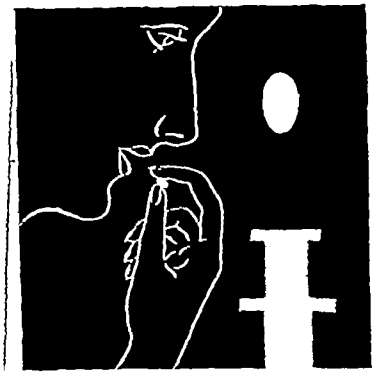
several convenient routes of administration



PROGYNON

(Estradiol U.S.P. XIII)

rapidly effective and well tolerated



Whether injected intramuscularly or implanted subcutaneously, whether swallowed as a tablet or absorbed through the buccal mucosa from POLYHYDROL,† PROGYNON* preparations of estradiol relieve symptoms of estrogen deficiency rapidly and effectively. These convenient forms of PROGYNON may be administered with confidence that they will be well tolerated and will not induce side effects.



PROGYNON B* (Estradiol Benzoate U.S.P. XIII in oil) for intramuscular injection.

PROGYNON DP* (Estradiol Dipropionate in oil) for intramuscular injection.

MICROPELLETS PROGYNON† (crystalline Estradiol U.S.P. XIII in aqueous suspension) for intramuscular injection.

PROGYNON PELLETS (crystalline Estradiol U.S.P. XIII) for subcutaneous implantation.

PROGYNON DH* OINTMENT (crystalline Estradiol U.S.P. XIII) for insunction.

PROGYNON DH* TABLETS (crystalline Estradiol U.S.P. XIII) for oral administration.

PROGYNON BUCCAL TABLETS (crystalline Estradiol U.S.P. XIII in POLYHYDROL) for exceptionally effective buccal absorption.

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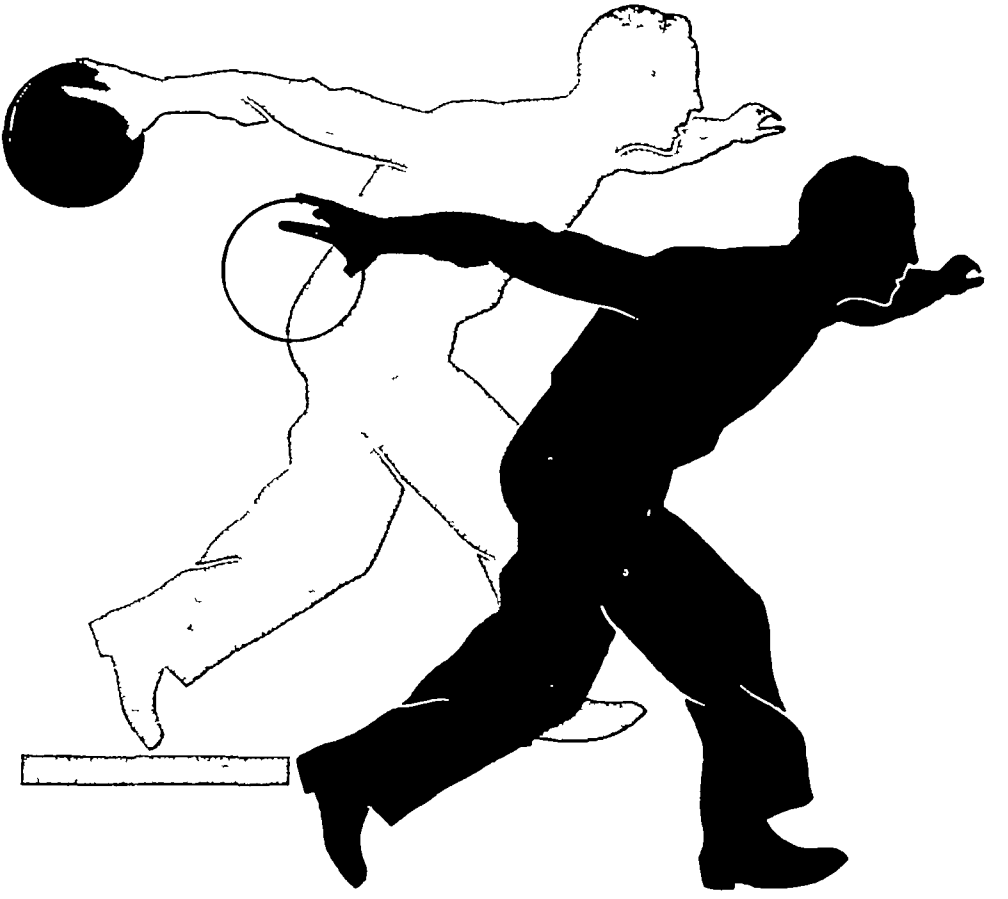
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Schering CORPORATION • BLOOMFIELD, NEW JERSEY

IN CANADA, SCHERING CORPORATION LTD., MONTREAL

PROGYNON

SCHERING



since **1** Optimal body function is dependent on vitamin adequacy,

since **2** Unicap* Vitamins assure economic availability and intake constancy,

therefore **3** Vitamin deficiencies are inexcusable today

Only 2 8¢ a day can help assure vitamin adequacy with

a UNICAP a day

Upjohn
KALAMAZOO 99, MICHIGAN

FINE PHARMACEUTICALS SINCE 1886

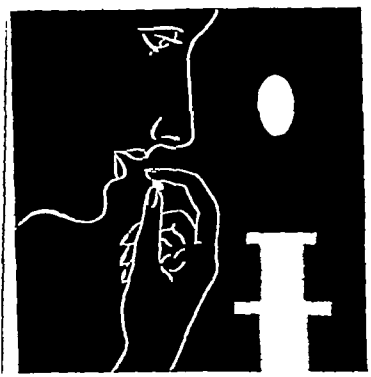
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PROGYNON DP* (Estradiol Dipropionate in oil) for intramuscular injection.

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PROGYNON PELLETS (crystalline Estradiol U.S P XIII) for subcutaneous implantation.

PROGYNON DH* OINTMENT (crystalline Estradiol U.S.P XIII) for insunction.

PROGYNON-DH* TABLETS (crystalline Estradiol U.S.P XIII) for oral administration.

PROGYNON BUCCAL TABLETS (crystalline Estradiol U.S P XIII in POLYHYDROL) for exceptionally effective buccal absorption.

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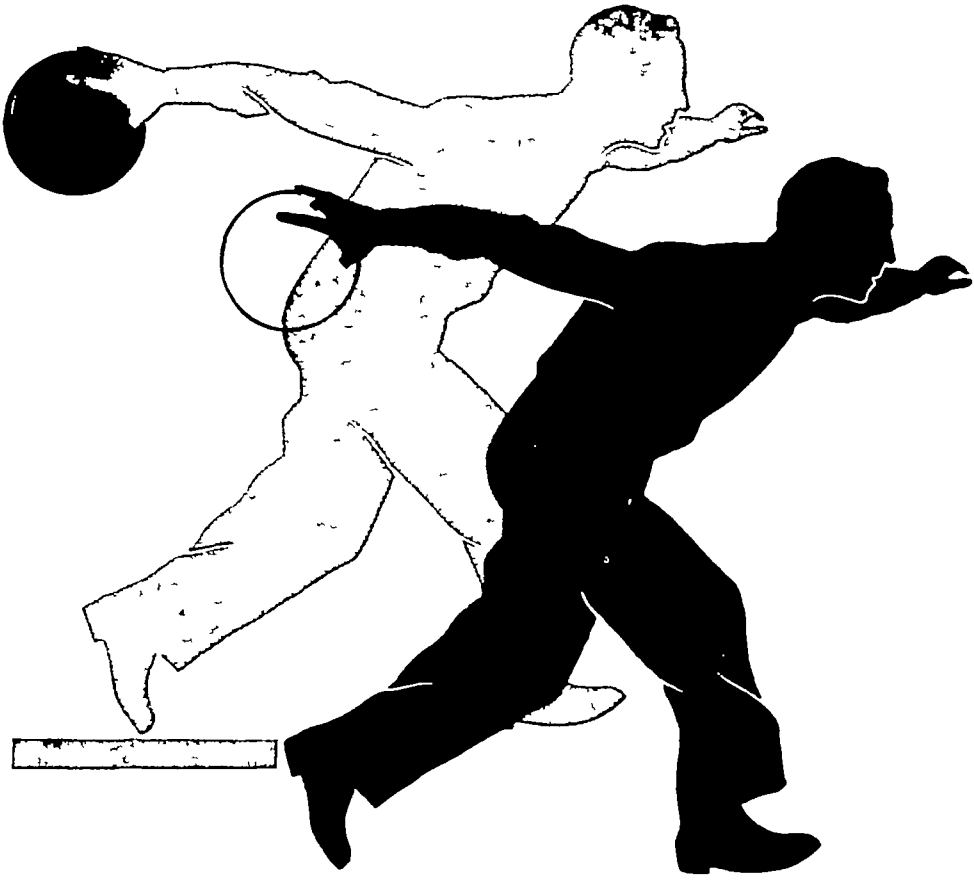
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since **1** Optimal body function is dependent on vitamin adequacy,

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Only 2 8¢ a day can help assure vitamin adequacy with

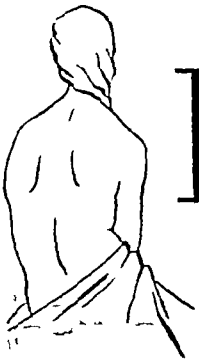
a UNICAP a day

Upjohn
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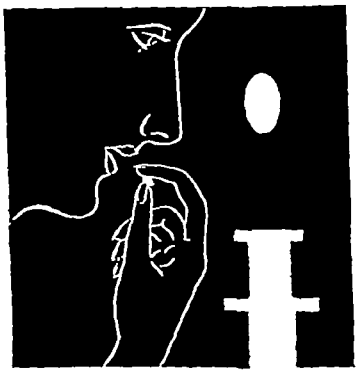
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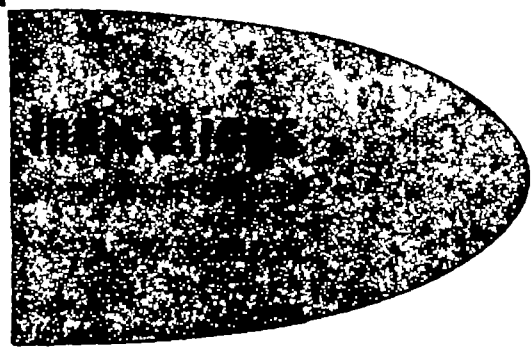
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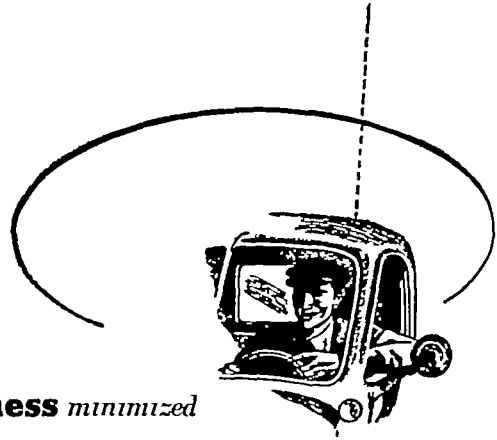
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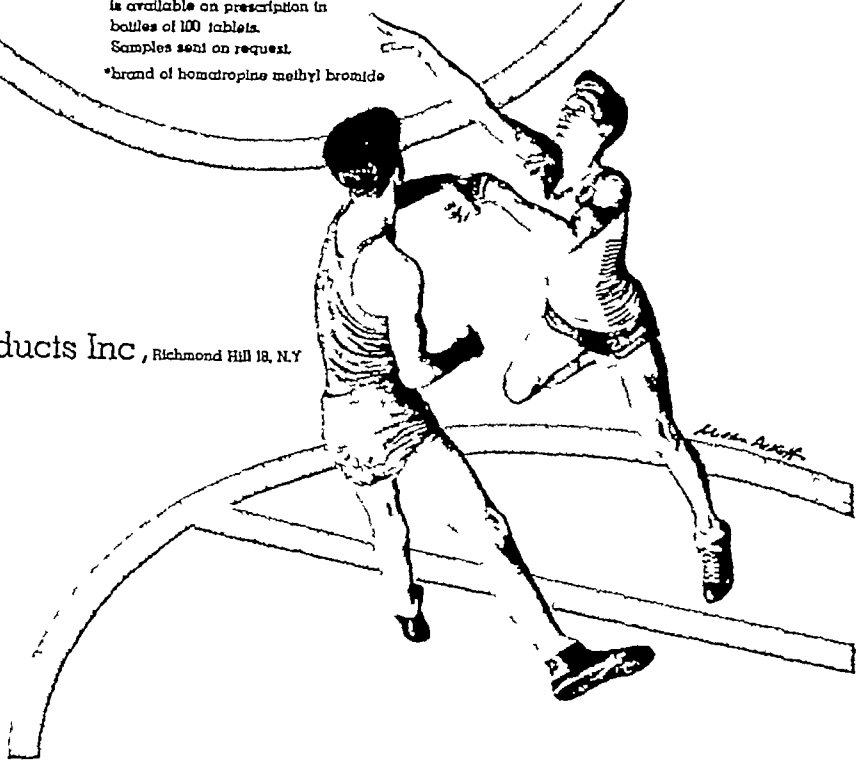
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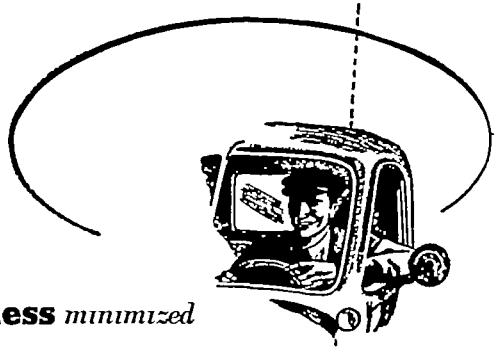


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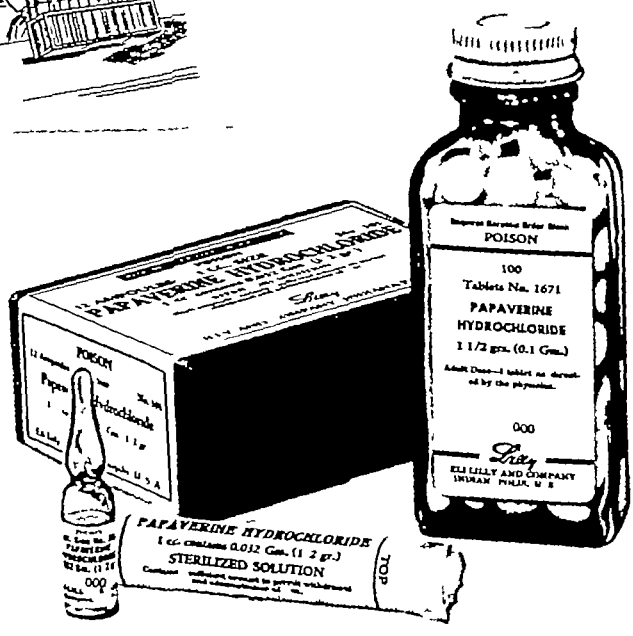
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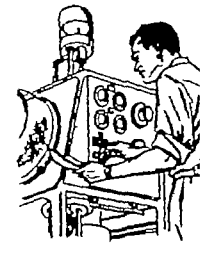
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DRYCO

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The incidence of mild protein deficiencies in children, predisposing toward infections and edema, is reported[1,2] much greater than generally realized. Infant and adolescent requirements—not only for tissue repair and maintenance, but also for growth—are much higher than in adulthood.[3] To insure adequate protein intake in infancy, DRYCO—Borden's high protein infant food—is ideally suited as a basis for formula building. It furnishes *all the essential amino acids*. Its low fat content minimizes gastro-intestinal upsets due to fat intolerance, while its intermediate carbohydrate content lends itself for prescription with or without added carbohydrate. Quickly soluble in cold or warm water, DRYCO contains adequate vitamins A, B_1, B_2 and D, plus essential milk minerals.

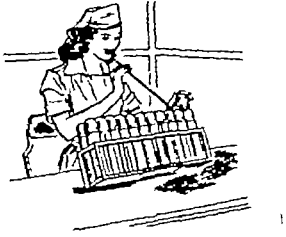
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2. Dodd, K. and Minot, A. S. *J. Pediat.*, 8:432 1936.
3. Sahyun, M. *Am. J. Dig. Dis.* 13:59 1946.

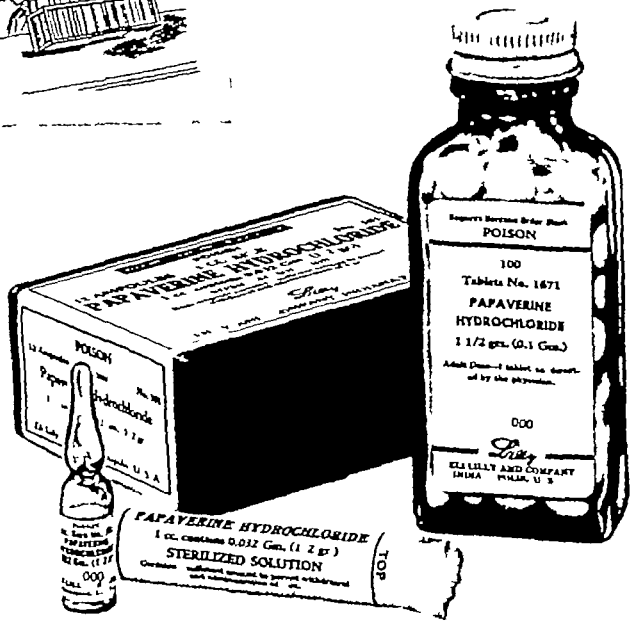
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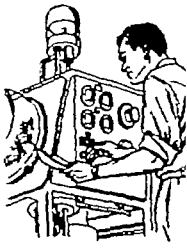
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The "Custom Formula" High Protein Infant Food







Quiets Smooth-Muscle Spasm

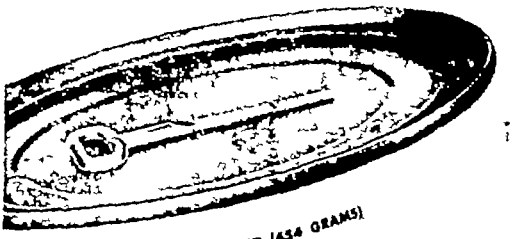
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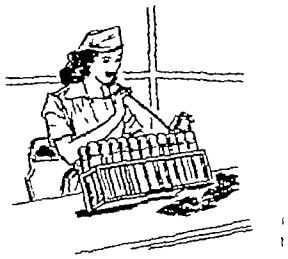
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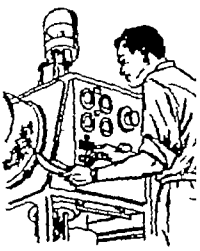
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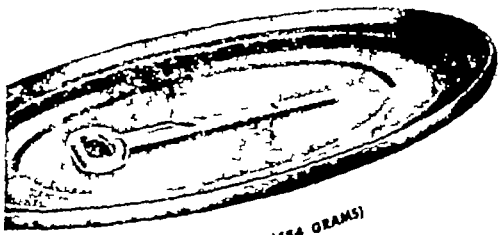
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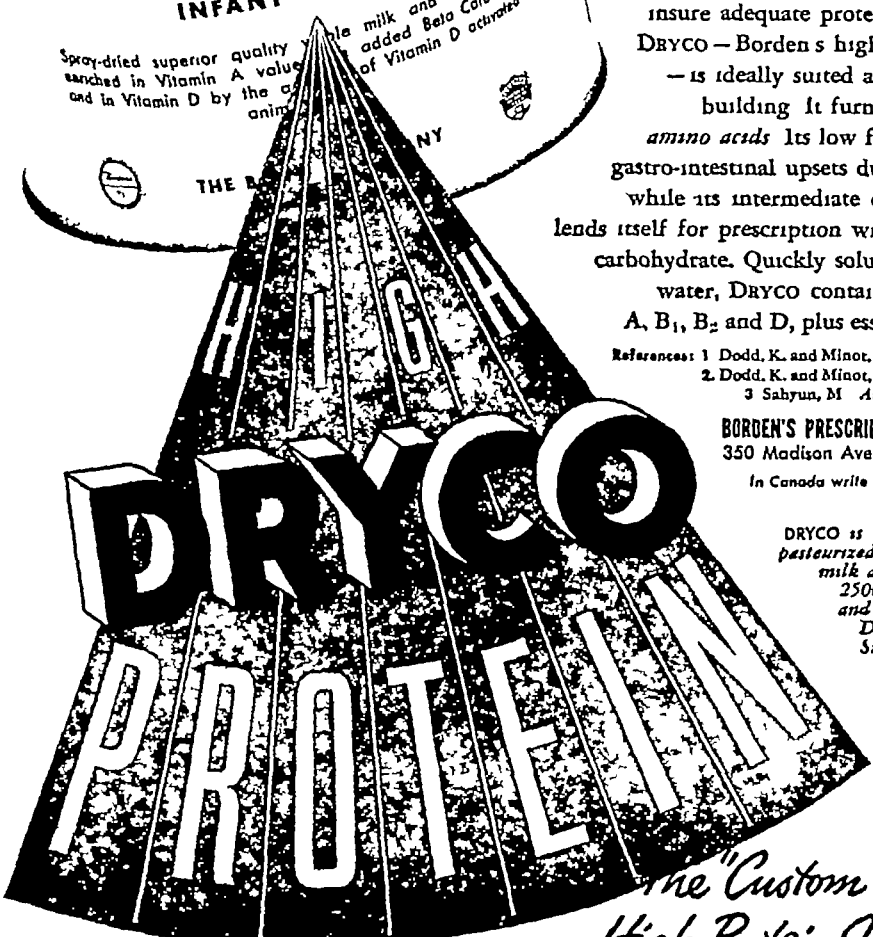
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NEW YORK STATE JOURNAL OF MEDICINE

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Editorials

The Unending Struggle

The apparently ill-advised but persistently hopeful Mr Oscar Ewing, F S A. chief, and his mimetic followers still claim that 325,000 deaths out of the 1,400,000 which occur annually in the United States are preventable "Use of the annual number of deaths as a measure of health progress," says the *J.A M A*, editorially, "is fallacious Obviously this reduction cannot be accomplished in an increasing and aging population, because the total number dying each year in any nation depends on the number of people, their ages, and the death rate per thousand at each age Nor can the annual number of deaths be kept from actually increasing during the coming years "[1]

Surely we are faced with an increasing population and an aging group Twenty years from now the number of deaths in our aging population may well be 1,500,000 to 1,600,000, the length of life doubtlessly will be greater, and the mortality rate for each age will be lower than now Use of the annual number of deaths as a measure of health progress is fallacious "Health progress and the number of deaths each successive year are simply two different ideas," the editorial points out

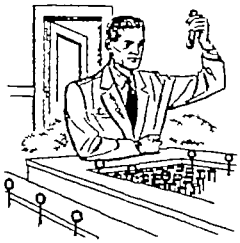
What this has to do with the question of national compulsory health insurance is slightly less than clear "We have the knowledge," says Mr Ewing in "The Nation's Health—a Ten-Year Program," "to prevent 325,000 deaths each year" So what?

Invariably advocates of state medicine, or socialized medicine use these figures as the opening gambit in debating the question "Should We Have National Compulsory Health Insurance?"

The inference to be drawn is that medicine is not doing its job, that in some unexplained way it is withholding from the people available knowledge which would make unnecessary the deaths of 325,000 persons annually The absurdity of this intended inference seems obvious But are nonmedical people likely to question the assertion? Mr Ewing apparently did not, since he made it in what we may assume to be good faith in his report to the President.

[1] J.A.M.A. 140 408 (May 28) 1949





HEARTS THAT NEED YOUR HELP AND OURS





The incidence of heart disease continues to increase as the average span of life is lengthened The problem is being attacked on several fronts Delicate instruments of diagnosis, better preventive measures, and improved surgical techniques have been devised Knowledge of the physiology of the heart and vascular system is increasing Useful new drugs have been introduced, and more are being developed

Specialists in this field at the Lilly Research Laboratories are placing major stress upon the medical approach to this problem With crystalline digitoxin and newer diuretic drugs, many victims of advanced heart failure, who formerly would have been considered beyond treatment, are now relieved of symptoms Papaverine hydrochloride makes possible the symptomatic relief of coronary occlusion, angina pectoris, and certain types of vasospastic disease Even though the fundamental disease condition remains, life may be prolonged and made more useful and pleasant

Lilly

MANY SPECIALISTS SERVE THE MEDICAL PROFESSIO

it reports, in relation to the construction of Veterans Administration Hospitals, "The Federal government is assuming uncalculated obligations without any understanding of their ultimate cost, the lack of necessary professional manpower to carry them out, or their adverse effect upon the hospital system of the country" And again, "(there is a) pattern of duplication of physical facilities, waste of scarce medical personnel, and unwarranted construction of new facilities—all resulting primarily from the lack of a central plan for federal medical care"

We are among those skeptics who view governmental intervention whether fiscal or managerial in evolutionary developments as the last full measure of defeat We require, for instance, to be shown *on the record*, specifically, where, when and how government has provided better, quicker, and cheaper medical service than private initiative has produced Medical care for the armed services? What, actually, did it cost? Could the taxpayer stand for that high cost service short of war necessity?

All the talk in the world will do little to alter the fact that national health insurance as a function of the social security program would probably prove to be the most costly experiment ever undertaken and head the list of uncalculable obligations which might easily lead to bankruptcy of the nation

Beauty or Bouquets? Some days ago we noted these headlines in the New York *Times*—"Hospitals Provide Facials and Waves"[1]

At first our reaction was one of indignation At these times, in particular, when every effort must be made to enlist the public in voluntary hospital insurance, to bring down in every possible way the cost of medical care, was not this increased service, with its considerable cost, an unconscionably unjustifiable frivolity?

Fortunately, before we had had time to commit ourselves to paper, the words of a wordly minded college friend came floating up from our subconscious, "Never," he was wont to say, "propose to a girl until you have seen her eating an orange at a football game"

In our early days in the hospital we had often amplified his sage advice to read, "Never propose to a girl until you have seen her coming out of ether"

[1] New York Times March 5 1949

This amplification, after more years of married life than we care to acknowledge, we instantly rejected Men and women are poor creatures at best, and they are entitled to whatever defenses—camouflage, if you care to use the harsher term—their self-respect persuades them to erect Fortunately for us—as should be at intervals the lot of every surgeon—we had recently undergone an operation The first glance into the mirror afterwards was of far greater importance than any information as to the healing of our wound With what gratitude did we welcome the agonies of inexpertly wielded razor that removed the horrid stubble from our shapely chin!

Whereas for a woman (we quote from an authority—one who suffered operative complications and almost died) the situation is much worse "Flowers," says she, "for the period when you may be going to die and don't care if you are They bring beauty and a breath of friendship into your state of dreamy unreality There must still be, among the living, people who care for you, and that faint perfume that mitigates the odor of the institution promises perhaps a tolerable life that may still be worth holding on to

"But when you have turned the corner, when your nurse's look of desperate anxiety has turned to one of more or less patient boredom, and one, bolder than the rest, puts a mirror in your hand, then is the moment that is the supreme trial of a woman's soul Can it be possible that you really look like that? Is survival worth the trouble? Will any man ever welcome home that pale and ravaged face, that dank hair, those ridged and lifeless looking finger nails? It is a crisis"

Isn't it better to hold yourself as if you felt well, rather than to hold yourself as if you felt ill? Every time you see yourself in a shop window you get a positive, not a negative reflection If you have the strength of mind and body to hold yourself erect when you feel terrible, what is it but camouflage? Or call it dignity, if you prefer

Help out the suffering woman Give her a facial Wave her hair Manicure her hands Pull her one foot out of the grave by making her look an object that her husband may yet gaze upon without repulsion Do it now Forestall the undertaker

Yes, we are all for the beauty parlor at the bedside It does not increase the cost

Allegedly "preventable" accidental deaths are also dragged in by Mr Ewing and his mimes in the same red herring technic We agree with the writer of the editorial that,

> If the Administrator's estimate of "preventable" accidental deaths is intended as a plea for more and better safety and accident prevention measures, every one will commend the Administrator for bringing an important matter to the attention of the public Bulletin 64, "What Is the Leading Cause of Death? Two New Measures," by the Bureau of Medical Economic Research of the American Medical Association, has shown that accidental deaths cut off more working years from the lifetime of the American people than any one natural cause of death "Fatal accidents" is the number one destroyer of the working years of life The National Safety Council, the millions of plant safety workers, the traffic policemen, and even the school children on patrol duty would doubtless welcome the aid and help of the vast Federal Security Agency in the prevention of accidents Physicians realize that a comprehensive scheme for an extensive reorganization of the nation's medical services could not eliminate 40 per cent, or 40,000, of the annual 100,000 accidental deaths

While physicians realize the absurdity of the claim that 40,000 of these accidental deaths could be prevented by Mr Ewing's proposed "extensive reorganization of the nation's medical services," it should be held in mind that the claim is not addressed to physicians but to the public, and again by inference the profession is made to appear negligent

The misleading use of the U S draft rejection figures is another instance of assertion by indirection that the profession of medicine could have salvaged more, that rejections would have been fewer under government-controlled medicine The fact that the same medical personnel would have had to do the salvaging of the possible six per cent of those rejected who, according to Rowntree, might have benefited by prior medical treatment is utterly ignored

That these matters have little or nothing to do with the actual health of the nation seems to have no weight with the proponents of national compulsory health insurance, many of them otherwise intelligent non medical persons One is compelled to assume, reluctantly, either that they honestly have fallen for their own propaganda, have charmed themselves with their own music, or knowingly are selling these gold bricks on the theory that the end justifies the means

Current Editorial Comment

Uncalculated Obligations Discussing public financing of medical education, research, health, and medical care, the *New England Journal of Medicine* comments on an address by Dr Allen M Butler delivered to the Suffolk District Medical Society as presenting "astutely and temperately the arguments in favor of compulsory health insurance "[1]

Says the *Journal* editorially

> The fact that in 1946 the Government spent $1,200,000,000 for health and medical care is taken by Dr Butler as "a measure of the failure of philanthropy and private charity to meet the needs" Presumably the expenditures of the Veterans Administration are included in this figure, but aside from this no estimate is available as to how much of the colossal outlay was necessary, or how wisely and economically it was made If this vast sum was expended with caution and judgment, and with due regard to conservation of the country's resources, then the employment of some part of it is certainly acceptable so far as present concepts are concerned This applies especially to those allocations having to do with public health, with the care of communicable disease and mental illness, and to a considerable degree with research There is, however, a line, indistinct as it may be, beyond which governmental encroachment may be justly considered as dangerous in that it may jeopardize the quality of medical care There is still occasion, in our imperfect society, for skepticism regarding the efficiency of government methods
>
> Published sections of the Hoover investigation give substance to this skepticism, as where

[1] New England J Med 240 352 (Mar 3) 1949

ADVANCES IN PHYSICAL MEDICINE

From the Department of Rehabilitation and Physical Medicine
New York University College of Medicine

Howard A Rusk, M D , Director

The Role of Therapeutic Exercises in the Treatment of Low Back Pain

In many clinical "low back" cases thorough workup and x-ray studies frequently fail to establish an anatomic diagnosis In this group and in many "osteoarthritic" cases, where muscle deficiencies seem to be responsible for at least part of the complaint of the patient, it pays to submit the muscles to a few simple tests

We can gauge the strength of the back muscles by placing the patient face down, hips resting on a pillow The examiner holds the back and legs on the table and asks the patient to raise his trunk with hands locked behind neck If the patient can raise his chest to a horizontal position and hold this position to the count of 10, his "upper back muscles" are graded as 10 and considered normal Then the examiner holds chest and hips of patient and asks him to raise both legs to horizontal, again for ten seconds This gives an estimate of "low back" strength Ten seconds can be considered normal

The patient should then lie supine and raise both legs to an angle of about 30 degrees above the table, holding this position with legs straight to the count of 10 This gives normal rating of "lower abdominals" "Upper abdominal" strength is determined by asking the patient to lock hands behind neck, holding his ankles, and asking him to sit up If he can accomplish this from 180 degrees (i e , a flat position) grading is 10, or normal If he needs assistance and can take his full weight only from a 45 degree position he is rated as 5 (half of normal) The degrees in between are rated by how close they come to the 180 degree, or flat, position The same test can be made with knees flexed and feet placed close to buttocks In this position the hip flexors are eliminated and "straight abdominals" tested

Next, hamstring length is measured by passively raising a straight leg and measuring the angle between leg and table at the point at which the contralateral hip or knee shows movement, thus indicating that the hamstring length of the examined side has been exhausted Normal figures should be around 80 degrees Total length of back muscles and hamstrings can be measured by having the patient stand up straight and attempt to touch the floor with the tips of the fingers Touching the floor should be possible for a normal person

Frequent deviations in these figures can be found, but it may be assumed that a person who does not conform to these standards has a functionally poor back and may be subject to back strain sooner than a person whose back conforms to these minimal standards

The results of these tests can be written in a formula which permits easy evaluation of test results Assuming "upper back muscle strength" of 10 and "lower" 10, abdominal muscle strength of "upper" 10, "lower" 10 and "straight" 10, and back muscle-hamstring length—touching floor 90/90 degrees, or a normal back, the result can be written as follows

$$B\,\frac{10}{10}\,A\,\frac{10}{10}\,10$$

$$BH—t$$

$$H\,\frac{90}{90}$$

Where the respective figures fall below normal, weakness or muscle tightness is present

Therapeutic exercises are prescribed according to these relative weaknesses or

of hospital care The hospital gets 10 per cent of the costs of beauty treatments which the patient would have had at home, anyway Let friends send flowers for the first week and beauty treatments for the second When the husband's desperate anxiety is assuaged, let him convert his liquor and his cigaret money to the same purpose Such treatment is not adding to the cost of hospital care It is putting the gilt onto the gingerbread of every woman's life—married or single

From Personal Experience Take it from one who has suffered

"Don't make me laugh! I've lived under these schemes" So says Dorothy Thompson, referring to her experiences with socialized medicine in Germany, France, Great Britain, and Austria

Every practitioner of medicine in the State of New York has had experience with workmen's compensation Most of us will admit that a workingman injured in the line of duty deserves compensation during the resulting period of disability Most of us will admit that in most cases the law has worked well

But what has the average doctor to say about the workings of the law?

That it gives him an immense amount of paper work to do

That he often has great difficulty in getting his patients who are receiving compensation to go back to work

That he has made enemies on all sides If he is honest in his conviction that his patient is cured, and says so, his patient, who should be grateful, damns him to his face, and blackens his reputation, so that few other injured workingmen will, under their right of free choice of physician, seek his services

If his judgment inclines the other way and he is prone to keep the patient too long under his fostering care, the insurance company is against him In spite of "free choice" he finds that his supply of compensation cases is dwindling, which might be due to underground influence

If he is the best and most conscientious surgeon in the State, if every factor combines to work with him for good, the fee schedules set for him by the State are so absurdly inadequate that he would prefer to do such work as charity, if he could afford to

If he is the accommodating type, who "goes along" as the phrase is, he knows that compensation cases will continue to come to him, and he will soon learn to steer the middle course that on the one hand pays him for his diathermy machine and his masseuse and on the other tells him just when to stop treatment because the insurance company thinks the patient has had enough

Under such a system the patient is either over- or undertreated

Under such a system the doctor is either under- or overpaid

We believe that our remarks, in regard to New York State at least, are applicable.

How would you like to have such a condition made nation wide?

Doctors and Atomic Energy The births of many of the physical sciences were assisted by ingenious physicians The study of gases and the measurement of heat were once the exclusive province of medical doctors Current electricity had its inception in medical research on nerves There is good precedent, therefore, that nuclear physics, the youngest of the physical sciences, should also benefit by the attention of the medical profession Medicine was probably the first science to be recognized as such, obviously because it had a vital and practical importance to every citizen

Rear Admiral Strauss points out that the development of atomic energy poses to medicine new and fearful questions[1] Radiation hazards on a large scale are a threat to life, health, and reproduction Both in theory and in practice how to handle it safely is a medical problem To make atomic energy useful, we must convert an advance in pure science to practical ends The conversion must clear three hurdles prejudice, tradition, and special interests These interests are the government departments, the industrial laboratories, and the universities Each of these should be maintained, but in a way to promote the early and intelligent development of the benign uses of atomic energy

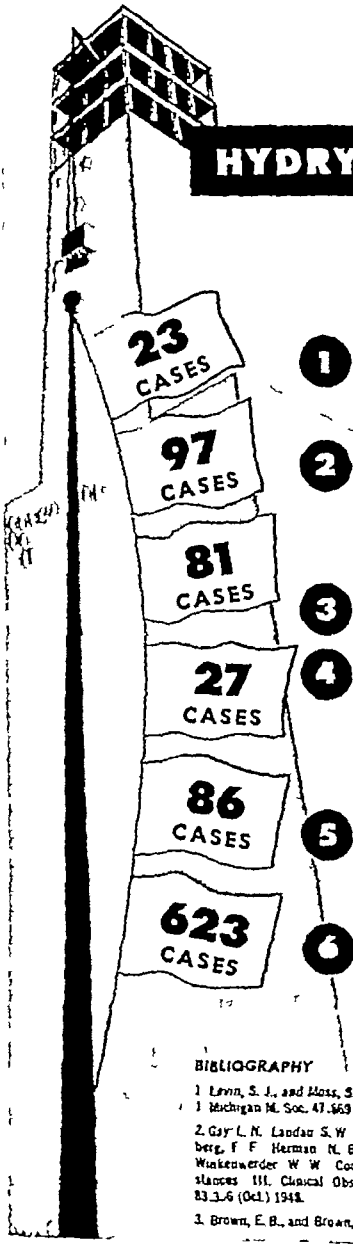
The handicaps are government inflexibility, impossibility of adequate reward of industry's key personnel, and the tendency of universities to disregard quick practical returns, while continuing large expendi-

[1] On the Record Committee for Constitutional Government 205 East 42nd Street New York 17 New York

[1] Strauss L L J A M A 138 1225 (Dec 29) 1948

[Continued on page 1524]

THE EVIDENCE IS OVERWHELMING



"markedly benefited"[1]
"% benefited . . . 73"[2]
"relief obtained"[3]
"definite relief"[4]
"relieved 56 per cent"[5]

1 "The results in hay fever with Hydryllin were very striking Twenty of twenty three seasonal hay fever patients (86 9 per cent) were markedly benefited, receiving relief varying from 50 to 100 per cent "[1]

2 '% benefited 73 "[2] In table 1 it is shown that Hydryllin benefited 73 per cent of ninety seven patients with seasonal and perennial allergic rhinitis.

3

"Symptom	Number of patients	Relief Obtained 100%	75%	50%	20%	0
Hay Fever	81	39	12	11	5	14"[3]

4 ' In a group of hay fever cases, 14, or 52 per cent, obtained definite relief (50 to 100 per cent amelioration of symptoms) with Hydryllin. In some cases relief followed immediately after the first use of the drug, but in other cases it was necessary to increase the dose to three to six tablets daily "[4]

5 ' Hydryllin relieved 56 per cent of 86 patients. "[5]

AND IN ASTHMA

6 ' In the asthmatic cases, both those with asthma due to pollen and those having asthma from other sources, the figures of the effectiveness of the drug are more impressive than those of other antihistaminics. '[6]

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HYDRYLLIN® SEARLE

Research in the Service of Medicine

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HYDRYLLIN TABLETS contains

Diphenhydramine	25 mg
Aminophyllin	100 mg

HYDRYLLIN with *Racephedrine Hydrochloride*
Each tablet contains:

Hydryllin	125 mg
Racephedrine Hydrochloride	25 mg

HYDRYLLIN ELIXIR (4 cc. = ½ Hydryllin tablet)

HYDRYLLIN COMPOUND (cough syrup preparation)

muscle shortnesses A formula of

$$B\,\frac{10}{10}\,A\,\frac{5}{10}\,0$$

$$BH—5$$

$$H\,\frac{60}{60}$$

would indicate a back with weak abdominal muscles and tight hamstring muscles This back would benefit by strengthening exercises for the abdominal muscles and, at a later stage, by back muscle and hamstring stretching

Examination of large numbers of these "muscular backs" reveals certain types of trunk weaknesses and certain relations with the pelvic tilt that are very interesting If these different types of relative muscle deficiencies are followed it becomes apparent why no exercise "system" can answer all the questions, but why individual testing and prescription is necessary

It is of utmost importance to give the patient a limited but well-supervised exercise program The weak patient may have to start five-minute periods several times a day and gradually work up to one or two half-hour periods a day to obtain satisfactory results The exercises must be performed under supervision of the doctor or therapist and, unless this is done regularly, at least two or three times a week, and followed up by daily home exercises, no results can be expected

The following figures may illustrate that a meticulous exercise approach will yield results Of a total of 143 patients 92 (or 65 per cent) were found to be "muscular backs" Of these patients 71 (77 per cent) treated with therapeutic exercises were relieved of their complaints and conformed to normal muscle test standards, 11 (12 per cent) complained of occasional pain or did not quite conform to normal standards, and 10 (11 per cent) were not relieved

The acute painful low back is an entirely different chapter and should never be subjected to the above muscle tests Here the relief of pain, due to painful muscle spasm, should be the first step Surface anesthesia (ethyl chloride spray) and extremely mild exercises should be given Exercises should consist of the patient lying on one side, pulling the upper leg toward his chest, bringing it down again, extending it, and repeating that movement two or three times on each side The above movement should be accompanied by spraying the painful area with ethyl chloride Spray should be intermittent and skin should never be "frozen" The patient should repeat these exercises two or three times every half hour

Only after this acute stage is passed and complete workup has been given should muscle tests be performed Deep tenderness of the muscles and surface tenderness of the skin require respective approach by massage The presence of "osteoarthritis," together with relative muscle deficiencies and frequently born out by "jelling" pain, requires "scattered" exercises (i e, simple movements performed very frequently during the day) aiming at preventing recurrence of this "jelling" pain

—Hans Kraus, M D

Current Editorial Comment

[Continued from page 1522]

tures of money taxed from the lay public The advantages to be derived from those three sources are from the government permanence, reference, and control activities The industrial laboratory has flexibility, competition, incentive, and daring The university, as the traditional trustee of learning and the defender of unprejudiced thought, must have a predominant consultative role in any important scientific public enterprise

Scientific Articles

Panel Discussion

OBSTETRIC ANESTHESIA

A CRITICAL APPRAISAL OF SPINAL ANALGESIA AND ANESTHESIA FOR OBSTETRICS

BARNETT A GREENE, M D , Brooklyn, New York

(From the Departments of Anesthesiology, Adelphi, Unity, and Brooklyn Women's Hospitals)

SPINAL analgesia and anesthesia for vaginal or abdominal delivery is on the crest of a new wave of popularity Following Lemmon's innovation of fractional spinal anesthesia in 1940, many who have feared single-dose technics for cesarean section now use fractional spinal anesthesia. As a result of Hingson's development of continuous caudal analgesia from Lemmon's method, caudal analgesia for labor and vaginal delivery has become popular in many communities Because the caudal technic is often difficult, sometimes impossible, and occasionally contraindicated by local anatomic features, spinal analgesia has become popular as a substitute for caudal

Spinal anesthesia for obstetrics is destined to fall again into disfavor, as has happened twice in the past, unless it is employed with the fine precision and judgment necessary to obtain its undeniable advantages without its well-known and feared complications and disadvantages

The purpose of this report is to describe my experience with spinal anesthesia in obstetrics with special emphasis on those measures which I believe are necessary for its safe and uncomplicated use I have personally administered more than 27,000 spinal anesthesias for all cases including 520 for cesarean section. Our group of anesthesiologists has given over 2,000 spinals for labor and vaginal delivery

Spinal is still the most dangerous method of obstetric anesthesia, as De Lee and Greenhill have long taught That is true, however, only for those who are ignorant of the physiologic changes produced by spinal anesthesia, who are lacking in clinical judgment of a patient's ability to tolerate those changes, and who are unprepared to correct abnormalities of respiration and circulation during anesthesia and delivery The factor which has contributed most to the tragic history of spinal anesthesia is the ease with which it can be performed by anyone, e g , a nurse at one hospital in Brooklyn In the hands of an anesthesiologist who is experienced, skillful, and alert with spinal anesthesia, it is a safe and valuable method

Skill with spinal anesthesia is an art There are some who do not learn to choose the patient and the particular method wisely, who are not adept and facile in technic, and who are not quickly observant of danger signs These anesthetists should avoid spinal anesthesia in obstetrics

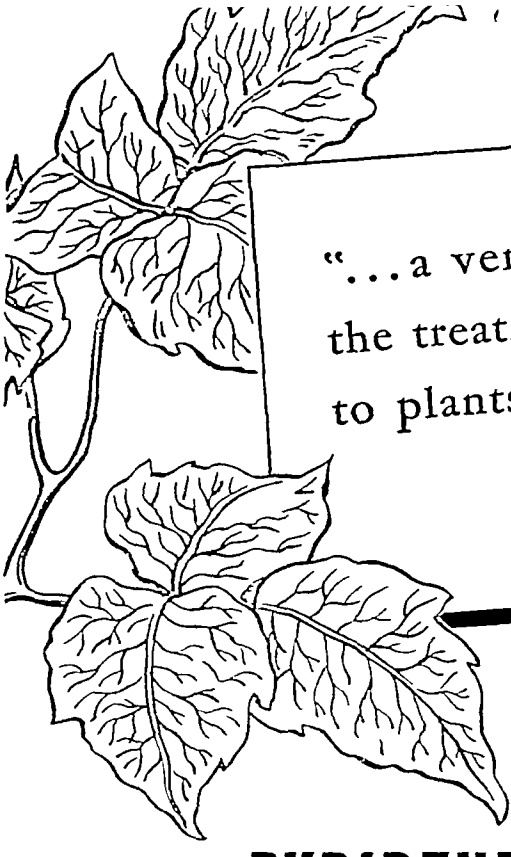
During the past twelve years, I have tried most of the drugs and technics recommended in the literature As a result I have adapted certain basic principles and practices for spinal anesthesia for obstetrics

"Saddle Block" Anesthesia

Every spinal anesthesia for obstetrics, whether for vaginal or abdominal delivery, must rise to the thoracic ninth segmental areas, the level of the umbilicus, if analgesia of uterine "pains" or surgery is to be obtained "Saddle block" is a misnomer and misleading for a spinal analgesia of this height A "saddle block" proper covers only the anus, rectum, genitals, and the inner aspects of the thighs, the area innervated by the sacral nerves [1] This point is stressed so that any one who attempts to relieve obstetric pain should approach it with the same attention and safeguards that one must use for spinal anesthesia for cesarean section.

A true "saddle block" is excellent just for the terminal phase of a vaginal delivery I have long

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Anesthesiology May 4 1949



"...a very valuable adjunct to the treatment of dermatitis due to plants, especially

POISON IVY..."[1]

PYRIBENZAMINE cream or ointment

Applied locally, Pyribenzamine hydrochloride usually gives prompt and prolonged relief from itching in dermatitis venenata due to poison ivy, oak or sumac.

Pyribenzamine has also been found to give relief to the majority of patients with other itching dermatoses, "particularly atopic dermatitis and pruritus ani"[2]

"In many instances the local skin conditions are, of course, more rapidly and more completely eradicated by the combined topical and oral administration of this drug"[1]

1 Carrier R. E Krug E S and Glenn H R J Lancet 68 240, June 1948
2 Feinberg S M and Bernstein T B J of A M A 134 10 July 1947

PYRIBENZAMINE CREAM, 2 per cent (water washable base), jars of 50 Gm and 1 pound, Ointment, 2 per cent (petrolatum base), jars of 50 Gm and 1 pound.

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man, especially in surgical or obstetric patients, obtained with due regard for the patient's water balance and the disturbances created by the experimental effort to measure spinal fluid formation The key to preventing and treating the postspinal headache is in knowing and utilizing the fact that the restoration of cerebrospinal fluid volume reduced by leakage is directly proportional to the degree of body hydration [13,14]

These considerations led us to try consecutive series of vaginal deliveries under spinal analgesia using 20-, 22-, 24-, and 26-gauge needles In each needle gauge group, some patients were specially hydrated by mouth, and others were permitted to take fluids as desired

The 20-gauge series had 17 patients 41 per cent developed headache, 23 per cent had severe headaches This series had to be cut short because the obstetricians objected to its continuation

The 22-gauge series had 211 patients 17 per cent developed headache, 6 per cent of all patients had severe headaches Of the 108 patients who were specially hydrated, 10 per cent had a headache, and only one was severe, of the 93 patients not hydrated, 26 per cent had headache, and 6 per cent of patients had it in severe form

The 24-gauge series contained 341 patients, 5 per cent of all patients complained of headache, but only 1 per cent had severe headache The specially hydrated 149 patients had a headache incidence of 2 per cent with only one severe headache, the nonhydrated group of 192 patients had an incidence of 8 per cent with 2 per cent of patients affected with severe headache

The 26-gauge series contained 116 patients, 3 per cent of all patients developed a headache None was severe Two instances occurred in the 21 nonhydrated patients Of the 95 hydrated, "26-gauge needle" patients the only headache (and that was mild) occurred in the migrainous wife of a physician who insisted on the spinal analgesia rather than a caudal which had precipitated a violent and protracted headache after her first delivery

These trials have convinced us that the practical solution of the headache problem in spinal analgesia for vaginal delivery is to use a 26-gauge lumbar puncture needle and to hydrate the patient by forcing her to drink ten glasses of fluids, approximately 2,500 cc , during each of the first three days postpartum If dehydration or blood loss has been marked or the lumbar puncture has been unavoidably performed with a 22-gauge or larger needle, we advise, in addition to oral forced fluids, an infusion of one liter of isotonic glucose in water, or more if indicated Posterior pituitary extract, ten units twice a day for two days, is a valuable aid in retaining body water and hydrating the central nervous system

Fractional Spinal Anesthesia

Fractional spinal anesthesia has revived the popularity of spinal for cesarean section, because it enables the surgeon or anesthetist to secure an analgesic level gradually with minimal dosage and to maintain it as long as desired The fractional method is no safer than the individual using it I know of an unpublished death following the injection of 60 mg of procaine hydrochloride by the fractional method applied by a resident in anesthesiology to a young cesarean patient exhausted by prolonged labor Failure to restore and control the peripheral circulation with fluids and ephedrine sulfate were the causes of this preventable death

I have used the fractional method in only 42 cesarean sections although I have applied it in over 500 major, general surgical cases The anesthesiologist who is expert in the use of single-dose technic with heavy Nupercaine rarely needs the fractional method The fractional method is reserved for the cesarean patient who should receive spinal anesthesia because of great abdominal distention, marked obesity, or a serious contraindication to general anesthesia but who is also a poor risk for the ordinary technic because of cardiac failure or depleted blood volume The patient with a defective circulation of peripheral or central origin is more safely injected with the anesthetic drug only after the needle or catheter has been inserted, she has returned to lie on her back, and an infusion has been started running with certainty through a large gauge intravenous needle Fractional spinal is also especially useful when analgesia is desired to begin immediately after a decision has been made to section a patient in active, painful labor, and one must wait an uncertain or appreciable period of time for the operation to begin.

Fractional spinal analgesia has been recommended for labor and vaginal delivery, but such use is seriously limited by the high incidence of severe postpuncture headache [15,16] Occasionally I have used it when continuous caudal analgesia was not feasible and a single-dose technic was contraindicated by uncertainty regarding the course and state of labor

Knowledge of the conduct of labor and vaginal delivery under fractional spinal analgesia is valuable when a caudal needle has inadvertently punctured the subarachnoid space during the attempt to use Hingson s method Instead of withdrawing the caudal needle as advised in most publications, the caudal needle should be permitted to remain in the subarachnoid space and

used it for this purpose as recommended in 1928 by Pitkin and McCormack and by Cosgrove [2,3] For this purpose procaine hydrochloride crystals, 50 to 100 mg in spinal fluid to form a 5 per cent hyperbaric solution, is still the preferred drug The early enthusiasts erred seriously on two counts, first in recommending it for all cases, including those with a ruptured uterus or ectopic pregnancy, and secondly, in encouraging its use by any one with "no greater knowledge than that of doing a lumbar puncture (and) by the operator himself, thereby eliminating the necessity of an anesthetist" [2] Gleeson in Jersey City and Fraser in Canada have also applied terminal spinal anesthesia for vaginal delivery for more than a decade with good results [4,5]

Use of Vasopressor Drugs

Ephedrine sulfate or an analogous vasopressor drug is an important factor for safety in all cases of spinal anesthesia, but it is indispensable in obstetrics because of the rapid decompression of the abdomen and the significant blood loss associated with delivery Even before delivery, the parturient's blood pressure seems abnormally labile in response to spinal analgesia We administer 50 mg ephedrine sulfate or 5 mg neosynephrine hydrochloride hypodermically ten minutes before every spinal anesthesia unless hypertension is present In that case, the vasopressor is withheld, to be injected intravenously as soon as the blood pressure falls below 100 mm Hg systolic and as often thereafter as needed It is regrettable to note reports based on a relatively few cases in which a prespinal vasopressor is deliberately omitted [6,7] It is especially deplorable for the commercial literature, from which so many beginners learn obstetric spinal analgesia, to state that "it is not necessary in saddle block (with Nupercaine)" and to recommend such time-wasting and questionably effective measures as oxygen inhalation and elevation of the legs as the first with which to treat hypotension. The failure to use a vasopressor correctly or promptly has been the cause of several recent maternal deaths in our community

Prolonged Spinal Anesthesia

Prolonged spinal analgesia for labor and delivery has been developed as a substitute for the continuous caudal method when a patient cannot benefit by a caudal because of anatomic difficulties or local contraindications We have come to prefer spinal analgesia to caudal for any normal parturient whose delivery can be reasonably expected within four hours

The anesthesiologist using spinal analgesia must become familiar with the diagnostic criteria of labor if he wishes to avoid "hanging up a labor" or spending his time uneconomically Spinal analgesia for labor, because it cannot be interrupted, requires more precise diagnosis of presentation, station, and cervical dilatation than does continuous caudal analgesia.[8] Spinal is, therefore, not our first choice for the patient whose course of labor cannot be predicted accurately Spinal analgesia is avoided when the patient is prone to headache For the cardiac or the preeclamptic, caudal is preferable to spinal because the former is more gradual in onset and more controllable in duration

Nupercaine (1 200) is our selection for spinal analgesia required for more than one hour We have been using it in general surgery for the past eight years according to the technic of Romberger, and, therefore, we have learned that it is not especially prone to producing neurologic complications or headache, contrary to some reports [4,9,10] Furthermore, we have found that Nupercaine, unlike Pontocaine or Metycaine, is not likely to rise to an unduly high level In fact, Nupercaine (1 200) is unreliable for upper abdominal surgery unless a deliberate effort is made to obtain a high level by the use of large volumes of diluent and the Trendelenburg position

We start spinal analgesia for labor according to the same indications for the initiation of continuous caudal analgesia [8] By combining 1 cc of Nupercaine (1 200) and 1 cc 10 per cent glucose with 1 cc of 5 per cent ephedrine sulfate or 1 1,000 epinephrine hydrochloride, we have regularly obtained analgesia for labor and delivery lasting four hours Where analgesia is desired for only two hours, a vasoconstrictor is omitted from the mixture of 1 cc Nupercaine (1 200) and 1 cc 10 per cent glucose In 700 spinal analgesias for labor we have had to repeat the spinal or add a supplementary anesthesia in only eight cases, four of these were instituted by residents in training

Postspinal Headache

Postspinal headache is the most common and annoying complication of spinal anesthesia for obstetrics We have practically solved this problem by utilizing the "leakage" explanation It is unfortunate that this etiology is not more widely accepted, but anyone familiar with the multitude of supporting observations accumulated in the monographs of Wolff and Thorsen is bound to accept the leakage theory [11,12]

The great difficulty with the "leakage" explanation has been the inability to understand how spinal fluid could be deficient in volume, even though leakage has occurred, if spinal fluid is formed in the large quantities reported in textbooks The fact is that there are no reliable data on the rate of formation of spinal fluid in

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The anesthesiologist using spinal analgesia must become familiar with the diagnostic criteria of labor if he wishes to avoid "hanging up a labor" or spending his time uneconomically Spinal analgesia for labor, because it cannot be interrupted, requires more precise diagnosis of presentation, station, and cervical dilatation than does continuous caudal analgesia.[8] Spinal is, therefore, not our first choice for the patient whose course of labor cannot be predicted accurately Spinal analgesia is avoided when the patient is prone to headache For the cardiac or the preeclamptic, caudal is preferable to spinal because the former is more gradual in onset and more controllable in duration

Nupercaine (1 200) is our selection for spinal analgesia required for more than one hour We have been using it in general surgery for the past eight years according to the technic of Romberger, and, therefore, we have learned that it is not especially prone to producing neurologic complications or headache, contrary to some reports [4,9,10] Furthermore, we have found that Nupercaine, unlike Pontocaine or Metycaine, is not likely to rise to an unduly high level In fact, Nupercaine (1 200) is unreliable for upper abdominal surgery unless a deliberate effort is made to obtain a high level by the use of large volumes of diluent and the Trendelenburg position

We start spinal analgesia for labor according to the same indications for the initiation of continuous caudal analgesia [8] By combining 1 cc of Nupercaine (1 200) and 1 cc 10 per cent glucose with 1 cc of 5 per cent ephedrine sulfate or 1 1,000 epinephrine hydrochloride, we have regularly obtained analgesia for labor and delivery lasting four hours Where analgesia is desired for only two hours, a vasoconstrictor is omitted from the mixture of 1 cc Nupercaine (1 200) and 1 cc 10 per cent glucose In 700 spinal analgesias for labor we have had to repeat the spinal or add a supplementary anesthesia in only eight cases, four of these were instituted by residents in training

Postspinal Headache

Postspinal headache is the most common and annoying complication of spinal anesthesia for obstetrics We have practically solved this problem by utilizing the "leakage" explanation It is unfortunate that this etiology is not more widely accepted, but anyone familiar with the multitude of supporting observations accumulated in the monographs of Wolff and Thorsen is bound to accept the leakage theory [11,12]

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man, especially in surgical or obstetric patients, obtained with due regard for the patient's water balance and the disturbances created by the experimental effort to measure spinal fluid formation The key to preventing and treating the postspinal headache is in knowing and utilizing the fact that the restoration of cerebrospinal fluid volume reduced by leakage is directly proportional to the degree of body hydration [13 14]

These considerations led us to try consecutive series of vaginal deliveries under spinal analgesia using 20-, 22-, 24-, and 26-gauge needles In each needle gauge group, some patients were specially hydrated by mouth, and others were permitted to take fluids as desired

The 20-gauge series had 17 patients 41 per cent developed headache, 23 per cent had severe headaches This series had to be cut short because the obstetricians objected to its continuation

The 22-gauge series had 211 patients 17 per cent developed headache, 6 per cent of all patients had severe headaches Of the 108 patients who were specially hydrated, 10 per cent had a headache, and only one was severe, of the 93 patients not hydrated, 26 per cent had headache, and 6 per cent of patients had it in severe form

The 24-gauge series contained 341 patients, 5 per cent of all patients complained of headache, but only 1 per cent had severe headache The specially hydrated 149 patients had a headache incidence of 2 per cent with only one severe headache, the nonhydrated group of 192 patients had an incidence of 8 per cent with 2 per cent of patients affected with severe headache

The 26-gauge series contained 116 patients, 3 per cent of all patients developed a headache None was severe Two instances occurred in the 21 nonhydrated patients Of the 95 hydrated, "26-gauge needle" patients the only headache (and that was mild) occurred in the migrainous wife of a physician who insisted on the spinal analgesia rather than a caudal which had precipitated a violent and protracted headache after her first delivery

These trials have convinced us that the practical solution of the headache problem in spinal analgesia for vaginal delivery is to use a 26-gauge lumbar puncture needle and to hydrate the patient by forcing her to drink ten glasses of fluids, approximately 2,500 cc , during each of the first three days postpartum If dehydration or blood loss has been marked or the lumbar puncture has been unavoidably performed with a 22-gauge or larger needle, we advise, in addition to oral forced fluids, an infusion of one liter of isotonic glucose in water, or more if indicated Posterior pituitary extract, ten units twice a day for two days, is a valuable aid in retaining body water and hydrating the central nervous system

Fractional Spinal Anesthesia

Fractional spinal anesthesia has revived the popularity of spinal for cesarean section, because it enables the surgeon or anesthetist to secure an analgesic level gradually with minimal dosage and to maintain it as long as desired The fractional method is no safer than the individual using it I know of an unpublished death following the injection of 60 mg of procaine hydrochloride by the fractional method applied by a resident in anesthesiology to a young cesarean patient exhausted by prolonged labor Failure to restore and control the peripheral circulation with fluids and ephedrine sulfate were the causes of this preventable death

I have used the fractional method in only 42 cesarean sections although I have applied it in over 500 major, general surgical cases The anesthesiologist who is expert in the use of single-dose technic with heavy Nupercaine rarely needs the fractional method The fractional method is reserved for the cesarean patient who should receive spinal anesthesia because of great abdominal distention, marked obesity, or a serious contraindication to general anesthesia but who is also a poor risk for the ordinary technic because of cardiac failure or depleted blood volume The patient with a defective circulation of peripheral or central origin is more safely injected with the anesthetic drug only after the needle or catheter has been inserted, she has returned to lie on her back, and an infusion has been started running with certainty through a large gauge intravenous needle Fractional spinal is also especially useful when analgesia is desired to begin immediately after a decision has been made to section a patient in active, painful labor, and one must wait an uncertain or appreciable period of time for the operation to begin.

Fractional spinal analgesia has been recommended for labor and vaginal delivery, but such use is seriously limited by the high incidence of severe postpuncture headache [15 16] Occasionally I have used it when continuous caudal analgesia was not feasible and a single-dose technic was contraindicated by uncertainty regarding the course and state of labor

Knowledge of the conduct of labor and vaginal delivery under fractional spinal analgesia is valuable when a caudal needle has inadvertently punctured the subarachnoid space during the attempt to use Hingson's method Instead of withdrawing the caudal needle as advised in most publications, the caudal needle should be permitted to remain in the subarachnoid space and

used it for this purpose as recommended in 1928 by Pitkin and McCormack and by Cosgrove [2,3] For this purpose procaine hydrochloride crystals, 50 to 100 mg in spinal fluid to form a 5 per cent hyperbaric solution, is still the preferred drug The early enthusiasts erred seriously on two counts, first in recommending it for all cases, including those with a ruptured uterus or ectopic pregnancy, and secondly, in encouraging its use by any one with "no greater knowledge than that of doing a lumbar puncture (and) by the operator himself, thereby eliminating the necessity of an anesthetist" [2] Gleeson in Jersey City and Fraser in Canada have also applied terminal spinal anesthesia for vaginal delivery for more than a decade with good results [4,5]

Use of Vasopressor Drugs

Ephedrine sulfate or an analogous vasopressor drug is an important factor for safety in all cases of spinal anesthesia, but it is indispensable in obstetrics because of the rapid decompression of the abdomen and the significant blood loss associated with delivery Even before delivery, the parturient's blood pressure seems abnormally labile in response to spinal analgesia We administer 50 mg ephedrine sulfate or 5 mg neosynephrine hydrochloride hypodermically ten minutes before every spinal anesthesia unless hypertension is present In that case, the vasopressor is withheld, to be injected intravenously as soon as the blood pressure falls below 100 mm Hg systolic and as often thereafter as needed It is regrettable to note reports based on a relatively few cases in which a prespinal vasopressor is deliberately omitted [6,7] It is especially deplorable for the commercial literature, from which so many beginners learn obstetric spinal analgesia, to state that "it is not necessary in saddle block (with Nupercaine)" and to recommend such time-wasting and questionably effective measures as oxygen inhalation and elevation of the legs as the first with which to treat hypotension. The failure to use a vasopressor correctly or promptly has been the cause of several recent maternal deaths in our community

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CONTINUOUS CAUDAL ANESTHESIA IN OBSTETRICS

Observations of Results in Twelve Thousand Cases

JACOB HERZLICH, M D , Brooklyn, New York

(From the Beth-El Hospital)

IN OBSTETRICS a suitable pain-relieving agent is sought which will be safe for the mother and baby and will not interfere with the progress of labor Stoeckel in 1909 used caudal anesthesia in obstetrics to relieve labor pains with fair results [1] It was also tried by Cathelin in 1900 for surgical procedures involving the perineum [2] However, not until Hingson and Edwards described the method of continuous caudal anesthesia has there been a satisfactory obstetric analgesic and anesthetic [3]

We have used this method with the malleable needle technic as the method of choice at the Beth-El Hospital since February, 1943, and have applied it in over 12,000 instances We have found its utilization facilitates cervical dilatation, permits normal descent of the presenting part, diminishes blood loss, and has no untoward effect on the parturient mother or the fetus

Methods for control of pain during labor have heretofore rested in the hands of the obstetrician When labor was well established, the administration of drugs to obliterate the memory of pain, whether by mouth, subcutaneously, by rectum, or intravenously was relatively simple Although the same expert obstetric judgment is needed to determine the existence of favorable conditions for the administration of continuous caudal anesthesia, the technic of its administration need not necessarily be part of the duties of the obstetrician An anesthetist specially trained in caudal anesthesia assumes the responsibility for its administration

After properly introducing the needle, the anesthetist must be on the alert The judicial administration of the anesthetic fluid in fractional doses, testing for accidental puncture of the dura, obliteration of pinpricking pain in the perineal, vulva, symphyseal and suprasymphyseal areas, the appearance of rectal relaxation, the commencement of warmth in the lower extremities, and the cessation of uterine cramps, are some of his immediate duties In addition, he must be in constant attendance to add more anesthetic fluid when the pains return or the level of anesthesia falls much below midway between the symphysis and umbilicus He continues to watch the variations in the blood pressure, follows the progress of cervical dilatation and descent of the presenting part, and helps the patient turn from side to side Finally, when the patient is ready for delivery and the last dose adequate for completion of the delivery is administered, he removes the needle and transports the patient to the delivery room While delivery is in progress, he is constantly in attendance and does not leave until the third stage of labor is completed and the pelvic floor is repaired The cooperation and teamwork between the anesthetist and obstetrician is necessary for the safe and effective conduct of labor with caudal block as the obstetric anesthesia

Thus, the anesthesia department partakes in the management of the obstetric patients during labor and delivery At the Beth-El Hospital we have provided the obstetricians with continuous attendance by an anesthetist

The anesthetist partakes in the management of the patient undergoing a surgical procedure The expectant mother, while in labor, is accorded the same undivided attention of an expert anesthetist as if she were undergoing a surgical operation

The anesthesia department integrates its work with the obstetric division Three anesthetists are assigned daily Thus, one anesthetist is always available during the twenty-four hour period

Successful results in caudal anesthesia depend on personnel employed in its administration. The anesthetist administering this type of anesthesia in obstetrics must not only be a good anesthetist but must have a good knowledge of obstetrics He should not have to depend on the obstetrician to inform him when a caudal is to be started He should be fully capable of determining position and descent of the fetus and dilatation of the cervix At Beth-El Hospital, all the anesthetists on the staff have had a thorough training in obstetrics as well as in caudal anesthesia

Poor results in caudal anesthesia have resulted from superficial and inadequate training given to anesthetists and obstetricians This training has been as short as a two-week course This brief period does not give the obstetrician sufficient knowledge of anesthesia, nor does it give the anesthetist a thorough background of obstetrics

Caudal anesthesia in obstetrics has been condemned by many physicians because of isolated cases where complications have arisen during the

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the prepared caudal solution should be intermittently injected in appropriately small doses, e g, 15 to 45 mg Metycaine

When fractional spinal anesthesia is indicated, I prefer the Tuohy technic with the ureteral catheter to the Lemmon malleable needle The latter requires a special support for the back, sometimes the needle slips out of place while the patient is being turned, occasionally and inexplicably the anesthesia is very slow in developing Most important, however, is the fact that the Lemmon technic may cause permanent neurologic damage by the malleable needle bending into and traumatizing the cord or nerve roots One death and two permanent major neurologic sequelae have occurred in three unpublished cases handled by experienced anesthesiologists The Tuohy technic has not been associated with such damage and seems much less likely to be able to cause it

Fractional spinal anesthesia is objectionable for the ordinary cesarean delivery because the required large dural puncture is followed by a 40 per cent incidence of postspinal headache in our use of the catheter method, unless special measures are taken to prevent headache [16]

Single Dose Technic

The single-dose technic of spinal analgesia for cesarean section is preferred in 95 per cent of our patients It is simpler, quicker, and more dependable The safety of the single-dose technic for the great majority of patients in careful hands is just as great as that of the fractional method, but with careless or inexpert management a single-dose method is more dangerous than a fractional technic My personal experience with the single-dose method for cesarean sections includes more than 450 cases There has not been a single maternal or fetal death or permanent complication attributable to the anesthesia

For cesarean section, I use the same technic as for vaginal delivery except that I prefer to weight the 1 cc of 1 200 Nupercaine with 50 to 75 mg of procaine hydrochloride crystals dissolved in 1 to 1 5 cc spinal fluid The procaine-Nupercaine combination enables the surgeon to start promptly, without the delay and uncertainty that attends the waiting period associated with a glucose-Nupercaine mixture

The spinal puncture needle for the single-dose method of spinal anesthesia for cesarean section need be only a 22 or 24 gauge inasmuch as the infusions which cesarean patients regularly receive minimize the headache problem when the needle is not of large gauge.

Every cesarean patient has an infusion started immediately after the anesthetic is injected In poor risk cases the infusion is begun before the spinal Control of the circulation is essential and is secured by ephedrine sulfate or neosynephrine sulfate administered hypodermically ten minutes before the spinal, unless contraindicated by hypertension or cardiac failure Vasopressor drugs needed after the onset of spinal anesthesia should be given intravenously

Care must be taken to avoid severe hypertension produced by the inadvertent addition of the vasopressor effect of hypodermic or intrauterine injected pituitrin or intravenous ergotrate, ordered by the obstetrician, to that of the ephedrine or neosynephrin used by the anesthetist Cerebral complications have resulted from the acute hypertension so induced [17]

Summary

Spinal anesthesia has reached a new and greater peak of popularity in obstetrics as a result of the use of Nupercaine-glucose for analgesia in labor and vaginal delivery and the development of fractional spinal anesthesia for cesarean section. The technics of single-dose and fractional methods of anesthesia for abdominal and vaginal delivery are discussed and compared, their indications and complications are described

The leakage theory of postpuncture headache is explained and utilized in correlation with the importance of hydration in influencing the restoration of normal cerebrospinal fluid volume and pressure Headache following spinal analgesia for vaginal delivery is practically prevented by the use of a 26-gauge needle and increased hydration by oral fluids

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due to excessive fat pads, atresia of the sacral hiatus, distortion and malpositions of the bony landmarks in the sacrococcygeal area, or faulty technic We also included in this group the instances where spinal fluid was obtained during the initial insertion of the needle

Three of our five localized infections occurred in our first 250 cases Undoubtedly, this was due to the deposition of anesthetic fluid subcutaneously, on the erroneous assumption that the needle was in the caudal canal The infections were noted late in the postpartum period and were treated by wide incision and drainage There were 28 instances of dural puncture Spinal fluid was noted on introduction of the needle, and the procedure was discontinued We had eight instances of inadvertent dural puncture This accident was noted, despite absence of spinal fluid on original insertion of the needle and after the first dose of 8 cc of 1½ per cent Metycaine was given The location of the needle in the subarachnoid space was recognized by early sudden cessation of pain, inability to move the legs, and marked early rectal relaxation In each case, the needle was withdrawn, and the patient was placed in Fowler's position to prevent the anesthesia from rising, and the patient was delivered under this inadvertent spinal anesthesia These instances emphasize the importance of fractional administration of the first 30 cc of Metycaine

High level caudal analgesia was noted in 15 cases One was due to a faulty valve which allowed the reserve solution to siphon into the caudal canal In order to avoid this difficulty the reserve solution should be placed on a level lower than the caudal canal The other high levels developed despite slow administration of the solution and only when indicated, i e , when the pains returned or the level of anesthesia fell much below the umbilicus This complication was probably due to the small capacity of the epidural space The patients in whom high level anesthesia developed became restless and anxious Some complained of precordial pressure, numbness in the upper extremities, dizziness, difficulty in respiration, and nausea and vomiting There was a moderate fall in blood pressure in these cases (20 to 30 mm) This condition was combated by elevation of the head and trunk to permit downward gravitation of the anesthetic fluid Ephedrine sulfate ⅜ grain was given by hypodermic Oxygen inhalation was given to the few patients that showed some respiratory embarrassment These symptoms lasted only a short time, labor continued, and delivery was effected without any further incidents To reduce the incidence of high level caudal anesthesia, we have limited all subsequent injections to 10 cc instead of the usual 20 cc

We have had no nerve injuries in any of our patients who received this method of analgesia We have had one broken needle which was easily removed There were no instances where the needle caused injury to any of the neighboring organs or to the fetus because of false passage of the needle

Contraindications to the use of caudal anesthesia, such as unengaged presenting part, transverse presentation, antepartum bleeding, localized infection in area, excessive fat pad in area, bony malformations, and poliomyelitis, are to be considered When the presenting part is floating or not definitely engaged, especially in cephalic presentation, pelvic delivery may be in doubt It is, therefore, advisable to wait until cephalopelvic adequacy is assured by additional trial of labor In transverse presentation, internal podalic version may be needed to terminate labor To accomplish this, one needs a relaxed uterus, and, therefore, it is best to use general anesthesia A similar procedure may be needed in management or termination of labor in cases of antepartum bleeding where either placenta previa or abruptio placenta is encountered

Caudal anesthesia should not be given to patients having a pilonidal cyst or sinus Similarly, when an excessive fat pad is present, this form of anesthesia should not be attempted, unless the landmarks can be palpated We do not use this form of analgesia in lower extremity muscular atrophy following poliomyelitis

A high incidence of operative deliveries results from the use of any form of obstetric analgesia The increase, however, is limited to low forceps or outlet forceps The use of low forceps and episiotomy on all primipara has become routine, even when no analgesia is used during labor

We have also noticed a greater incidence of major operative deliveries, such as manual rotation, forceps rotation, and mid forceps This is probably due to our policy of early interference We firmly believe that, when the cervix is completely dilated and a short waiting period does not correct the malposition, delivery should be undertaken soon to prevent soft tissue damage and fetal embarrassment Bill has long advocated a watchful waiting policy during the first stage of labor in these malpositions but insists that early correction and delivery after complete cervical dilatation is beneficial both to mother and infant [5]

Breech extraction or spontaneous breech delivery can be performed with ease under this form of analgesia However, when the breech is high in the pelvic and where manipulation to break up a frank breech may be necessary, it is not advisable to use continuous caudal anesthesia for delivery Uterine relaxation is necessary during

administration of caudal anesthesia I attribute the majority of these poor results to poor judgment and insufficient training

The question that has often arisen among patients is, "Am I a suitable candidate for caudal anesthesia when I give birth?" According to a statement made by Dr Hingson in 1944, about 40 per cent of the women delivered in well-staffed maternity hospitals present contraindications prohibiting the successful use of continuous caudal analgesia [4] He further points out that 70 per cent of American births are eliminated from this type of anesthesia because it is not a procedure to be used in the home and the poorly-staffed hospital He further states that if every hospital in this country used continuous caudal analgesia in every suitable case, only 12 per cent of the parturient women would be treated by this method

The contraindications which make up 40 per cent of hospital deliveries, according to Dr Hingson, are as follows easy and rapid labor, 10 per cent, deformities of the sacrum, 10 per cent, fear, 10 per cent, obesity, 3 per cent, local infection, 2 per cent, and anemia, placenta previa, premature separation of placenta, disproportion, and sensitivity to anesthetic agent, 5 per cent

When I started the caudal service at Beth-El Hospital, I found these statistics to be fairly accurate, but at present there is a marked deviation Of all our vaginal deliveries approximately 90 per cent receive caudal anesthesia

The 10 per cent of the cases that do not receive caudal anesthesia are made up as follows

1 Easy rapid deliveries—4 per cent Our maternity cases usually enter the hospital early in labor, and the anesthetist is always present to administer the caudal immediately if necessary

2 Deformities of the sacrum—not more than 1 per cent In 1943, when I first started to administer caudal anesthesia in obstetrics, I found that over 20 per cent of the patients had deformities of the sacrum This high percentage gradually decreased as time elapsed, and at present it is rare to find a case in which the caudal canal cannot be entered

3 The element of fear does not exist among the patients at our hospital Our obstetricians instill confidence in the safety of caudal anesthesia to the mother and baby Consequently, the woman in labor is free from worry and fear She is cooperative and helpful However, obstetricians at other institutions have not given such confidence to their patients A flagrant example to be cited is one in which a well-known obstetrician, upon being asked by his patient whether she would receive caudal anesthesia during labor, exclaimed, "How would you like to have a long, sharp needle jabbed mercilessly into your spine?" Thus, we can see that fear of caudal anesthesia is created by physicians who are not thoroughly familiar with this type of anesthesia

4 Obesity—Approximately 1 per cent of our patients do not receive caudal anesthesia due to their marked obesity

5 Local infection and disease—approximately 3 per cent of our patients do not receive caudal anesthesia due to local infection or disease

It has been maintained that caudal anesthesia should be administered only in well-staffed maternity hospitals This contention is wrong At the smaller hospital, where there is inadequate hospital personnel, it would be advantageous to the expectant mother to receive caudal anesthesia and thus be closely watched by the anesthetist In this way, early discovery of a fetal distress might be made In addition, the anesthetist is present at time of delivery and thus insures the well-being of the newborn should resuscitation be necessary

We have applied this form of anesthesia and are at present reporting our observations and results in the first 12,000 cases (Tables 1 and 2) There was a total of 433 patients where the anesthesia was classified as a failure The partial failure were in cases that had painful uterine contraction during the running of the continuous caudal anesthesia, but actual delivery and repair were free from pain Many of our partial failures were encountered in patients who had received previous caudal anesthesia We attribute these secondary failures to thickening and fibrosis of the connective tissue attachments between the inner wall of the vertebral canal and the dural sac, thus preventing the upward diffusion of the drug and resulting in ineffective blocking of the eleventh and twelfth dorsal nerves The other partial failures may be due to (1) unusually large caudal canal, (2) open roof, (3) wide dural space, or (4) dislodgement of the needle The complete failures may be

TABLE 1—Effectiveness of Continuous Caudal Anesthesia

	Number of Cases	Per Cent
Complete relief of pain	11 567	96 4
Failures	433	3 6
Partial relief of pain	275	2 3
Complete failures	158	1 3

TABLE 2—Complications During Administration of Continuous Caudal Anesthesia

Complications	Number of Cases
Subcutaneous localized infection	5
Dural puncture	28
Inadvertent dural puncture	8
High level caudal anesthesia	15
Severe drop in blood pressure	22
Nerve injury	0
Broken needles	1
False passage	0

INHALATION ANESTHESIA IN OBSTETRICS

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DURING the past one hundred years inhalation analgesia and anesthesia have played an important role in the relief of pain associated with childbirth In 1847, shortly after the discovery of anesthesia, ether and chloroform were introduced in the conduct of labor by Sir James Y Simpson The use of anesthesia in obstetrics became widely recognized and gained impetus following the use of chloroform in the delivery of Queen Victoria's seventh child in 1853 Gradually, other agents were added, and, with increased knowledge, improved apparatus, and new technics, inhalation analgesia and anesthesia became pleasanter, safer, and more versatile Although new caudal, spinal, and block technics have been advocated and popularized in recent years, inhalation anesthesia is employed in the bulk of obstetric deliveries today It is generally simpler, easier, and quicker in application and safe in the varying demands of obstetrics

Pharmacologic Characteristics

Let us consider some of the pharmacologic characteristics of the various inhalation agents that are most frequently employed in obstetric anesthesia These consist of the volatile liquids ether, chloroform, and vinethene, and the gases nitrous oxide, ethylene, and cyclopropane

Ether, which is generally considered the safest of all agents, is unpleasant to inhale, irritating to the respiratory passages, and usually too slow in action when used intermittently for pain relief If the pain is of the explosive type, it is almost useless unless a state of near-anesthesia is maintained with a resulting decrease in uterine contractions and an increase in nausea, operative interference, and fetal apnea However, ether is very safe, requires the least experience for its successful administration, and is very useful when combined with one of the gaseous agents for added relaxation in operative deliveries or cesarean section

Chloroform is sweet, pleasant, smooth, quick, and effective in action When used as an analgesic, it most closely duplicates nitrous oxide Transmission from the analgesic to the anesthetic state and the reverse is accomplished smoothly and quickly Administration should be careful, steady, and with adequate oxygenation Chloroform's toxic effects, especially on the liver and heart, have generally condemned its use Experimentally, the effect of chloroform on the liver may be minimized or eliminated entirely by volatilization in oxygen, a high carbohydrate diet the day preceding its administration, and by the proteins methionine and, to a lesser extent, cystine when given before or within four hours of chloroform anesthesia Anoxia, starvation, and high fat diets increase the toxic effect Pregnancy, of itself, does not offer any special protection in so far as the liver is concerned

Vinyl ether or vinethene is a slightly irritating, extremely volatile liquid which has been used to a limited extent in obstetrics Its use has been generally restricted to one-half hour due to its toxic effect on the liver The combination of 25 per cent vinyl ether with 75 per cent ethyl ether was suggested by Bourne, McDowell, and Whyte as a practical solution to the problem of tremendous waste from rapid volatilization which occurs when vinyl ether is used alone [1] Excessive mucus is sometimes an undesirable complication

The narcotic gases, nitrous oxide, ethylene, and cyclopropane, provide the anesthesiologist with an agent of low toxicity which can rapidly provide pain relief during labor with control from moment to moment These gases are apparently unaltered in the body and are eliminated unchanged The various organs like the liver and kidneys are exposed to a minimum of functional disturbance, and damage to the various tissues does not occur unless these gases are administered with inadequate amounts of oxygen The passage from analgesia to anesthesia and the reverse may be accomplished quickly so that the maximum effect of a minimum amount of the drug is readily obtainable Obvious limitations to the administration of narcotic gases during a long labor are the amount of apparatus and personnel involved, as well as the time and economic factor

Nitrous oxide is a slightly sweet gas, nonirritating and nonflammable, and is our best agent for providing obstetric analgesia It is pleasant and safe and may be given continuously or intermittently for pain relief Its use by the continuous method with oxygen and air has been described and recommended by Sword [2] Usually it is given intermittently in concentrations of 50 to 100 per cent depending upon the rapidity, severity, and duration of pain perception by the patient Where surgical anesthesia is necessary,

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such a procedure, and with this method of analgesia the powerful uterine contractions continue at frequent intervals and interfere with the maneuver

We found that there was no delay in initiation of respiration in the newborn when this form of analgesia was used The infant in many instances emits a cry even before delivery is complete This is particularly useful in managing the fetus in premature labor Labor continues painlessly under this form of analgesia until full dilatation is reached The perineum is relaxed, and the abdominal muscles are out of play, thus eliminating bearing down pains No pressure on the head is present, thus avoiding possible intracranial injury Delivery by early low forceps is possible, and no inhalation anesthesia is necessary for the termination of labor The premature fetus is spared the narcotizing effects for relief of pain during labor and the additional narcosis of a general anesthesia during termination of labor

Summary and Conclusions

1 Relief of pain during labor by obliterating the memory of pain has been tried by many obstetricians with varying success

2 Absolute requirements for the safe and efficient administration of continuous caudal anesthesia are adequate trained personnel, cooperation between anesthetist and obstetrician, and proper organization for the administration of the anesthetic

3 The anesthetist must be in constant attendance during the entire time of the administration of anesthesia and during delivery and repair There must be a separation of duties and responsibilities of the anesthetist and obstetrician, although each must have a working knowledge of the other's experience

4. Continuous caudal anesthesia was attempted in 12,000 cases Complete relief of pain was obtained in 11,567 patients or 96 4 per cent

5 The complications encountered are enumerated and their management and prevention discussed Contraindications to the use of continuous caudal analgesia are emphasized in order to avoid these complications

6 The entire labor is markedly shortened Cervical dilatation is facilitated, thus shortening the first stage, the second stage is frequently delayed and must be terminated by low forceps, the third stage is definitely shortened and uncomplicated The entire labor and delivery can be accomplished under this form of analgesia.

7 There is no delay in initiation of respiration in the newborn Fetal distress is very rare It is extremely beneficial to the premature during labor and delivery

8 The absolute freedom from pain during labor, the lack of interference with the processes of labor, the beneficial effect on the fetus, and the ability to complete the delivery under this form of anesthesia convinces us that continuous caudal anesthesia is the method of choice to relieve pain during childbirth

557 East 52nd Street

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MIRACLE DRUGS GREATLY REDUCE DEATHS FROM MENINGITIS

A method of penicillin therapy new in the treatment of meningitis, the crippling and formerly highly fatal inflammation of membranes covering the brain and spinal cord, has reduced the death rate from one type of the disease from 62 to 36 per cent, say four Washington, D C , doctors The doctors—Harry F Dowling, Lewis K. Sweet, Harold L Hirsh, and Mark H Lepper—make their report in the March 19 issue of the *Journal of the American Medical Association*

In a series of 22 patients with pneumococcic meningitis who were given large injections of penicillin in the muscles every two hours, the death rate was 36 per cent. Twelve of these patients also received sulfa drugs, however, sulfa drugs do not seem to be necessary when large doses of penicillin are used, the doctors point out In an earlier series of 66 patients treated with the older method of a smaller amount of penicillin given systemically plus repeated injections of penicillin into the cavity that surrounds the brain and spinal cord, the death rate was 62 per cent Among 434 patients with meningococcic meningitis, the most frequent type of the disease, the death rate was only 8.9 per cent. These patients were treated with sulfa drugs and, in some cases, with the new penicillin therapy

obstetric anesthetics It was used particularly in those deliveries requiring extreme relaxation of the uterus such as podalic version and extraction or where birth was imminent and anesthesia started in bed or on the cart The amount of chloroform used is generally less than one ounce, and it is administered with the open technic, a Yankauer mask being used and held at least one finger breadth away from the face The eyes are protected with a folded towel The patient's pulse, color, respiration, and eye signs must be watched carefully Although we are mindful of its toxic effects, this agent has been safe and dependable in our hands In a survey of maternal mortality from 1941 to 1945 in Erie County by the Maternal Mortality Committee of the Buffalo Obstetrical Council, it was estimated that in over 50,000 chloroform anesthetics there had been only three deaths

In the 51 cesarean sections cyclopropane anesthesia was used for 42 and spinal anesthesia for nine Small amounts of ether or curare were used with the cyclopropane when additional relaxation was required Fetal loss consisted of three stillborns and one newborn death, none of which were related to anesthesia The stillborns included two cases of premature separation of the placenta with severe hemorrhage and one ruptured uterus The newborn death was a hydrocephalic baby which lived several hours

Pituitrin is not used because of its undesirable action on the coronary arteries, especially when the heart is under the effect of a drug such as cyclopropane or chloroform Such drugs as pitocin or the intravenous ergot preparations are easily available and do not have the undesirable effects noted with pituitrin

Summary

Satisfactory analgesia and anesthesia can be provided in obstetrics by inhalation methods with safety for mother and baby The agent and technic best suited to the obstetric procedure and the obstetrician should be used

Procedure at the Deaconess Hospital has been described and the statistics for 1948 presented

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"DOCTOR JONES" SAYS—

The scientific studies they've been making of alcoholism here of late—why some people can drink in moderation and some others, the "alcoholics," can't take a drink without drinking to excess—it's interesting to consider how completely they've changed our conceptions of the causes of alcoholism When I was young the old idea still prevailed, pretty generally, that it was a matter of weak will power, moral delinquency, or just plain cussedness Today, as a result of the research and so on, practically all physicians believe it's a disease that's at the bottom of it

Most of the forty or fifty thousand members of Alcoholics Anonymous have accepted that view Of course some of 'em—it comes kind of hard to admit they're suffering from a "disease" They could call it a sickness, disorder, complex, it might sound better but it'd amount to the same thing

What kind of a disease it is well, we'll know more about that as the studies progress I suspect a majority of 'em, it's a psychoneurosis emotional conflicts based on repressed childhood memories They affect different people different ways fears of crowds, closed places, women, invalidism, stomach ulcers, compulsive tremors, compulsive drinking—I've seen all those just among my personal friends

Some alcoholics, possibly the majority, it could be lack of some internal secretion or vitamin—like in diabetes, pernicious anemia, night blindness, and the alcoholic neuritis we used to see commonly Heredity may figure in some cases Some—it could be mainly habit, like narcotic addiction, but it probably goes deeper'n that

They'll eventually find out the causes of alcoholism, then they should know better how to prevent and cure it

In the meantime, Alcoholics Anonymous, with its 'group therapy,' is keeping thousands of potential alcoholics on the Water Wagon The Water Wagon, by the way, didn't go out with the horse and buggy It's been motorized and completely modernized and is an increasingly commodious, respectable, and safe conveyance It offers special inducements to young people—*Paul M Brooks, M D*

small amounts of ether are usually added or a change made to cyclopropane if adequate oxygenation is to be maintained

Ethylene may also be used to provide analgesia, but it is only slightly more potent than nitrous oxide, much less pleasant to inhale, and inflammable, thereby providing an added hazard in its use

Cyclopropane is a potent inflammable gas capable of providing surgical anesthesia with adequate oxygenation Its potency and inflammability make it less useful for analgesia because of the danger of explosion with intermittent application and the ease of slipping into surgical anesthesia with resulting diminution of uterine contractions Cyclopropane is the only inhalation agent with which it is possible to preserve normal fetal respiration and still provide surgical anesthesia for the mother Delivery under cyclopropane anesthesia should be completed within fifteen minutes in order to minimize the possibility of fetal asphyxia, since it is estimated that in fifteen minutes the concentration in both fetal and maternal blood streams will be the same The favorable action of cyclopropane in the presence of shock and hemorrhage has been shown by Hershey and Rovenstine [3] In cardiac disease its smooth, quick induction reduces strain on the heart When irregularities are present, it is well to add small amounts of ether In cesarean sections cyclopropane is the preferred inhalation agent The addition of small amounts of ether or curare will provide additional relaxation whenever necessary The increased proportion of oxygenation possible during cyclopropane anesthesia is of added value in all instances

General Management

It does seem that the instruction of expectant mothers as to what happens and as to what they should do in the normal physiologic process of having a baby is too often neglected As a result, they are fearful, may not cooperate too well, and sometimes eat too much after labor has started, thereby often prolonging labor and endangering their own health as well as their baby's The perception of pain varies tremendously in different patients They should be reassured and relief of pain provided by the judicious use of drugs so that the maximum comfort consistent with minimum effect on uterine contractions and fetal respiration will be provided Such drugs as Demerol, the barbiturates, scopolamine, paraldehyde, and opiates are used to provide analgesia, amnesia, and comfort during labor Morphine is usually not given within four hours of anticipated delivery

As the second stage continues and if the ordinary analgesic drugs are not providing sufficient relief, nitrous oxide, intermittently or continuously administered, will provide safe analgesia The patient should be instructed to bear down with the uterine contractions and so assist the uterus in its work With deeper anesthesia necessary for the expulsion or extraction of the baby, small amounts of ether are added, or cyclopropane is used if sufficient oxygenation is to be maintained Following delivery of the baby and while the cord is still pulsating, flushing the patient with oxygen will minimize any asphyxia should it be evident in the baby

Whenever resuscitation of the newborn is required, it should be done promptly, and artificial respiration applied immediately following aspiration of mucus, blood, or other secretions from the mouth and pharynx Oxygen may be administered by means of a mask and bag, infant resuscitator, or by a catheter in the trachea

The aspiration of vomitus is an ever-present danger in obstetric anesthesia, and it is well to consider each patient as having a full stomach unless proved otherwise Only through constant alertness, the immediate application of suction and gravity drainage, and the manual removal of food particles when necessary can this hazard be minimized

Procedure at the Deaconess Hospital

During 1948, there were 1,622 anesthetics given to obstetric patients at the Deaconess Hospital Of these, 1,592, or 98 4 per cent, were inhalation, and 28, or 1 6 per cent, were spinal There was one death due to aspiration Newborn deaths were 1 7 per cent and stillborn deaths 2 4 per cent Cesarean sections numbered 51, or 3 1 per cent, of the obstetric cases

At present Demerol is the favorite premedicant and analgesic in use at the hospital It is felt that this drug provides the greatest relief to the mother with the least disturbance to the progress of labor and to the baby The other drugs that are generally used, such as the barbiturates, scopolamine, and morphine, are only used to a limited extent

When the patients are ready for delivery, they are taken into the delivery room and cyclopropane administered by the carbon dioxide absorption technic Light surgical anesthesia is used and delivery usually accomplished with low forceps with or without episiotomy Added oxygen is administered immediately after the delivery while the cord is still pulsating In more difficult forcep deliveries small amounts of ether are added to the cyclopropane whenever additional relaxation is necessary

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main in the hands of properly trained and supervised anesthetists, because the only serious hazards of these methods reside in errors of anesthetic management Experienced and skillful administration is far better than giving antidotes

On the other hand, however, it is the obligation of the anesthetist to acquire that obstetric knowledge that is so essential for the properly timed beginning of caudal or spinal analgesia in labor, for the intelligent observation of the course of labor, and for the altered physiology of the patient From my own experience I know that anesthesiologists can readily be educated to serve in these ways I regret the tendency in many hospitals for caudal or "saddle block" analgesia to be controlled by obstetricians, because I am aware that most accidents with these technics have occurred in the hands of those unskilled in the prevention and treatment of anesthetic hazards But I hold the anesthesiologists to be partly responsible for this lamentable situation In these cases they failed to supply the demand with a trained and reliable service available to all members of the department of obstetrics at all times

At every delivery the obstetrician should have present some one with an adequate knowledge of fetal respiration and experience and skill in the technics of newborn resuscitation, including endotracheal intubation when necessary The department of anesthesiology must train or supply such expert personnel The specific person in the team may be a resident obstetrician or pediatrician. In my own practice, however, I regularly have an anesthesiologist present

Cesarean sections, especially of the extraperitoneal types, are best performed under spinal anesthesia Realizing that this is the method most easily applied incorrectly, I insist that it be administered only by an expert Spinal anesthesia owes its spotty reputation to the ease with which it can be abused by the uninformed or the inattentive anesthetist Tragic consequences can result from the omission of the safeguards of the technic or from the commission of anesthetic errors Spinal anesthesia is not a routine method, however With a completely competent and cooperative anesthetic service, I know that, if the patient is not suitable for a single dose method, she may receive a fractional spinal or continuous caudal technic or cyclopropane or pentothal and curare I might even be advised to use local anesthesia In any case I know that the patient is individualized for the choice of anesthetic technic Furthermore, the anesthesiologist considers his duties to include not only the administration of analgesia and oxygen but also the restorative fluid and drug therapy as indicated by the changing medical status of the mother In addition, he assumes the care of the newborn so that the airway is cleared immediately, good oxygenation is secured promptly, and optimum pulmonary ventilation is stimulated without delay The anesthesiologist at a cesarean section, even more than at a normal delivery, should be expected to diagnose and prescribe for the continued maintenance of adequate respiration and circulation until the newborn is under the care of the nursery pediatrician The anesthesiologist's extensive experience with subnormal states of respiration and circulation should be applied more often to the safeguarding of the newborn's critical first twenty-four hour period

The obstetrician is aware that hemorrhage is the greatest single cause of maternal death today It is, therefore, a great measure of comfort to the obstetrician and safety to the patient to have an anesthesiologist present who can be depended upon to infuse blood or plasma or stimulants immediately and in adequate amounts, regardless of the state of the veins and the circulation Even if it requires the sternal route and high pressure methods, the obstetrician is confident that the anesthesiologist can overcome hemorrhagic shock which develops more frequently and more rapidly in obstetrics than in general surgery

The obstetrician should have the interested and informed cooperation of the anesthesiologist so that he may avoid the many occasions for hazardous synergistic combinations which exist between obstetric drugs and anesthetic agents, e g , pituitrin and cyclopropane or pentothal, epinephrine and cyclopropane or chloroform, pituitrin and ephedrine Such service can be furnished only by anesthetists who are as interested in obstetric practice as they always are in surgical procedures

The anesthesiologist should be prepared to advise and evaluate the many and varied regimes of sedatives, narcotics, and amnesics recommended for first-stage relief of pain The optimum use of morphine, apomorphine, scopolamine, meperidine (Demerol), paraldehyde, barbiturates, and ether-in-oil requires thorough knowledge of their pharmacologic and clinical properties Any one or a combination of these drugs may be more suitable for a given patient It is the unique opportunity of the obstetrically minded anesthetist to be able to advise the many members of an obstetric service of the particular applicability of one or other of these depressants, which are the special interest of the anesthetist Apropos of this, I call attention to the valuable cooperation of the department of anesthesiology in the control of eclampsia by the use of ultra-short-acting barbiturates, curare, and continuous caudal anesthesia

THE OBSTETRICIAN'S VIEW OF MODERN ANESTHESIOLOGY

SAMUEL L SIEGLER, M D , F A C S , Brooklyn, New York

(From the Obstetrical and Gynecological Services of the Unity and Brooklyn Women's Hospitals)

IF ONE were asked, "What are the most important contributions to obstetrics in the past decade?", one might reply that they are those which have reduced maternal mortality in many communities to an almost irreducible minimum Some of the most important of these are adequate and intelligent prenatal care, availability of blood and of other fluid replacement therapy, introduction of the antibiotics and sulfa drugs, newer methods of cesarean sections, a better understanding of the fundamentals of the mechanism of labor, x-ray pelvimetry, and the proper selection of analgesic and anesthetic agents and the technic for the skillful administration for the relief of pain in childbirth In the obstetrics of the future, the control of the now too high infant mortality, approximating, in the United States, between five and six per cent of the newborn, must be given judicious and comprehensive consideration in the management of labor My role in this symposium is to give the obstetric viewpoint concerning obstetric anesthesia and analgesia—in essence, what does the obstetrician expect from modern anesthesiology to assist him in extending the margins of safety in the management of labor, thereby further reducing the morbidity and mortality of mothers and infants?

The significance of the introduction of a new factor influencing the outcome of labor, such as an analgesic or anesthetic drug, extends far beyond the relief of pain, and its consequences may be definitely measurable in terms of life, morbidity, and mortality of both mother and infant The rational practice and principles of the pharmacologic and clinical evaluation of these drugs, their successes or failures in obstetrics, is now the problem of the anesthesiologist, who should also be part of the obstetric team in any well-regulated obstetric clinic or hospital The knowledge, skill, judgment, and cooperation of the obstetrician, the anesthesiologist, and their associates are the first order of importance in determining the success of any type of analgesia-anesthesia in obstetrics Best results are obtained by adhering rigidly to the warnings, the contraindications, and the "don'ts" of any technic Enthusiasm for any method must be tempered by sound thinking, individualization, and judgment

It is my opinion that the public as a whole is not receiving the best service that modern anesthesiology is capable of supplying It has long been the custom to assign the least experienced anesthetist and the oldest anesthetic apparatus to the delivery room Many of the best hospitals in the country still provide their parturients with a quality of anesthetic service which would never be tolerated in their operating rooms Only because babies are born so commonly and not according to any schedule, even without anesthesia, has this deplorable situation been permitted to develop At least in hospital deliveries there is no longer any excuse for the continuation of this practice The obstetrician should demand that the department of anesthesiology be organized and directed along the lines approved by the American College of Surgeons and the American Hospital Association. The chief of the department should be a physician especially interested in anesthesiology, preferably a diplomate of the American Board of Anesthesiology or a fellow of the American College of Anesthesiologists, if the community can attract or develop one The department should be required to provide or supervise the analgesic and anesthetic requirements of the delivery rooms at all hours, just as it does for the operating rooms It is ironic to note that most anesthesiologists, especially if they are successfully established, refuse to become interested in the quality of anesthetic care in the delivery rooms of their own hospitals It is equally odd to observe an obstetrician accepting the barest minimum of anesthetic service at the hands of the most uninformed and the least useful person in the delivery room, whereas the same man, when acting as a gynecologist, is satisfied only with the services of an expert anesthetist

The obstetric service shqld be able to secure expert administration of any type of analgesia-anesthesia, especially caudal or spinal analgesia, for labor and delivery any time it is desired If the department of anesthesiology cannot offer these technics as a regular service, it is inevitable that they are unavailable when most needed for parturients complicated by heart failure, toxemia, hypertension, and in respiratory and metabolic cases, as well as in those abnormal conditions that might interfere with the lifeline of the fetus, as in premature separation of a placenta, eclampsia, dystocia, prolonged labor, etc It is the duty of the obstetrician to insist that these technics re-

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REPORT OF CLINICAL ANESTHESIA IN GYNECOLOGIC SURGERY

GEORGE H FINER, M D , SARAH JOFFE, M D , and S G HERSHEY, M D , New York City

(From the Department of Anesthesia, Beth Israel Hospital)

IT IS A commonly held impression that vaginal and perineal surgery is frequently accompanied by circulatory changes apparently related to the course of anesthesia For instance, at this hospital it has been noted consistently that more patients showed hypotensive episodes during and immediately following these procedures than was observed in other types of major surgery The etiology of these periods of hypotension is not well understood, although several suggestive factors have been measured Case and Stiles reported that the lithotomy position resulted in a greater reduction of vital capacity than any other commonly used operative posture [1] In addition, these operations involve a slow, continued blood loss not easy to estimate visually Omission of intravenous supportive therapy has been labeled one cause, and, inevitably, various anesthetic agents have been implicated It would seem worthwhile, therefore, to attempt to find any constant factors which might operate to produce these depressions of blood pressure

Hypotensive episodes were associated with three different clinical pictures Those patients whose pressure dropped at the beginning of surgery had almost all had spinal analgesia with a comparatively high sensory level This clinical picture is too familiar to dwell on here The patients were all treated satisfactorily with vasopressors and, in some cases, oxygen and suffered no ill-effects except for nausea and retching This type is not the primary interest of this report

A more significant type of circulatory depression occurred during operation In most cases these patients presented the clinical phenomena usually associated with traumatic or hemorrhagic shock. Pulse rate varied, depending on the anesthetic technic, but pulse pressure was always low The skin was cold, pale, and often moist, and conscious patients were usually restless and nauseated These patients were treated by administration of parenteral fluids, blood being the major agent ordinarily In most instances the hypotension was corrected without undue difficulty unless there had been frank hemorrhage In these latter cases adequate blood replacement was necessary before the blood pressure showed improvement (Figs 1 and 2)

The hypotension seen at the end of operation was of quite a different order Here it occurred suddenly, immediately after anesthesia was discontinued In some, anesthesia was deliberately stopped early (while the lithotomy position was still maintained) in order to see whether posture was a factor Regardless of position, this type of circulatory depression came on when the concentration of anesthetic agent was sharply reduced, as observed by Waters [2] A number of these patients presented the same picture as that described previously, but most showed no evidence of disturbance except for the hypotension The pulse was slow with good pulse pressure If conscious, the patients appeared comfortable The skin was warm and dry although pale This is in agreement with the discussion of "cyclopropane shock" by Dripps and many earlier authors [3] Correction of this condition proved relatively simple If there had been no undue blood loss, those patients who had no treatment beyond keeping them quiet had a return to normal blood pressure levels within fifteen minutes If a vasopressor was injected intravenously, as it was in others of this group, the blood pressure immediately rose to normal levels and remained there If the patient had suffered more than average blood loss, the administration of a vasopressor would, in almost all cases, cause a return to normal blood pressure levels with a concomitant rise in pulse rate, but in many cases this was only transitory In all these patients the administration of blood resulted in a rapid return to preoperative levels, even when only a small fraction of the previously lost blood had been replaced This improvement was maintained The general impression is that this terminal hypotension is of relatively little importance and can be treated with no difficulty and with certainty of response (Fig 3)

Analysis of Cases

The anesthesia and operative records of all patients undergoing major vaginal surgery in the Beth Israel Hospital during the past three years were analyzed This included 800 consecutive cases This short period of time was taken so that certain factors could be kept more constant For example, the surgery for private patients was done almost entirely by the same small group of gynecologists, the residents, although changing performed their surgery under the supervision of

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Anesthesiology May 4 1949

The obstetrician is easily satisfied with a very light level of inhalation anesthesia for the terminal phases of a normal delivery However, for internal versions or in the presence of complicating factors in the mother, e g, asthma, bronchitis, toxemia, heart disease, the problem of general anesthesia for vaginal delivery becomes as serious as for major surgery Aspiration phenomena tend to occur quite commonly in obstetric anesthesia Respiratory obstruction is a real hazard in the excited, unpremedicated parturient handicapped by a full-term pregnancy and the common tendency to obesity It is incumbent on the anesthetist to recognize these dangers and choose technics appropriate for the circumstances

A preventable anesthetic death or serious complication is always deplorable, but it is most tragic and lamentable when it occurs in obstetrics The abrupt substitution of an unexpected calamity for a long-awaited happy event shocks every member of the family and the hospital staff The obstetrician, dealing with risk in the lives of two patients, has a grave responsibility He should demand and obtain the services and cooperation of a real department of anesthesiology The teamwork which contains the best of modern anesthesiology is a necessity if we are to reduce further the maternal and fetal mortality and morbidity rates

As has been said of public health, good obstetric anesthesia is a purchasable commodity I have obtained it and brought the anesthesiologist to stay in the labor and delivery rooms by the invariable use of his services on an individual fee basis for which the patients are responsible The patients are aware of what they are getting and for what they are paying In 750 consecutive caudal and "saddle block" analgesias and in 136 consecutive cesarean operations, I have had no maternal mortality and a fetal mortality, both stillborn and neonatal, of 2 9 per cent

In most instances, the modern American woman demands some relief from the pain of childbirth, and this is quite understandable It is, therefore, the duty of all of us who are interested in this specialty to afford her this relief if it can be given without jeopardizing herself and her unborn child A newer knowledge has been created in obstetric analgesia and anesthesia, one that cannot be learned overnight The methods discussed here are not for the casual user and are for the most part hospital procedures There is no single form of pain relief best suited for every case

Conclusions

1 Individualization of the patient should be the inflexible rule in the administration of analgesia-anesthesia in obstetrics

2 Teamwork and cooperation between the anesthesiologist and obstetrician are the prerequisites for the well-being and comfort of mother and baby

3 A well-staffed maternity hospital should have trained personnel available who have the ability to administer expertly, efficiently, and skillfully any of the many anesthetic methods deemed necessary

4 In the obstetrics of the future such cooperation will prevent transplacental narcotization of the fetus, thus avoiding the risk of asphyxia neonatorum, and the mother will be spared much of the anguish, fear, and tension of pain in childbirth, thereby further reducing maternal mortality and morbidity

706 Eastern Parkway

CONTROL OF TUBERCULOSIS

Despite a falling death rate, tuberculosis is now "out of control" in New York City This statement was made by Drolet, statistician for the New York Tuberculosis and Health Association Department of Health figures for the first three months of 1949 show a 26 per cent increase in the number of new cases of the disease reported in the city over the same three months of 1948, a year in which 8,551 new cases were listed There were 2,476 new cases reported this year up to April 1, as against 1,959 for the first three months of last year On April 1, 1949, there were 19,284 known cases of the disease in the city

For the first quarter of this year, there were 866 deaths from tuberculosis recorded in the city, a drop of 658 from the same period of last year, or 24 per cent "The lower mortality may well represent more successful treatment of tuberculosis, particularly by newer surgical procedures and by the use of newer antibiotic drugs, such as streptomycin," Mr Drolet said "On the other hand, the conclusion is inescapable that the attack rate is much greater now than it was just one year ago We cannot overlook the probability that inadequate hospital facilities, plus the inadequacy of other means of isolation of infectious cases, may be in great part responsible for the situation being, for the time at least, out of control"—*May 18, 1949*

REPORT OF CLINICAL ANESTHESIA IN GYNECOLOGIC SURGERY

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IT IS A commonly held impression that vaginal and perineal surgery is frequently accompanied by circulatory changes apparently related to the course of anesthesia For instance, at this hospital it has been noted consistently that more patients showed hypotensive episodes during and immediately following these procedures than was observed in other types of major surgery The etiology of these periods of hypotension is not well understood, although several suggestive factors have been measured Case and Stiles reported that the lithotomy position resulted in a greater reduction of vital capacity than any other commonly used operative posture [1] In addition, these operations involve a slow, continued blood loss not easy to estimate visually Omission of intravenous supportive therapy has been labeled one cause, and, inevitably, various anesthetic agents have been implicated It would seem worthwhile, therefore, to attempt to find any constant factors which might operate to produce these depressions of blood pressure

Hypotensive episodes were associated with three different clinical pictures Those patients whose pressure dropped at the beginning of surgery had almost all had spinal analgesia with a comparatively high sensory level This clinical picture is too familiar to dwell on here The patients were all treated satisfactorily with vasopressors and, in some cases, oxygen and suffered no ill-effects except for nausea and retching This type is not the primary interest of this report

A more significant type of circulatory depression occurred during operation In most cases these patients presented the clinical phenomena usually associated with traumatic or hemorrhagic shock Pulse rate varied, depending on the anesthetic technic, but pulse pressure was always low The skin was cold, pale, and often moist, and conscious patients were usually restless and nauseated These patients were treated by administration of parenteral fluids, blood being the major agent ordinarily In most instances the hypotension was corrected without undue difficulty unless there had been frank hemorrhage In these latter cases adequate blood replacement was necessary before the blood pressure showed improvement (Figs 1 and 2)

The hypotension seen at the end of operation was of quite a different order Here it occurred suddenly, immediately after anesthesia was discontinued In some, anesthesia was deliberately stopped early (while the lithotomy position was still maintained) in order to see whether posture was a factor Regardless of position, this type of circulatory depression came on when the concentration of anesthetic agent was sharply reduced, as observed by Waters [2] A number of these patients presented the same picture as that described previously, but most showed no evidence of disturbance except for the hypotension The pulse was slow with good pulse pressure If conscious, the patients appeared comfortable The skin was warm and dry although pale This is in agreement with the discussion of "cyclopropane shock" by Dripps and many earlier authors [3] Correction of this condition proved relatively simple If there had been no undue blood loss, those patients who had no treatment beyond keeping them quiet had a return to normal blood pressure levels within fifteen minutes If a vasopressor was injected intravenously, as it was in others of this group, the blood pressure immediately rose to normal levels and remained there If the patient had suffered more than average blood loss, the administration of a vasopressor would, in almost all cases, cause a return to normal blood pressure levels with a concomitant rise in pulse rate, but in many cases this was only transitory In all these patients the administration of blood resulted in a rapid return to preoperative levels, even when only a small fraction of the previously lost blood had been replaced This improvement was maintained The general impression is that this terminal hypotension is of relatively little importance and can be treated with no difficulty and with certainty of response (Fig 3)

Analysis of Cases

The anesthesia and operative records of all patients undergoing major vaginal surgery in the Beth Israel Hospital during the past three years were analyzed This included 800 consecutive cases This short period of time was taken so that certain factors could be kept more constant For example, the surgery for private patients was done almost entirely by the same small group of gynecologists, the residents, although changing, performed their surgery under the supervision of

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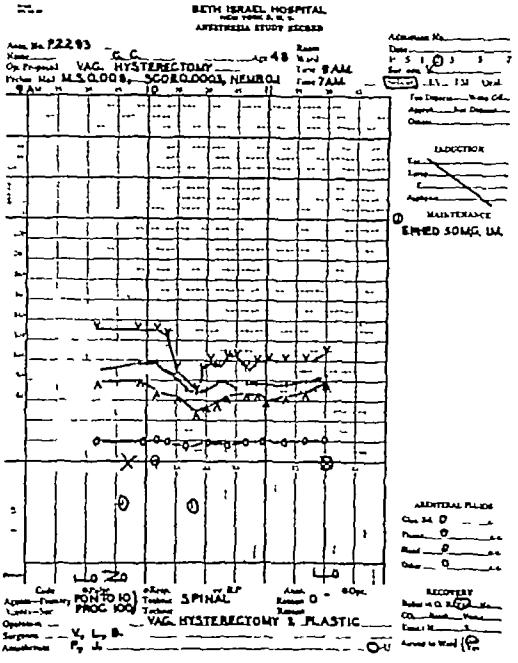


FIG 1 Type of hypotension occurring during spinal analgesia

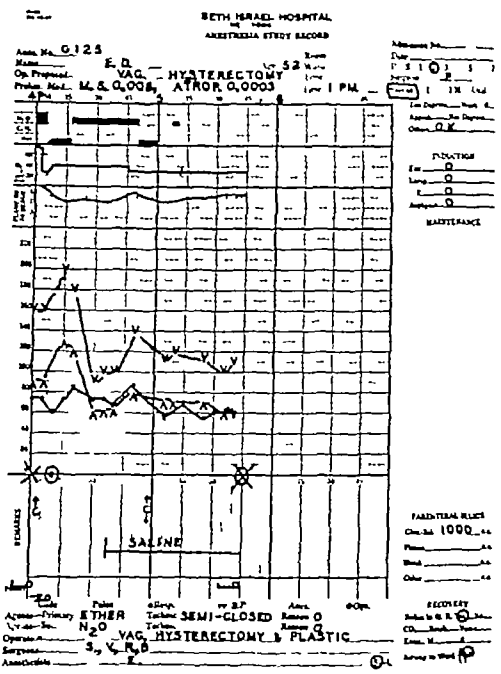


FIG 2 Type of hypotension occurring during ether administration

the same staff gynecologists A similar situation applied to the anesthetists The operative procedures, quite standardized in this hospital, were not significantly altered in this period Two changes that did occur were the more frequent use of intravenous supportive therapy and a shift from spinal to inhalation anesthesia as the method of choice For the past two years the trend has been to use cyclopropane more frequently and almost always in cases in which the patient was a poor risk or where excessive hemorrhage might be anticipated

Of 800 cases, 235 (29 per cent) showed a significant fall in blood pressure during or immediately after operation (A significant fall was recorded if the mean pressure dropped 20 per cent below the initial reading or if a smaller fall in pressure was accompanied by a low pulse pressure or other signs of disturbed circulation) There were 31 patients showing hypotension within five minutes of induction of anesthesia, 26 of these had received spinal analgesia with sensory levels above the sixth thoracic nerve This is a not uncommon effect Of the others, four were patients who were markedly apprehensive and had initial blood pressures above their usual levels The remaining patient received a relative overdose of anesthetic agent during the induction. As stated before, this type of hypotension is of secondary interest here.

Of more pertinent interest were 123 patients who developed hypotension during the operation and 81 more whose blood pressure fell when anesthesia was discontinued At first an attempt was made to correlate pulse rate changes with the patient's condition, but it was found that of the 235 cases only 20 showed a pulse rate increase of more than 20 per minute, even when the blood pressure fell to very low levels Almost all of these 20 patients had relatively large blood losses It seemed from this that pulse rate by itself is not a reliable index of the state of the circulation in these circumstances

The patients were then grouped in other ways in order to uncover the variables which might be correlated with hypotension

Age.—The scarcely surprising conclusion from the figures shown is that patients under forty withstand major surgery better than those over forty (Table 1)

Physical Status.—Patients were grouped according to the standards of the American Society

TABLE I.—CORRELATION OF AGE WITH HYPOTENSIVE EPISODES

Age	Number of Patients	Per Cent Showing Hypotension
20 to 30	27	15
30 to 40	165	21
40 to 50	306	32
50 to 60	201	32
60 to 70	89	32
70 to 80	11	27

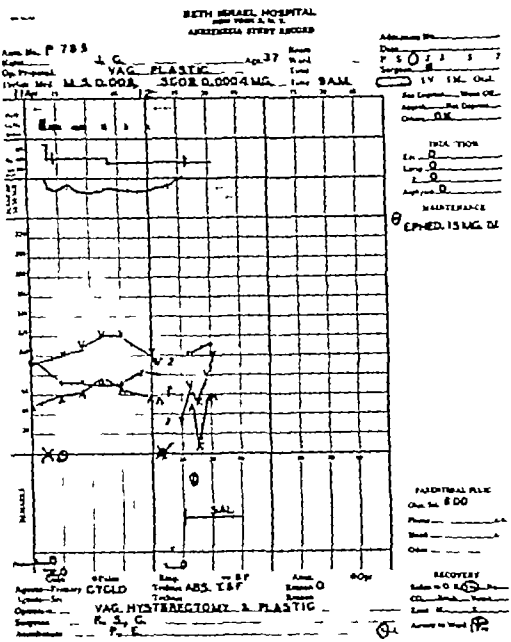


FIG 3 Type of hypotension occurring at end of cyclopropane administration

of Anesthesiologists in which groups I, II, and III correspond to good, fair, and poor risks These results were similar to those found in other types of surgery (Table 2)

Operating Time —These figures would indicate that operating time was not an important consideration, although the cases lasting less than one hour showed up to slight advantage (Table 3)

Surgeons —As was expected, cases done by the staff gynecologists had hypertension in 26 per cent, while cases done by residents under supervision of the same surgeons showed hypotension in 34 per cent

Parenteral Therapy —In the period covered by this study there was a change in supportive therapy Until 1947, parenteral fluids were given

TABLE 2 —RELATION OF PHYSICAL STATUS TO HYPOTENSIVE EPISODES

Physical Status*	Number of Patients	Per Cent Showing Hypotension
I	340	26
II	246	36
III	14	37

* Classification of American Society of Anesthesiologists

TABLE 3 —RELATION OF OPERATIVE TIME TO HYPOTENSIVE EPISODES

Operative Time (Minutes)	Per Cent Showing Hypotension
Less than 60	26
60–90	34
90–120	31
120–150	42
Over 150	33

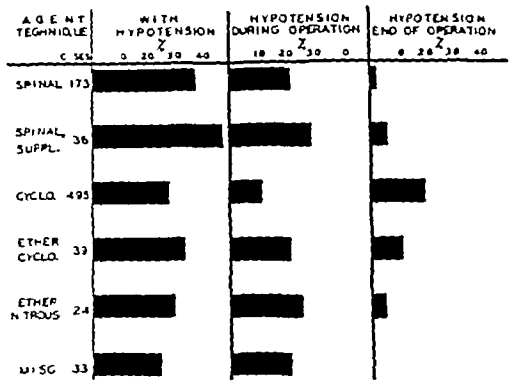


FIG 4 Frequency and time of hypotension correlated with agent

during operation only if it was deemed necessary because of a change in the patient's condition During part of 1947 and all of 1948, most patients came to the operating room with infusions For the most part these were of saline solution. In 1946, for example, there were 222 cases of major vaginal surgery, and only 86 of these patients received parenteral fluids Hypotension occurred in 30 per cent of the cases In 1948, on the other hand, of the 220 cases 183 had infusions, yet, hypotension was seen in 31 per cent Thus, the use of an electrolyte solution, of itself, did not seem to stabilize the circulation It was our impression that blood given throughout the operation was of much greater benefit, but because of the possibility of side-reactions and the presence of economic obstacles it was impractical to use blood prophylactically, except in those patients who presented severe anemia at the time of operation

The outstanding difference was noted in the frequency and time of onset of hypotension as correlated with the various anesthetic agents From Fig 4 it can be seen that more patients developed hypotension during spinal anesthesia (especially when supplemented by another agent) than with inhalation agents Characteristically, hypotension during spinal and ether anesthesia occurred during the operation, while hypotension with cyclopropane was seen most often at the end of operation, the so-called "cyclopropane shock." When cyclopropane and ether were both used, the effects of each seemed combined, but the addition of cyclopropane appeared to delay the hypotension as long as the drug was present

There were very few major postoperative complications in the series No deaths occurred Of 800 cases, 22 developed major complications Of these, only eight showed blood pressure falls at the

time of operation Complications included thrombophlebitis in three patients, with pulmonary embolus following in two of them Three patients developed pneumonia, and one had a coronary occlusion postoperatively There were three cases of severe distention and two with unduly protracted urinary retention Two patients developed neuroses, and eight had severe prolonged headaches following spinal anesthesia All agents were involved, and in this small number of complications no correlations could be made for the headaches

Comment

The development of the anesthetic management in this group of cases is of some interest With the change to the use of cyclopropane as the inhalation agent in the majority of patients, it was observed that hypotension at the close of operation occurred more frequently This seemed to be the most important factor since age, physical status, and duration of operation, although significant, did not account for the high incidence of hypotension Furthermore, the routine administration of glucose and saline infusions did not seem to be efficient prophylactically It was decided, therefore, that ether should be used as the primary agent in major vaginal procedures in order to see if this phenomenon could be avoided

However, as shown in this analysis, hypotension occurred even more frequently with ether anesthesia or with spinal analgesia, but it took place during the operation and was accompanied by signs of circulatory distress in the patient Cyclopropane, on the other hand, appeared to delay the onset of hypotension and convert it to a relatively benign state but did not minimize its frequency Hershey *et al* have shown that normal compensatory reactions to hemorrhage, as measured in the peripheral circulation, are depressed less by cyclopropane than by ether [4] Spinal analgesia, too, by blocking sympathetic pathways, retards compensatory responses These clinical results seem to agree with this interpretation, in that circulatory depression seldom occurred while cyclopropane was being administered, and, if depression did occur when cyclopropane concentration was lowered, it was ordinarily not accompanied by other signs of shock. In fact, this condition may often be undetected if blood pressure is not checked at the conclusion of the operation

Finally, the response to treatment was rapid and uniformly good We feel that, considering the total effect on the patient, cyclopropane produced less derangement of protective mechanisms than the other agents or technics

Summary and Conclusions

The hypertension often seen during or immediately following vaginal surgery was not correlated with postoperative complications

Blood pressure falls were seen more often in patients over forty, in poor risk patients, and in operations more than one hour in duration.

There was more hypotension when spinal analgesia was used, especially if supplemented by other agents, and this occurred during the operation Patients receiving ether reacted in much the same manner

With cyclopropane fewer developed hypotension during operation although more was seen at the conclusion of cyclopropane administration However, this condition was easily treated by vasopressors, blood, or rest in bed and was seldom accompanied by other signs of shock

Discussion

Lester C Mark, M D , *New York City* (*By invitation*) —This has been a searching inquiry into the etiology of hypotension associated with gynecologic surgery As has been indicated, the fall in blood pressure encountered with spinal anesthesia has been well-documented and needs no further comment The mechanism responsible for the hypotension which may be seen with general anesthesia is less clearly understood The authors have suggested, as contributing factors, the decrease in vital capacity produced by the lithotomy position and the continued, almost unnoticed, blood loss which may occur during these operations It is very possible that the manipulations involved, such as the exertion of pressure with retractors on the vaginal walls and of traction in the cervix, may stimulate vasodepressor reflexes analogous to those usually associated with surgical procedures within the abdomen It was mentioned here that, unless gross hemorrhage had occurred, the pulse rate rarely increased during the hypotensive episodes but usually decreased or remained unchanged This is evidence in favor of a reflex mechanism Burstein reports good results with curare in the treatment of traction and other reflexes, it would be of interest to investigate its use in these cases

The difference in time relations of the hypotension observed with cyclopropane and with ether is of interest We would anticipate a lag in the appearance of an adverse circulatory reaction with cyclopropane because of the lesser depressant effect exerted by this agent on the homeostatic mechanisms concerned The finding that the incidence of hypotension is distinctly less with cyclopropane than with ether suggests that the concept of "cyclopropane shock" does not apply here It seems more likely that the same factors responsible for the blood pressure fall with ether operate also with cyclopropane, but their effects are masked for the duration of the anesthesia by the beneficent action of cyclopropane on the circulation

The delayed onset of hypotension with cyclopropane has been demonstrated by the authors to be in

dependent of postural changes However, in the presence of impaired vasomotor compensatory mechanisms, as with high spinal or deep ether anesthesia, circulatory embarrassment may be directly attributable to the change from the lithotomy to the horizontal position The resultant disparity between the relatively fixed volume of circulating blood and the now increased volume of the functional vascular bed may readily cause a considerable fall in arterial pressure

Finally, it may perhaps be worthwhile to reiterate the dictum that extremes of position on the operating table should be avoided No anesthetized patient should be placed in a position he would find intolerable if awake

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CALLS NCHIP "OLD WORLD SCOURGE"

"Adoption of a system of politically controlled medical practice, as recommended by President Truman, would turn back the clock of medical progress in this country fifty years!" So charged Dr Elmer L Henderson, chairman of the Board of Trustees of the A.M A. who added, "The inevitable deterioration in the quality of care which would result from government-herding of patients and doctors into assembly line medical mills would lower the standards of healthy America to those of sick, regimented Europe "

Dr Henderson's statement follows in part

"President Truman's special message, asking enactment of a National Compulsory Health Insurance Program, deserves most careful scrutiny both by Congress and by the American people, whose health would be seriously endangered if this Old World scourge is allowed to spread to our New World

"There is neither hope nor promise of progress in this system of regimented medical care It is the discredited system of decadent nations which are now living off the bounty of the American people —and if adopted here, it would not only jeopardize the health of our people, but would gravely endanger our freedom It is one of the final, irrevocable steps toward State Socialism, and every American should be alerted to the danger

"One of the great dangers in political diagnosis of the health needs of the people is the temptation to over-simplification President Truman has fallen into this error The President sets forth an objective which all of us can warmly endorse—namely, bringing adequate health services within the reach of all the people The doctors of America, in cooperation with the prepaid medical and hospital care plans and the many splendid voluntary health insurance systems, have made great progress in achieving that objective, so we have no quarrel with the President on that score

"President Truman, however, proceeds from a desirable objective to a highly undesirable proposal for achieving that objective There is a great deal of double talk in the President's message, but what he actually proposes is a National Compulsory Health Insurance System which would regiment doctors and patients alike under a vast bureaucracy of political administrators, clerks, bookkeepers, and lay committees

"Every wage-earner, every self-employed person and every employer would be compelled to contribute exorbitant payroll taxes, eventually mounting to a tax of 8 or 10 per cent on every paycheck, to support this system, and the cost of medical care, instead of being reduced, would be doubled and trebled by bureaucratic overhead The record is clear in every country where Compulsory Health Insurance has been adopted It is cheap in quality, but extravagantly high in price

"The President's message, in some respects, was persuasive and disarming The ideals and objectives were stated in glowing terms, but the message was completely lacking in any specific statement of the services to which the people would be entitled, or any estimate of the taxes which they would be compelled to pay

"There are many fallacies and misstatements in the President's message, some of which cannot go unchallenged President Truman, for example, is about a decade behind the times in his statistics on the growth of the Voluntary Health Insurance Systems He falls into the error of stating that only limited, inadequate health protection is available under the Voluntary Health Insurance Systems Actually, the voluntary systems are providing better coverage today than any compulsory program yet proposed—at about half the price.

"The most serious misstatement in the President's message—and one which it is regrettable any President of the United States would have uttered—is the repetition of that now completely discredited statement that tens of thousands of persons die needlessly in this country, due to lack of medical care. The President, in this instance, as in others, undoubtedly based his statement on the distorted report of the Federal Security Administrator, whose listing of 'needless deaths' included 40,000 deaths from accidents and 115,000 from cancer and heart disease It is shocking that any government department head would seek to impose on the credulity of the American people with such flagrant misrepresentations—and it is unfortunate, indeed, that the President of the United States should have repeated even in part, this misinformation

"There is a very real need in America for the budgeting of medical costs, and American medicine is proud of the part it has played in building the Voluntary Health Insurance Systems to meet that need There is no need however, for compelling the American people to join a government system. The voluntary way is the American way—and the people will resolve this problem, in a very short span of years, under the voluntary systems now available to them."

QUANTITATIVE PHARMACOLOGIC STUDIES WITH PENTOTHAL

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(From the Department of Anesthesiology, New York University Post-Graduate Medical School, the Department of Biochemistry, New York University College of Medicine, and the Research Service, Third New York University Medical Division, Goldwater Memorial Hospital)

DESPITE the sustained popularity of sodium pentothal, as indicated by the accumulation of voluminous clinical experience with this agent, little information of a fundamental pharmacologic nature has been available The clinical parallel of this gap in pharmacologic understanding is the lack of adequate criteria for establishing the depth of anesthesia with pentothal. A serious and provocative attempt to correct this deficiency was advanced by Etsten and Himwich who correlated clinical signs with descending depression of the neuraxis, starting with the newer phyletic areas of the brain and progressing to the more primitive portions [1] Even these workers admitted that the "observations made both on animal and man reveal that some of the clinical signs are out of proportion to the depth of anesthesia " With the aid of sensitive and specific chemical methods for the identification of pentothal and its metabolites, which were devised and are being reported elsewhere, it became feasible to undertake accurate observation of the drug in vivo [2] The implications of such studies for the anesthesiologist are stressed in this report

Since the plasma is the medium of distribution of pentothal to its sites of action in the body, a systematic inquiry into the behavior of pentothal in man must begin with the factors affecting the plasma concentration of the drug and hence, presumably, the clinical effect These factors are the rate of excretion, the rate of transformation, and the extent of localization in the organs and tissues of the body

Urinary excretion of pentothal after its intravenous administration in large doses (2 to 4 Gm) in man was negligible, indicating that the compound is almost completely metabolized in the body Two transformation products were recovered from the urine These accounted for less than 30 per cent of the parent drug injected, suggesting further metabolism in vivo by an as yet unknown route The ultraviolet absorption characteristics of these transformation products indicate that the ring structure of the barbiturate nucleus is still intact and that the chemical alterations incurred have presumably affected the longer, i e , the methylbutyl, side-chain One of these metabolites isolated from the urine has been purified and tested for anesthetic activity in mice Preliminary observations indicate at most a mild sedative action with intraperitoneal doses equivalent to six times the full anesthetic dose of the parent drug Further studies on these metabolites are in progress

Pentothal has been classified as an ultra-short-acting barbiturate because of the generally accepted belief that it is very rapidly detoxified in the body [3] This concept has been difficult to reconcile with the frequent occurrence of prolonged postoperative somnolence following the sustained administration of pentothal It has been tentatively postulated that unidentifiable but pharmacologically active degradation products remaining in the tissues produce the depression [4]

Experiments were conducted to determine the rate of transformation of pentothal in vivo Unpremedicated human subjects received single quick injections of pentothal sodium intravenously in doses of 0 3 to 0 5 Gm in 2 5 per cent concentration Blood samples were drawn at frequent intervals for analysis All subjects lapsed into unconsciousness after a momentary period of stimulation lasting only several seconds and manifested by a sudden spasmodic movement of the head and upper torso As shown in Fig 1, the concentration of pentothal from an initial peak diminishes rapidly at first and then falls more slowly The swift reduction in plasma level might be misinterpreted as indicating speedy destruction of pentothal If this were true, however, the slope of the curve would continue to drop sharply to zero, instead of changing to the slower fall noted Actually, the initial high concentrations observed are "false" in that the measure pentothal in the plasma which has not yet been distributed to all the body tissues with the possible exception of the brain The early rapid decline thus represents a shift of pentothal from the plasma to the tissues rather than its destruction This phase is manifested clinically in the swift recovery from anesthesia as shown by these subjects following the administration of small doses of pentothal The subsequent more gradual decrease in plasma pentothal, accompanied by persistent hypnotic, although not anesthetic,

* By invitation.

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Supported in part by a grant from Abbott Laboratories Inc.

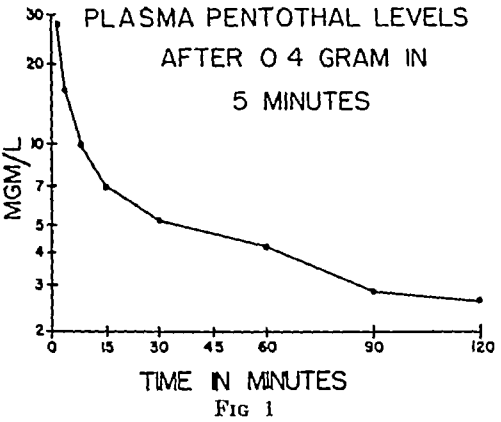


FIG 1

effect, corresponds to the establishment of a state of dynamic equilibrium of drug distribution between plasma water and body tissues Since the renal excretion of pentothal is negligible, the further decline in plasma concentration is due to the process of transformation of the drug The rate of metabolism of pentothal is seen to be slow, about 15 per cent per hour Indeed, appreciable concentrations of pentothal are present in the plasma long after its administration

Metabolites of pentothal are detectable in plasma as early as one hour after the start of intravenous administration These transformation products increase steadily from the equivalent of 4 to 5 per cent of the plasma pentothal concentration after one hour to the equivalent of 35 to 50 per cent twelve to fourteen hours after the administration of larger doses

The concept of plasma-tissue equilibrium merits further comment The exchanges of pentothal between the plasma and the various organ tissues are reversible At any given moment, the plasma level is the resultant of all these local exchanges Equilibrium is achieved when the exchanges are occurring equally in both directions, i e , when the reversible localization of pentothal in the tissues has reached its maximum Only then is the plasma pentothal level a true reflection of the therapeutically active drug concentration The length of time required for the establishment of equilibrium suggests that the tissue localization of pentothal occurs in a gradual manner

The distribution of pentothal in the tissues at equilibrium was studied in the dog Pentothal concentrations in most organ tissues were higher than in plasma, indicating extensive localization of the drug Another significant characteristic of the distribution of pentothal is the degree to which it is bound, presumably by surface adsorption, to the plasma proteins About 80 per cent of the circulating pentothal was found to be so bound Thus the amount of the compound in plasma water (i e , total plasma pentothal less the per cent bound to plasma protein) represents the pharmacologically available drug in the blood stream The disproportion already noted between pentothal in plasma and in the tissue reservoir becomes striking when plasma water pentothal is used as the basis for comparison An interesting observation is that the concentration of pentothal in plasma water is the same as that in cerebrospinal fluid This finding is highly significant, it affords evidence that there is no blood-brain barrier for pentothal in the dog and presumably also in man

The clinical implications of these findings are several The early transient high plasma level may readily result in sudden severe depression of the central nervous system, especially if the absence of a blood-brain barrier for pentothal is confirmed in man The commonly observed phenomenon of early respiratory depression or apnea may be explained on this basis It would also account for the disastrous effects of pentothal when administered incautiously to patients with circulatory depression because of the elimination of central compensatory vasomotor control, as in shock On the other hand, this property may be exploited in healthy patients to facilitate relaxation of the jaw for laryngoscopy and endotracheal intubation The slow rate of transformation demonstrated is contradictory to the general belief that pentothal is rapidly detoxified in the body The postanesthetic somnolence following prolonged pentothal administration is due to the persistence in the plasma of pentothal itself, in appreciable concentrations which are maintained by the extensive tissue reservoir of the drug

An understanding of the factors affecting the plasma pentothal concentrations reveals that efforts to correlate plasma levels and the clinical signs of anesthesia with pentothal will be valid only after achieving the state of dynamic tissue-plasma water equilibrium described above Furthermore, equilibrium should begin at plasma levels sufficiently high to suppress most of the usual manifestations of depth of anesthesia, in order that the time and sequence of their reappearance may be accurately noted To this end, doses of 3 to 4 Gm of pentothal sodium in 2 5 per cent solution were administered by intermittent intravenous injection over a fifty-minute period Artificial respiration with oxygen was instituted by rhythmic manual compression of the breathing bag in the closed to-and-fro carbon dioxide absorption system Oxygen inhalation was continued until spontaneous ventilation was deemed adequate Observations were made of the arterial blood pressure, pulse rate, respiratory rate, pupil size, and the return of the following dur-

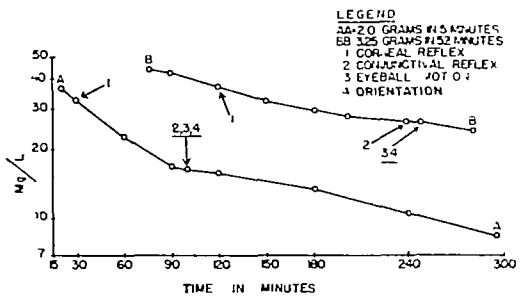


FIG 2 Plasma pentothal levels and the signs of anesthesia after two different dosages [2]

phragmatic breathing, intercostal muscle activity, corneal reflex, conjunctival reflex, pupillary light reflex, eyeball motion, jaw tone, knee jerk, pain response to a standard pinch-stimulus from an Allis forceps applied to the skin in front of the ankle, and orientation, arbitrarily defined as the ability to protrude the tongue on spoken command Repeated trials revealed that, of all the signs listed, the reappearance of the corneal and conjunctival reflexes, eyeball motion, and orientation as described were the most sharply delineated and, hence, especially useful for this study In the same subject receiving equivalent large doses of pentothal at weekly intervals, the plasma pentothal concentrations at which these four signs recurred were approximately reproducible This would indicate that an individual receiving pentothal does not acquire tolerance in the sense of diminished reactivity to the drug administered in similar fashion at a later date

On the other hand, evidence of an acute tolerance to pentothal was found in man When a subject was maintained at high plasma concentrations of the drug, the signs of anesthesia reappeared at higher plasma levels than when he was maintained at low plasma concentrations The duration of narcosis was also increased Figure 2 shows the typical response of the same subject to varied amounts of pentothal administered a week apart The signs reappeared in similar sequence but at significantly different plasma levels Yet the parallelism in slope of the two curves is evidence that the rate of transformation of the compound was unaltered Shideman, Kelly, and Adams observed this phenomenon in the dog under somewhat altered conditions [5] They found that when doses of 10 mg per Kg were repeated at short intervals after apparently complete recovery from narcotic action, the plasma levels at which the righting reflexes returned were successively higher with each additional dose These experiments represent a telescoping in time of our procedure of administrations at weekly intervals, but the findings are analogous Whether the manifestation of acute tolerance to pentothal depends specifically upon the total dose administered, the peak plasma levels attained, or the duration of time under the influence of the drug has not been determined The occurrence of acute tolerance makes it impossible to demonstrate a fixed correlation between plasma pentothal concentrations and the signs of anesthesia A relative and reproducible correlation does exist when the drug is given in comparable dosage and technic to the same subject on different occasions Pentothal thus differs sharply from the inhalant anesthetic agents, such as ether, cyclopropane, and nitrous oxide, with which depth of anesthesia is predictable within narrow limits for any given plasma concentration

The effects of adjuvant drugs commonly employed with pentothal were studied in one subject At weekly intervals, 3 to 4 Gm of pentothal were administered in 2 5 per cent solution over a fifty-minute period, in order to effect equilibrium at high plasma concentrations The inhalation of 50 per cent nitrous oxide and 50 per cent oxygen for one and one-half hours starting early in equilibrium did not alter the usual plasma time-concentration curve of pentothal, nor did it influence appreciably the plasma levels at which the signs of anesthesia reappeared Curare as *d*-tubocurarine hydrochloride in doses of 100 units during high level equilibrium similarly failed to alter either the rate of transformation of pentothal or the plasma levels at which the various signs returned Ten milligrams of morphine sulfate injected intravenously during equilibrium did not disturb the slope of the curve of plasma pentothal levels, even though respiratory depression occurred The signs of anesthesia did appear at lower pentothal concentrations as compared with the control observations Thus morphine does not affect the metabolism of pentothal but does influence its clinical actions to a moderate degree This effect is probably additive in nature

Summary

Quantitative pharmacologic studies with pentothal elicit the following clinically significant conclusions

1 The accepted classification of pentothal as an ultra-short-acting barbiturate on the basis of its presumed rapid detoxification in vivo is erroneous, since pentothal is almost completely metabolized in the body at a surprisingly slow rate

2 Plasma pentothal concentrations bear no fixed relation to the signs of anesthesia

3 An acute tolerance to pentothal occurs in man

4 Morphine, curare, and nitrous oxide do not affect the transformation of pentothal

Discussion

Merel Harmel, M D, *Albany (By invitation)* — Dr Mark and his associates are to be congratulated on the provocative and careful work which they have presented here It is time indeed that basic data concerning the pharmacology of sodium pentothal should be forthcoming, for it is almost fifteen years since this drug was first introduced into anesthesia The voluminous literature on clinical experience is in marked contrast to the paucity of quantitative pharmacologic information

The stumbling block has been the lack of a specific and accurate method for the quantitative determination of pentothal in blood and tissues Obviously, the value of the results which have been presented will depend entirely upon the specificity and accuracy of the technic employed We hope that this method will soon be generally available so that this important work may be confirmed

There are several items which are deserving of comment Indeed, the multitude of findings make it difficult to know where to begin Of great significance is the apparent slow metabolism of pentothal and its persistence in the plasma-water long after its administration As Dr Mark has pointed out, this fact abolishes the necessity of ascribing the prolonged effects of sustained administration to degradation products

At the same time, the idea of a tissue reservoir is presented Of course, this investigation has explored the where and not the how of pentothal metabolism. I am sure the question comes to mind as to what is the mechanism of the pentothal degradation? The latest evidence on this score would appear to implicate the liver In previous studies, pentothal could not be detected either in the plasma or the tissues, shortly after its administration However, Delmonico and then Anderson and Essex observed a cyclic disappearance and reappearance of sodium pentobarbital in the blood [1 2] This phenomenon would appear to be refuted by Dr Mark's experiments with pentothal

If confirmed in man, the demonstration of pentothal in cerebrospinal fluid in quantities equal to that in the plasma water would be most significant Not only would it postulate no blood-brain barrier, but it would give a means of measuring narcotic activity which would not be altered by other tissue contributions Indeed, may it not be that cerebrospinal fluid levels may correlate with signs of depth of anesthesia This finding is in sharp contrast to the work of Kozelka with other barbiturates in which only a tiny fraction of barbiturate could be found in cerebrospinal fluid [3] The presence or absence of a blood-brain barrier could then well be the basis for the increased activity of the ultra-short-acting barbiturates This certainly focuses attention on the sulfur bond Whether or not radioactive pentothal recently made available will elucidate this problem remains to be seen

I should like to know whether representative samples of various brain areas were subjected to analysis in the animal experiments Some work has indicated a selective site of action for the barbiturates in the brain Koppanyi has, however, maintained that all the brain is equally saturated [4] The evidence here presented would, presumably, support Koppanyi's contention

The clinical implications of this study in shock and in the facilitation of endoscopy have been emphasized I should like to inquire what these results mean in terms of deranged electrolyte and water balance associated with changes in the plasma volumes and the hydration of the tissue compartment

It is encouraging to find that laboratory work sustains the clinical impression All of us who have had occasion to use pentothal repeatedly in short intervals on patients have been impressed with the apparent development of tolerance The answer to the occasional prolonged excitement and disorientation, particularly in the aged patient postoperatively, would appear to be explained by the relatively slow metabolism of pentothal

The multitudinous speculations which the data stimulate could go on *ad infinitum* However, it is clear that this work opens up new vistas, both in an examination of pentothal in particular and barbiturate narcosis in general It is hoped that many of the controversial issues can be settled The importance of this type of investigation cannot be overemphasized, for it must be apparent that, as the fundamental knowledge of sodium pentothal increases, so will the safe and intelligent management of patients increase

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PHYSICIANS EARN MORE BY WORKING FOR SELVES

Independent physicians net 43 per cent more income than do doctors on salary, according to a nation-wide survey conducted by *Medical Economics*, national business magazine for physicians Average net income received in 1947 by independent practitioners was $11,300, by their salaried colleagues, $7,914, reports the magazine in its May issue "More than half the salaried men have been in practice less than ten years, as against 37 per cent of independent physicians," the survey reveals Ten per cent of all active, private physicians get more than half their income from salaries

PROPHYLACTIC AND THERAPEUTIC INDICATIONS FOR TRACHEOTOMY DURING SURGICAL INTERVENTION

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THERE are many reports in the medical literature which describe specific surgical problems requiring tracheotomy preliminary to or during surgery to establish and maintain an adequate airway The parallel advances in surgery and anesthesiology during the past score of years have so increased the scope and magnitude of surgery that the frequency of prophylactic and therapeutic tracheotomy is today in many clinics almost a daily occurrence The indications are of such vital importance and the necessity frequent enough to justify grouping in one paper most of the major conditions that may require tracheotomy before or during surgery

Tracheotomy is indeed an ancient procedure Antyllas, an outstanding surgeon living in the second century, described in detail the operation of tracheotomy Paulaus Aegeneta, a Greek practitioner of great repute, describes and devotes considerable space to tracheotomy in his Epitome of Medicine, published in the seventh century [1] These workers were followed by others, each of whom independently described, improved, and used tracheotomy in treating different maladies Avenozar, famous Cordovan physician, recommended its use in special cases of "laryngeal obstruction and impending suffocation " This was in the tenth century In 1610, during the Naples epidemic of diphtheria, Marco Aurelio Severino, a famous surgeon, repeatedly practiced tracheotomy Bretonneau, at Tours, first successfully performed tracheotomy for croup in 1825 In Paris, in 1831, Armand Trosseau, who was especially concerned with tuberculosis of the larynx, was the first to use tracheotomy in treating this disease [1 2] With the advance of surgery, the technic of doing tracheotomy has improved, as has the concept of its postsurgical care Along with these advances has been the extension of its applicability in varied surgical and medical conditions

The surgical conditions to be mentioned are indicative of specific and, at times, taxing problems as they relate to the field of anesthesiology In a treatise on maxillofacial surgery, the author describes indications for tracheotomy as follows (1) Acute respiratory obstruction which is already present but cannot be relieved by other means, and (2) respiratory obstruction which is not yet present but may occur either during or after operation [3] The latter two concepts, it will be noted, can be adapted to any surgical problem that compromises the patency of the proximal airway Patients presenting conditions which necessitate tracheotomy, as conceived by the first indication, are seldom, if ever, denied this life-saving procedure The need in these cases is obvious, it is urgent, it is mandatory On the other hand, the second indication, it is felt, is oftentimes ignored since the need for tracheotomy in these patients is so frequently insidiously concealed And yet, it is this latter category that is more numerically represented in our clinics and operating pavilions

The following is believed to be a practical classification of surgical conditions which may and usually do require tracheotomy as a means to maintain the airway

1 Cases presenting neoplasms in, or in proximity to, the upper respiratory tract

2 Cases presenting severe, moderately severe, and spreading infection involving the pharyngeal, laryngeal, or neighboring structures

3 Cases in which, as a result of injury or severe trauma, the anatomic architecture of the upper air passages becomes distorted or destroyed

In contemplating tracheotomy in these patients, the problems are not always merely to recognize and establish the need for this procedure One must also determine the period in which tracheotomy should be performed These considerations are valid not only because they have a direct bearing on the life and welfare of the patient, but also because they may either facilitate or increase the difficulties of surgery and aid or prove detrimental to anesthesia

The most common condition, in the first group of our classification, is carcinoma of the larynx requiring total laryngectomy [4] Here it is felt that these patients do best when subjected to a preliminary tracheotomy prior to definitive surgery In addition, it is recommended that those patients who have suffered a chronic partial obstruction and who suddenly develop an acute obstruction of the airway should be permitted

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about one week of post-tracheotomy convalescence before surgery, with the view of correcting the unbalanced physiology usually present in these cases.[5] Generally speaking, when a preliminary tracheotomy is established, the problems besetting the patient, surgeon, and anesthetist are simplified.[6] A sterile endotracheal tube with an inflatable cuff is inserted into the tracheostomy by the surgeon. The other end of the tube is connected to the anesthesia apparatus by the anesthetist. To facilitate the introduction of the tube and to increase the tolerance of the patient to the tube, cocainization of these areas has proved satisfactory. Inhalation anesthesia is then effected, and surgery is performed. When the lesion is not large and the airway is not obstructed, many authors prefer initial transoral or transnasal endotracheal intubation following the induction of anesthesia.[7-8]

The surgeon proceeds until the larynx is completely mobilized from its surrounding structures and the site of severance of the larynx from the trachea has been elected. The endotracheal tube is then withdrawn under direct vision by the anesthetist to a point which will allow the surgeon to sever the trachea completely. The roof of the trachea is next grasped and brought into the wound margins in the neck. Finally, the endotracheal catheter is completely withdrawn, and a sterile endotracheal tube is used, as described earlier. Surgery is then completed. A modification of the latter method is to perform a classic tracheotomy just before the severance of the larynx and utilize the tracheostomy to pass an endotracheal tube through which inhalation anesthesia is continued.

A different approach is to perform laryngectomy under regional anesthesia, with bilateral deep and superficial cervical block. A tracheotomy is then done at the close of the operation. This method has been reported as being satisfactory by some workers.[9] Nevertheless, it is felt that this method unnecessarily subjects the patient to undue psychic trauma, pain, and varying degrees of hypoxia. The latter objectionable features are especially true, both in the early stages of surgical intervention when laryngeal obstruction may be prominent and in later stages of the operation when blood and secretions may accumulate. These methods are adaptable to all degrees of radical head and neck surgery including massive carcinomatous lesions of the oral and cervical regions. Large intrathoracic goiters and malignancies of the thyroid gland can prove especially hazardous and complex problems.[10]

A word of caution is added concerning the use of preliminary transoral or transnasal endotracheal tube in handling these problems. The danger of dislodging necrotic neoplastic elements during intubation and causing mechanical metastatic extension in more distal areas of the respiratory tract is ever present. One should also keep in mind that these same friable pieces of tissue that may break off can cause sudden and fatal respiratory obstruction.

In our service a total of 11 total laryngectomies and four mandibulectomies were done in a period of two years. In four of these a first-stage tracheotomy was done about one week prior to definitive surgery. Four were done using a transoral endotracheal tube during the early stages of the procedure, followed by a tracheotomy some time before the termination of the operation. Seven were anesthetized with regional or local methods followed immediately by a tracheotomy, and the operation then continued with anesthesia supplied through a sterile tube as described earlier. There was one death in this series.

Case Report

This fifty-two-year-old man was admitted to the hospital with a diagnosis of extrinsic carcinoma of the larynx. Signs and symptoms of respiratory obstruction had been present for two months prior to admission. The patient was scheduled and brought to surgery. Before the induction of anesthesia the blood pressure was 110 systolic and 70 diastolic. The pulse rate was 64 per minute, respirations 24. A control electrocardiogram indicated a normal tracing. At 8 32 A.M. induction of anesthesia was commenced with nitrous oxide and oxygen, using a 4 1 mixture. At 8 50 A.M. the patient was receiving nitrous oxide, ether, and oxygen mixture. Serial electrocardiogram tracings during this period showed an increase in cardiac rate. The patient was exhibiting a rather prolonged excitement stage and disturbing degrees of cyanosis.

In order to shorten the time interval of the latter two objectionable elements, 60 units of curare (d-tubocurarine, 20 units per cc.) were given intravenously at 8 52 A.M. The patient was noted to be apneic shortly thereafter and was intubated at 8 56 A.M. An attempt to administer procaine intravenously at this time was unsuccessful due to vasomotor collapse. At intubation the patient was completely relaxed. The mucous membrane was intensely cyanotic. No reaction to the tube was noted. The tissues were without tone. Approximately one minute after intubation 100 mg. of procaine were given intravenously. At 9 03 A.M. the abdomen was opened, and cardiac massage begun. Along with these, other heroic measures and stimulant drugs were tried in an attempt to revive the patient. All measures proved to no avail. It was felt that this patient, who had been suffering from the effects of chronic hypoxia, succumbed when subjected to a bout of acute asphyxia. No postmortem was done.

In the second group—those patients presenting moderately severe, severe, and spreading infection of the oral, pharyngeal, and laryngeal struc-

tures—regardless of the degree of patency of the airway existing before surgery, it is obligatory that preliminary tracheotomy be done If this is not done, many of these patients, because of the loss of conscious effort and relaxation of anatomic structures that occur during induction of anesthesia, will obstruct easily and some times fatally Add to this the ever-present hazard of severe laryngospasm, a reflexogenic element notoriously prominent and sensitized in the presence of inflammation of neighboring structures Should these disagreeable complications not occur, the edema of surgical manipulation and inflammation, present postoperatively, will often encroach on the airway and will usually require an emergency tracheotomy The latter, for the most part, are done under the most adverse conditions The most common surgical category exemplifying these hazards is Ludwig's angina [12]

In the third group of our classification the hazards encountered embrace some elements described earlier, plus those peculiar to the inciting cause Primarily, this group comprises maxillofacial surgery, necessitated as a result of severe wounds of the head and neck.[3–13]

Respiratory obstruction may accompany the following conditions (1) multiple fractures of the mandible with resultant malposition of the tongue, (2) presence of foreign bodies encroaching on the air passages, (3) destructive wounds of the base of the tongue, pharynx, or larynx, (4) extensive soft tissue injury of facial and cervical elements with spreading infection, (5) destruction of or injury to the motor innervation of the larynx, and (6) penetrating wounds of the neck with concomitant injury to pleura, thorax and pneumothorax, or mediastinal emphysema

The challenge offered to surgeon and anesthetist by some of these problems at times appears insurmountable The variable degree of destruction of vital upper respiratory anatomic structures in these patients magnifies the urgency and the technical difficulties confronting the surgical team The existing infection or the postoperative secondary infection offers additional dangers to all concerned

Many of these patients will apparently have adequate airways following their injury, nevertheless, it is advocated to do a preliminary tracheotomy in all instances The inherent pitfalls subsequent to failure in using tracheotomy in these patients are many and varied

To cite an example, the patient with a piece of shrapnel lodged and fixed near the larynx or between the tongue and the pharynx may show no sign of respiratory distress, but, upon removal of this foreign body, the injured and devitalized soft tissue, lacking the normal anatomic support, may collapse and fatally obstruct the airway The potential danger of postoperative edema and inflammatory reaction compromising the airway in these patients is again mentioned In this group the best results have been obtained by doing a tracheotomy under local anesthesia and then following through with transtracheal general anesthesia

It should be understood that tracheotomy and the use of an endotracheal tube in the categories described herein is not an absolute assurance of an adequate airway The lower airway must at all times be kept free of mucus and hemorraghic secretions that may slip down past the inflated cuff or that may be formed in the bronchial structures In keeping with this consideration, a suggestion that is believed to be a refinement in technic is mentioned In operating on these patients the surgeons should be stationed at the head end of the operating table, and the patient should be placed in a moderate Trendelenburg position This will help considerably in keeping anesthetic tubing and apparatus out of the surgical field and will materially aid the gravitation of secretions and blood from the lower respiratory tract

Summary

Prophylactic and therapeutic use of tracheotomy in some major surgical conditions has been presented with a view to maintaining an adequate airway during all stages of surgery and anesthesia

The indications requiring tracheotomy have been reviewed

The pitfalls, complications, and potential fatalities because of failure to recognize the need for tracheotomy in the face of a seemingly adequate airway have been offered

It is believed that these measures will help in protecting the life and welfare of the patient, facilitate the difficult task of surgery, and aid in the conduct of physiologic anesthesia

Discussion

Harold F Bishop, M D, *Valhalla*—Dr Friscia is to be congratulated for re-emphasizing the importance of employment of tracheotomy as a means of a more adequate control of the airway for operations in and about the upper respiratory tract

In the past, tracheotomy has been considered more or less as a life-saving procedure which was carried out when mechanical obstruction of the airway had developed to an advanced degree In this capacity it has often proved to be a heroic, futile endeavor As Dr Friscia has pointed out, emphasis should be placed on the utilization of tracheotomy as a prophylactic means of maintaining the airway Trauma, infection, and malignant lesions located about the upper airway may seriously distort the respiratory tract by edema, swelling, and loss of anatomic structure. In the presence of such surgical lesions it often may be advisable to perform tracheotomy prior to operation particularly if the contem-

plated surgery is to be extensive and radical in nature

Frequently, it may become necessary to employ tracheotomy in certain problems of resuscitation, and here again it should be regarded as a measure that is carried out early in the course of treatment In dealing with anterior poliomyelitis of the bulbar type, the swallowing and cough mechanisms are disturbed to such a degree that it becomes difficult to keep the respiratory tract free from secretions In such patients during the past season it has been observed that tracheotomy, performed shortly after admission to the hospital, has been of immeasurable value in the management of these patients while they are confined to the Drinker respirator A rubber tube has been attached to the tracheotomy opening and led to the outside of the respirator through the rubber collar Such an arrangement provides for a means of oxygenation and frequent tracheal aspirations without interrupting the action of the respirator

During the past year tracheotomy has been carried out on ten occasions in dealing with the resuscitation of patients This group includes six patients with bulbar poliomyelitis, one patient with barbiturate poisoning, vomiting, tracheal aspiration, and laryngeal edema, one patient with myasthenia gravis in crisis, one patient with laryngitis and edema following intubation, and one patient with thoracic transverse myelitis who developed massive pulmonary atelectasis The results in these ten patients have been gratifying, and for this reason we will continue to recommend early tracheotomy in similar instances

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USE OF INTRAVENOUS QUINIDINE DURING CLINICAL ANESTHESIA FOR TREATMENT OF ACUTE ARRHYTHMIAS

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(From the Department of Anesthesiology, St Vincent's Hospital)

THE PROBLEM of cardiac arrhythmia presents itself to all anesthetists at one time or another The clinical recognition of arrhythmias, particularly with cyclopropane, occurs in about 7 to 10 per cent of the cases, according to Taylor [1] Actually, with cyclopropane arrhythmias occur in about 48 per cent of the cases, as shown by the electrocardiographic studies of Kurtz [2] Fortunately, most are not serious, but they may be converted to serious disorders of rhythm Very often the development of an arrhythmia may turn the balance against a patient undergoing major surgery For instance, it has been shown that auricular fibrillation may decrease the cardiac output 35 to 40 per cent, while gas studies show that a less efficient cardiorespiratory function exists during arrhythmia [3,4] On the other hand, restoration of an arrhythmia to a normal mechanism increases cardiorespiratory function and also increases vital capacity [5]

To control arrhythmias, various measures have been utilized Francois-Franck used cocaine derivatives intravenously to control disorders of rhythm [6] Beck employed the epicardial application of procaine and Metycaine to control arrhythmias during thoracic surgery [7] This same technic was shown by Mautz to raise the resistance of the heart to the development of disordered rhythm [8] Electric countershock has also been employed to control ventricular fibrillation by both Beck and by Fauteux [9–11] Milowsky and Rovenstine recommend ether to control the abnormalities of rhythm occurring during cyclopropane anesthesia [12] Burstein reported the use of intravenous procaine to control cyclopropane arrhythmias in dogs and showed the value of this drug for the treatment of acute arrhythmias in man [13,14] Until the present time, this has been the most efficacious procedure

Although Wiggers found that procaine administered to dogs raised the resistance of the ventricles to fibrillation, he found no instance in which the heart became entirely refractory to fibrillation [15] Fauteux also found experimentally that procaine could not always prevent fibrillation when given intravenously [11] This worker recommended the injection of procaine into the auricular appendage, and when combined with electrical countershock, plus cooling of the myocardium, there was a greater success in the restoration of regular cardiac activity

Many anesthesiologists have also experienced clinical failure of procaine to restore regular cardiac rhythm In view of this and the experimental work above, we chose quinidine as a drug to be given intravenously for the control of arrhythmias Since the trials in man have been successful in treating disordered rhythms occurring during anesthesia, a program of prophylactic oral administration of quinidine is now being carried out as a part of preanesthetic medication whenever cyclopropane is to be administered and will be reported at a later date

Method and Material

The technic and results in treating acute arrhythmias with intravenous quinidine are herewith presented A 1 per cent quinidine sulfate solution in distilled water was first employed Since this is the limit of solubility of this salt, a more soluble preparation was desired Quinidine lactate is such a salt and has been found to be equally effective as the sulfate salt compound * The technic consists in the injection of from 0 2 to 0 4 Gm of the quinidine lactate intravenously as soon as a disorder of rhythm is diagnosed

Records on the first 25 cases so treated during anesthesia induced for a variety of surgical procedures were analyzed and form the basis of this report The disordered rhythms were diagnosed entirely on clinical grounds and were situations where procaine, which would ordinarily have been used, was not used, except in two instances These arrhythmias included tachycardia, extrasystoles, bigeminal rhythm, and complete dysrhythmia In all cases quinidine was beneficial Improvement in rhythm was evident within five minutes, and complete restoration to regularity was usually observed within eleven minutes The anesthetic agents employed in the 25 cases were as follows ether oxygen, seven, cyclopropane oxygen, 14, cyclopropane-oxygen-ether mixture, one, and pentothal, three

Of these anesthetic procedures it is noted that arrhythmias developed during pentothal anes-

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* Quinidine lactate was furnished through the courtesy of Eli Lilly and Company for investigational use.

thesia in three cases Two of these anesthetics were administered for eye enucleations, while the third was for laminectomy of the fourth to seventh thoracic vertebrae It is presumed that the operative procedure itself acted as the initiating factor in these cases, not necessarily the anesthetic agent Primary interest, however, is with the cases receiving cyclopropane In two of these cases, the use of procaine failed to restore cardiac rhythm to normal within the time usually allotted for such action, this generally being less than two minutes, but quinidine lactate was effective Two cases are summarized here, together with a third case for which electrocardiographic tracings are available

Case Reports

Case 1—E D, a thirty-year-old married woman with an acute abdominal condition, came to the operating room for emergency operation The preoperative diagnosis was ruptured ectopic pregnancy Temperature was 100 6 F, pulse 88 and regular, and respirations 22 Induction and maintenance of anesthesia was with cyclopropane and oxygen Eight minutes after start of anesthesia a coupled rhythm developed with a rate of 140 per minute Procaine, 100 mg intravenously, was given rapidly as soon as the diagnosis was made Little effect was noticed, and in five minutes another 80 mg of procaine was administered intravenously In the next five minutes rhythm became totally irregular, whereupon 0 3 Gm. of quinidine lactate was injected intravenously In seven minutes rhythm was regular, and in ten minutes rate was 88 per minute Throughout the remaining seventy-five minutes of surgery, rhythm remained regular, although cyclopropane was continued even to a depth where controlled respiration was used.

Case 2—J T, a thirty-seven-year-old woman with a diagnosis of active pulmonary tuberculosis, submitted to right pneumonectomy Preanesthetic medication consisted of oral Seconal, 0 1 Gm. two hours preoperatively, and subcutaneous Demerol, 75 mg with 0 4 mg of scopolamine seventy-five minutes preoperatively Induction with cyclopropane was smooth and rapid Further anesthesia then consisted of an ether-cyclopropane mixture Intubation was attempted under vision with McIntosh laryngoscope, but exposure was poor and hence a number 35 French Magill catheter was introduced by blind nastrotracheal technic Pharynx was packed, and a closed to-and-fro carbon dioxide absorption system was set up with the patient in the left lateral position Surgery began twenty minutes after start of anesthesia Respirations were compensated throughout most of the procedure One hour after surgery began, a dysrhythmia was detected and a fall in blood pressure noted Procaine, 90 mg, was given intravenously and a second dose of 100 mg injected in five minutes Pulse rate was between 120 and 180 and rhythm completely irregular Observation of the heart at this time showed the auricles to be fibrillating and the ventricles to be responding irregularly Surgery was suspended Because nine minutes had elapsed since the first injection of procaine without improvement, 0 3 Gm. of quinidine sulfate was given intravenously and 0 1 Gm intramuscularly Rhythm improved and was completely regular in six minutes although rate was rapid At the end of eleven minutes tachycardia disappeared, and rhythm was completely regular, although cyclopropane was continued as needed

Case 3—E A, a twenty-nine-year-old woman, arrived in the operating room for myomectomy She received morphine sulfate 10 mg and scopolamine 0 4 mg subcutaneously one and a half hours before anesthesia Induction and maintenance of anesthesia were with cyclopropane and oxygen, and a closed to-and-fro carbon dioxide absorption system was employed. A tachycardia developed about fifteen minutes after the start of anesthesia, while the surgeon was doing a preliminary dilatation and curettage Electrocardiographic equipment was arranged and tracings made. The anesthesia was lightened so that airway had to be removed, and tachycardia disappeared, occasional extrasystoles remained As soon as anesthesia was deepened to second plane of stage III anesthesia, a tachycardia developed which was replaced by a continuous run of ventricular extrasystoles At this point 0 25 Gm of quinidine lactate was administered intravenously Tracings were made every thirty seconds At the end of three minutes, only occasional extrasystoles were present, and a completely regular rhythm supervened in four and a half minutes at a rate of 100 beats per minute. At the end of five minutes the rate was 72 beats per minute No abnormalities of rhythm were further noted, even though deep cyclopropane anesthesia, accompanied by controlled respiration, was used for peritoneal closure

Discussion

Originally, it appeared from clinical observation that quinidine administered intravenously was effective in about ten to twelve minutes However, examination of the electrocardiographic tracings reveals that many rhythms are reverted to normal in four to six minutes Frequently a tachycardia, similar to the paradoxic tachycardia following the slowing of an auricular fibrillation, develops and lasts for one to three minutes [16]

No untoward cardiovascular reactions have been noted at the time of administration, and in fact there has been improvement with elevation of the systolic blood pressure Neither has respiratory depression or bronchospasm been seen in the cases treated No instances of idiosyncrasy have been detected in a careful postoperative follow-up

The use of quinidine, particularly its intravenous administration, has been avoided by many physicians because of its reputed marked toxicity Much of this feeling has apparently developed on theoretic grounds, especially in

relation to patients with chronic auricular fibrillation The most feared reaction is that of embolism. For this to happen auricular fibrillation must have existed for some time in order that a thrombus form Stroud and Laplace state that the incidence of embolic phenomenon in chronic auricular fibrillation is no greater with quinidine than with digitalis [17] Marvin reports that embolic episodes are definitely less when quinidine is used than when no drug is administered [18] Likewise the report by McMillan in which patients with chronic auricular fibrillation were treated with quinidine shows that serious side reactions to quinidine are few [5] In other words, it appears that toxic reactions to quinidine have actually been overrated and a useful drug has been neglected Furthermore, the arrhythmias developing during anesthesia are acute, and hence thrombus formation is minimal or unlikely The precipitation of ventricular fibrillation by quinidine is a possible hazard However, quinidine is actually indicated for breaking the mechanism of paroxysmal ventricular fibrillation [16]

Summary

Quinidine preparations have been found effective clinically in treating disorders of cardiac rhythm occurring during anesthesia especially with cyclopropane A highly soluble salt, quinidine lactate, has been tested and found to possess the same activity as the sulfate salt A program of preanesthetic medication with oral quinidine is being carried out as a prophylaxis against the development of arrhythmias

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6,597 DOCTORS ADDED TO MEDICAL PROFESSION IN 1948

Doctors entering the ranks of the medical profession in 1948 number 6,597, according to the 47th annual report of the American Medical Association Council on Medical Education and Hospitals The figures show that 3,230 doctors in this country died in 1948 The net increase in the physician population of the United States during 1948 was 3,367

Medical examining boards of the 48 states and of the District of Columbia, Alaska, Hawaii, and Puerto Rico issued 13,551 licenses to practice medicine during 1948 Of this number, 94 per cent went to graduates of approved medical schools, 5,967 were granted after examination, and 7,584 were granted by reciprocity and endorsement of state licenses or the certificate of the National Board of Medical Examiners The number of licenses issued in 1948, as in two previous years, was greater than in any prewar year Although in 1948 there were 892 fewer licenses registered than in 1947, there were increases recorded in 22 states, nearly all rural The greatest number of licenses in 1948 were issued in California, 1,751 New York licensed 1,385, and Illinois licensed 749 More than 500 physicians were licensed in Ohio, Pennsylvania, and Texas, and no state licensed fewer than 25

Candidates appearing before medical examining boards numbered 6,560, of whom 5,840 passed and 720 failed The candidates represented 70 approved medical schools of the United States, nine approved schools of Canada, four medical schools in the United States now extinct, 107 faculties of medicine, and three licensing corporations of other countries, five unapproved institutions, and six schools of osteopathy The greatest percentage of failures represented three groups foreign schools, unapproved schools, and schools of osteopathy In these groups 51 5, 42 7, and 37 8 per cent, respectively, failed From the United States approved schools there were 3 3 per cent who failed, as did 16 5 per cent of the Canadian graduates and 6 7 per cent of the graduates of extinct schools —*J A M A 1, May 21, 1949*

THE RECOGNITION AND MANAGEMENT OF CARDIAC AND CIRCULATORY EMERGENCIES DURING ANESTHESIA

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THE onset of acute cardiac or circulatory emergencies during the course of an anesthesia is a not too infrequent occurrence The very nature of such accidents demands early diagnosis and treatment which, at times, if incorrect, may be of equal harm to the patient Unfortunately, there is an understandable tendency whereby the anesthetist may become respiration conscious to a point that relegates a patient's cardiocirculatory status to one of secondary importance Admittedly, there is a distinct disadvantage to these emergencies when we couple the facts of an unconscious patient, lack of subjective symptoms, and technical diagnostic facilities with that of concomitant surgery which may or may not be discontinued Since it is assumed that these accidents definitely fall in the sphere of the anesthesiologist, the thought is entertained that some help may be derived from a review of the subject Consideration therefore is directed toward the following points choice of anesthesia, so-called nonacute states, reflex cardiac and circulatory accidents, acute cardiac emergencies, and treatment

Choice of Anesthesia

A full review of this topic is beyond the scope of this discussion [1] However, a few comments do seem pertinent

Cardiologists and most anesthetists agree that ether is usually the agent of choice in cardiac patients [2] This is mentioned by way of remarking on a less widely held technic, i e , an attempt to evaluate a cardiac status in terms of cyclopropane anesthesia One may concede its use for induction in most cases except perhaps the severe cardiac However, its continued use is not justified in the face of minor deviations in pulse and blood pressure The transition from such minor infractions on circulation to those of major proportions can be extremely rapid in patients with an already pathologic circulatory system Since we can safely assume that the highest incidence of accidents will occur in established cardiacs, it seems definitely unwarranted to submit these patients to a possibility not beyond some control of the anesthetist

Similar comments are applicable to entities other than strict cardiacs, but it is thought best to mention these in discussing the specific problems

Nonacute States

This group has reference to four main points extrasystole, bradycardia, tachycardia, and sustained hypertension or hypotension Conceivably, one could be inclined to discard these alterations as unimportant since they infrequently result in serious pathology On the other hand, neglect to observe the above-mentioned irregularities will not facilitate the ability to diagnose arrhythmias or accidents of serious consequence

Extrasystole —Recognition is simple Of importance is the fact that extrasystoles are due to a focus of irritation and may well be forerunners of major pathology The commonest causes during inhalation anesthesia are hypoxia and cyclopropane Correction of the former is rarely difficult In the case of cyclopropane, addition or, if necessary, substitution of ether usually suffices to correct the arrhythmia [3] If the condition persists, then the possibility of more profound pathology should be constantly entertained

Bradycardia.—In the normal patient a pulse of sixty or less should constitute bradycardia If associated with a transient hypertension, it may indicate a compensatory phase of circulation If alone, however, bradycardia is best considered as vagal in origin, resulting either from parasympathomimetic drugs or reflex stimulus The former is usually relieved by a change of agent plus atropine intravenously, $^1/_{100}$ to $^1/_{50}$ grain Bradycardia due to reflex stimulus may be more persistent, although treatment is the same Beyond this point, continuation of a slow pulse demands consideration of heart block

Tachycardia —It is less simple to determine when a pulse reaches this category so that individualization becomes necessary We are not concerned here with the shock picture but only with a simple tachycardia whose importance lies in the associated factor of a myocar-

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dium suffering insult Etiology and treatment can be listed as follows

Etiology	Treatment
1 Anesthetic agent	1 Change drug employed
2 Light anesthesia with sympathetic stimulation	2 Proper depth of anesthesia
3 Excess carbon dioxide	3 Correct obstruction acidosis, or inefficient filter
4 Prolonged deep anesthesia	4. Lighten plane of anesthesia if possible Use curare
5 Thyrotoxicosis	5 Gynergin, 0 5 mg, intravenously [4] Terminate surgery if necessary
6 Hypoxia	6 Adequate oxygen
7 Fluid loss (not blood)	7 Saline infusion

Morphine sulfate, $^1/_6$ to $^1/_{10}$ grain intravenously, has been claimed efficient in controlling a tachycardia We hesitate to recommend its empiric use in this manner, much the same as we do any drug during a state of disturbed physiology

Sustained Hypertension and Hypotension.—A sustained progressive rise in pressure, especially in the older age group, entails the possible complication of cerebral accidents It also creates a difficult operative field because of excessive bleeding and in brain surgery can produce severe enough intracranial pressure to prohibit surgery Commonest causes and treatment include the following

Cause	Treatment
1 Agent—cyclopropane especially	1 Substitute or add ether
2 Excess carbon dioxide	2 Correct obstruction, change filter, combat acidosis
3 Light anesthesia	3 Proper depth of anesthesia
4. Hypoxia	4 Insure adequate oxygen
5 Thyrotoxicosis	5 Gynergin. Terminate surgery if necessary

Hypotension is not a common complication if shock and reflex activity are excluded It is no less important, however, because of the subsequent hypoxia and possible postoperative thrombosis One may anticipate its occurrence and employ therapy as follows (1) Hypotension due to Avertin should be followed with oxygen, saline infusion, and Neosynephrine [5] (2) Fluid loss from perspiration should be treated with saline infusion

Reflex Cardiac and Circulatory Accidents

Undoubtedly, reflex accidents produce more cardiac and circulatory derangements during anesthesia than any other single causative factor An awareness of the possibility of such reflex activity constitutes an integral part of efficient anesthesia Obviously, recognition of the entity is facilitated primarily by considering the area involved, and on this basis most discussions of reflex activity have anatomic designation

Head and Neck.—Vago-vagal and carotid sinus reflexes are the prime offenders from this area of the body

Vago-vagal reflexes may be initiated by surgical or anesthetic manipulation [6] One should bear in mind that light anesthesia enhances the occurrence of the vago-vagal syndrome which is often associated with endotracheal technic It is advised especially that extubation be done slowly and not during light anesthesia Further, if by chance a vagotonic element in the patient is known to exist beforehand, then the use of parasympathomimetic drugs is ill advised, and adequate atropinization is recommended in premedication

Symptomatically the syndrome may exhibit itself in varying degrees of intensity involving respiration and circulation The most common noted are a sudden onset of respiratory difficulty progressing to apnea, cyanosis, slow to absent pulse, dilated pupils, and low or absent blood pressure, or an extremely rapid onset of bradycardia and cardiac standstill. In the first mentioned, treatment should include the following (1) artificial respiration, (2) atropine, $^1/_{50}$ to $^1/_{75}$ grain, intravenously, (3) removal of stimulus (except for endotracheal tube), (4) caffeine sodium benzoate, 7½ grains, and (5) curare, 1 to 3 cc , may be considered as a final therapeutic means

The second type with cardiac standstill offers greater difficulty Atropine or curare is of little value Artificial respiration should be instituted and cardiac resuscitation contemplated immediately

Carotid sinus reflexes may be initiated in somewhat similar fashion [7] The commonly ascribed causes include pressure or traction as from surgical retractors and anesthetic head straps Not infrequently, these patients may be known to have a hypersensitive sinus preoperatively, and what has been said about vago-vagal reflexes in this light is applicable here Ability to block the sinus with procaine offers a distinct advantage, however [8] Occurrence during anesthesia is recognized in two types one with slow pulse and low pressure, the second with a precipitous drop in pressure Treatment consists of removal of the stimulus, atropine intravenously, and curare.[8]

Thoracic —During intrathoracic surgery the onset of vagovagal reflexes, as discussed above, constitutes the foremost accident to anticipate [9] The higher incidence of pulmonary surgery naturally creates a relatively greater occurrence of these accidents during such procedures Consequently, cardiac resuscitation is most often reported in connection with pulmonary surgery, and a few pertinent comments seem justifiable Resuscitation should be instituted immediately in the face of cardiac standstill, artificial respiration being part and parcel of the procedure, procaine seems indicated only if and when spontaneous action returns and especially if it be fibrillatory in nature, adrenalin and analeptics have not yet been proved advantageous [10 11]

Cardiac surgery is almost a distinct entity as far as the problem of reflex activity is concerned [12 13] What has been said above is applicable, but, in addition, some unusual syndromes have resulted from cardiac manipulation Palpation of the myocardium during cardiopericardiopexy has been known to cause a complete absence of blood pressure which seems best attended by Paredrine [14] Ligation of a patent ductus may be accompanied by a marked change in pulse pressure The literature is continuously adding facts to this relatively new anesthetic problem in surgery for congenital cardiac defects which is a distinct challenge to the surgeon and anesthetist

Sympathectomy for hypertension is best considered here also The first stage of this procedure is not often associated with any difficulty The second stage, however, is commonly associated with a great fall in pressure on section of the chain Vasoconstrictors and fluid, preferably blood or plasma, are essential in combating this fall One ampule of Neosynephrine in 500 cc of saline may be used, and usually it is best to have this available on a Y tube setup with normal saline to insure an intravenous route Blood can then be immediately placed on the infusion stand

Abdominal —Traction reflexes is the term usually applied to those arising in the abdomen, and, of these, the coeliac plexus reflex is the foremost [15] It may be due to traction or pressure and is recognized by a sudden unexplainable fall in blood pressure, slow or absent pulse, and ashen-gray color Removal of the stimulus should be the first consideration Further therapy cannot be set forth with certainty except perhaps for splanchnic blocks, easily done intra-abdominally [16] One may also try prostigmine, atropine, or curare intravenously

Rapid gastric dilatation can initiate a vagal reflex associated with coronary spasm and cardiac arrest [17] A similar picture is observed with severe pulmonary embolus One should note that this differs from the vago-vagal type of reflex which affects the conducting mechanism of the heart

The syndrome of rapid gastric dilatation may result from an anesthesia accompanied by obstruction and increased pressure or even from an apnea technic without intubation Fortunately it flashes a storm warning—rigid abdominal musculature despite otherwise adequate depth of anesthesia—and this is most important Other symptoms include ashen-grey cyanosis, rapid feeble pulse, and drop in blood pressure

Management of this emergency is simple but must be rapid It consists of insertion of a large stomach tube to deflate the stomach Atropine, $^1/_{50}$ to $^1/_{75}$ grain, may be given intravenously to offset vagal action

A good many other reflex effects on circulation may also be instigated in the abdomen, and a brief enumeration is deemed advisable

1 Traction or pressure in the pelvis or perineum may produce effects parasympathetic in nature with a fall in pressure Treatment involves removal of the stimulus and atropine

2 Sudden removal of a large tumor or fluid mass may cause a shocklike picture and is best treated with fluids intravenously

3 Clamping or ligation of large vessels may give rise to a shocklike syndrome The picture is transient and responds to supportive therapy

4 Removal of adrenal medulla tumors, pheochromocytomas, is attended by a severe fall in pressure which is preceded by a marked rise during manipulation Choice of anesthesia has no relation to the outcome Treatment consists of vasoconstrictors in large doses and blood or plasma

Miscellaneous

1 *Extremities* —Release of a tourniquet, especially on the lower limbs, may precipitate a marked fall in pressure, rapid pulse, and a cold, clammy patient Treatment is supportive, oxygen and fluids primarily

2 *Position* —Postural changes causing circulatory derangements are well-known entities [18] The commonest occur with the use of a kidney rest or gallbladder brace The onset is rapid, and one sees a low or absent pressure, weak pulse, and an ashen-gray or cyanotic patient Removal of the elevated rest usually suffices but may be supplemented with atropine intravenously

3 *Peripheral Dilatation* —This is an unusual picture, the true cause of which is un-

known, since it has been observed with more than one type of inhalation agent and with or without obvious stimuli. The symptoms, however, are definite and easily described. Usually the first sign noted is a peculiar oyster-gray color, despite seemingly adequate exchange. Blood pressure cannot be auscultated but may be palpated, and the pulse has a distinct absence of tension. The response to atropine intravenously is dramatic and heartening.

Acute Cardiac States

Coronary.—Briefly, the picture is one of shock with no explainable cause. There is always a rapid thready pulse. One might say that unexplainable shock during anesthesia should be considered as arising from coronary disease and proper therapy instituted. This should include (1) high oxygen administration, (2) consultation relative to the earliest possible termination of surgery, (3) elimination of all inhalation anesthetics except ether, (4) morphine if patient is conscious, (5) if pressure remains low, one unit of blood or plasma may be given slowly, (6) caffeine sodium benzoate, 7½ grains, for stimulation, and (7) heparin, 50 mg., may be given to prevent clotting.[19]

Heart Block.—Usually, the only sign is a persistent pulse rate of 30 to 50 per minute. Blood pressure more often remains normal, and final accurate diagnosis depends on electrocardiography. Since most of these cases have no associated heart failure, treatment is limited to the use of ether-oxygen anesthesia and careful observation.

Auricular Fibrillation.—An irregular regularity of rate with a pulse deficit speaks for auricular fibrillation. Unless associated with decompensation it does not ordinarily require stringent measures. The following may be considered: (1) ether-oxygen anesthesia, (2) procaine intravenously, 3 to 7 cc. of a 1 per cent solution, (3) dicumarol to prevent postoperative pulmonary embolus if quinidine is to be used therapeutically.[20]

Ventricular Fibrillation.—This entity is usually sudden and fatal. If one should be fortunate enough to suspect its onset from extrasystoles and thready tachycardia or else actually see it during intrathoracic surgery, then procaine is definitely indicated.[21] Equally important, the surgeon and anesthetist should prepare for cardiac resuscitation.

Acute Cardiac Failure.—Left heart failure with pulmonary edema is the more frequent type to expect. Signs and symptoms include low or normal pressure, weak rapid pulse, hyperpnea, cyanosis, and "wet respiration" with moist rales on auscultation.

Treatment is as follows: (1) oxygen under positive pressure with helium if available, (2) Cedilanid (a purified digitalis preparation), 4 cc. intravenously, and repeat with 2 cc. in one hour if necessary (Digitoxin, 4 cc., may be substituted), (3) caffeine, 7½ grains, intravenously, (4) rapid termination of surgery, and (5) if failure occurs during a continuous spinal anesthesia, one may contemplate an added dose to minimize right heart return.[22,23]

Fibrillation During Thyroidectomy.—The signs are as described above but usually are preceded by tachycardia and hypertension.

Treatment consists of oxygen, Gynergin 0.5 to 1.0 mg. intravenously, Lugol's solution, 40 to 60 drops in 500 cc. of saline, and barbiturates. (Pentothal-nitrous oxide anesthesia may be substituted for cyclopropane or ether.)

Summary

An attempt has been made to consolidate and review the common cardiac and circulatory emergencies that may arise during anesthesia. Treatment of these accidents as an integral part of the anesthetist's functions has also been outlined. Discussion could probably be advanced about some specific therapeutic agents mentioned. This, however, is not the most important aspect of the subject. Fundamentally, one goal is of prime significance, and that has to do with the thought that every anesthetist should, first of all, familiarize himself with the accidents that may occur and, in addition, formulate a plan of approach to their treatment so that precious time will not be lost.

Discussion

John H. Geckler, M.D., *Buffalo*.—This paper, I think, has accomplished its purpose here—it has freshened our knowledge of cardiovascular emergencies and the accepted means of combating them. Fortunately, most of us see very few of the more serious of these phenomena, but the danger is that we might get the idea that it can't happen to us and neglect to plan for possible use, unhoped for as it may be, of a quickly available method of treatment.

I can add nothing to what has been said about choice of anesthesia. However, once the choice has been made, it is wise not to be afraid to change it if the patient doesn't handle well. I am sure most of us at some time or other have been amazed at how well the patient may do on what we didn't consider at first the anesthetic of choice.

When I was a resident, these arrhythmias with cyclopropane, which were just classified as nonacute states, did not worry me. I believed with Guedel that they were present in a certain plane,

and either lightening or deepening the anesthesia would abolish them.[a] There were just two instances where relaxation was needed, and yet I thought it inadvisable to push the cycle till the arrhythmia disappeared. But, for several years now, I have had a rather prominent "yellow streak' connecting my dorsal vertebral spines I resort only to the more conservative measures that have been mentioned (adding or changing to ether or perhaps the use of procaine) It is not that I believe the theory of hypothalamic hyperactivity is not sound, I am just no longer stubborn enough to try to prove it at someone else's risk. Perhaps Dibenamine is going to prove to be the drug of choice to stop these and other arrhythmias A recent editorial in *Gastroenterology* by Dr Alvarez quite enthusiastically cites the work of a couple of good physiologists and calls it the best adrenolytic drug yet found[b] It might even be better in thyrotoxicosis than the ergotamine preparation that was mentioned

Vago-vagal and carotid sinus reflexes I do not see very often, although for a good while I used to anesthetize throats locally in the hope of avoiding the former during intubation

I recall one hypertensive case during a total gastrectomy that responded to nothing, and it later developed that one of the units of blood I gave was mismatched. I have been unable to determine for sure, since, whether it could have been the cause

The problem of cardiac resuscitation is still not settled for me Beecher reported, not so long ago, two cases where prolonged massage and multiple needle punctures were useless, but epinephrine injection resulted in cardiac action[c] Recently, another group reported a case where all measures failed until strong traction on the pericardium, incident to its intended opening, turned the trick[d]

When standstill or fibrillation occurs, it is always dramatic and often, as I know, when you least expect it Nicholson says that early diagnosis is the essential thing, not to waste too much time checking the position of a blood pressure cuff which up to that time had been workable[e] Let the surgeon help you check up if he can feel the heart or a large vessel and then, when it is not a false alarm, get started quickly on massage, procaine, and if there is no fibrillation, a small amount of epinephrine I agree with this idea

I have never been convinced that sudden removal of a large tumor or fluid mass could in itself cause shock. I think it is a traction reflex in the case of the tumor mass, but, just in case I'm wrong, I'm always ready to treat it One of the most confusing cases I recall was a coronary under anesthesia, all I could say was that something had happened that I could not explain Fortunately, it ended happily

Dr Masiello mentioned pulmonary embolus I have had two fatal ones so perhaps I m overconscious of them One of these I was called to see within a couple of minutes after a blood pressure fall which might have come from a traction reflex as a large uterus was pulled out of the abdomen, a tube which had just been inserted blindly, or the embolus, for she had been explored five to six days before and had every right in the world to thrombosed pelvic vessels

In summary, one might say about anesthesia as about most other things in life—if you know the trouble you might get into and are prepared to get out of it, you usually don t get in it

[a] Guedel A. G Anesthesiology 1 13 (July) 1940
[b] Alvarez W A Gastroenterology 12 151 (Jan.) 1949
[c] Beecher H. K. and Linton R. R J.A.M.A. 135 90 (Sept 13) 1947
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[e] Runcka, E K. and Nicholson M J *ibid* 135 622 (Nov 8) 1947

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CORRECTION

In a "filler" on page 1162 of the May 15 issue of this JOURNAL, an unfortunate typographical error occurred The original clipping from a news letter of the American Medical Association mistakenly stated that shoe fitting fluoroscopes were "condoned,"—naturally the term shoud have been "condemned" We regret that this mistake was not noted by our editorial staff

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Vago-vagal and carotid sinus reflexes I do not see very often, although for a good while I used to anesthetize throats locally in the hope of avoiding the former during intubation

I recall one hypertensive case during a total gastrectomy that responded to nothing, and it later developed that one of the units of blood I gave was mismatched I have been unable to determine for sure, since, whether it could have been the cause

The problem of cardiac resuscitation is still not settled for me Beecher reported, not so long ago, two cases where prolonged massage and multiple needle punctures were useless, but epinephrine injection resulted in cardiac action [c] Recently, another group reported a case where all measures failed until strong traction on the pericardium, incident to its intended opening, turned the trick [d]

When standstill or fibrillation occurs, it is always dramatic and often, as I know, when you least expect it Nicholson says that early diagnosis is the essential thing, not to waste too much time checking the position of a blood pressure cuff which up to that time had been workable [e] Let the surgeon help you check up if he can feel the heart or a large vessel and then, when it is not a false alarm, get started quickly on massage, procaine, and if there is no fibrillation, a small amount of epinephrine I agree with this idea

I have never been convinced that sudden removal of a large tumor or fluid mass could in itself cause shock I think it is a traction reflex in the case of the tumor mass, but, just in case I'm wrong, I'm always ready to treat it One of the most confusing cases I recall was a coronary under anesthesia, all I could say was that something had happened that I could not explain Fortunately, it ended happily

Dr Masiello mentioned pulmonary embolus I have had two fatal ones so perhaps I'm overconscious of them One of these I was called to see within a couple of minutes after a blood pressure fall which might have come from a traction reflex as a large uterus was pulled out of the abdomen, a tube which had just been inserted blindly, or the embolus, for she had been explored five to six days before and had every right in the world to thrombosed pelvic vessels

In summary, one might say about anesthesia as about most other things in life—if you know the trouble you might get into and are prepared to get out of it, you usually don't get in it

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CORRECTION

In a "filler" on page 1162 of the May 15 issue of this JOURNAL, an unfortunate typographical error occurred The original clipping from a news letter of the American Medical Association mistakenly stated that shoe fitting fluoroscopes were "condoned,"—naturally the term shoud have been "condemned" We regret that this mistake was not noted by our editorial staff

ECTOPIC PREGNANCY WITH A STUDY OF AN ASSOCIATED CLINICAL SYNDROME

HAROLD C INGRAHAM, M D , MILTON M GARDNER, M D , and LEONARD E WITKIN, M D , New York City

(*From the Obstetrical and Gynecological Service of Lincoln Hospital*)

THE diagnosis of ectopic pregnancy is an unexpected or an exclusion diagnosis in the average hospital throughout the country At this hospital it is a common disease and because of its frequency certain aspects of history-taking, physical examination, diagnostic aids, and laboratory procedures assume paramount consideration in making the diagnosis

In the two-year period from January, 1945, to December, 1946, there were 80 ectopic pregnancies out of 1,929 admissions to the gynecological service Of the 1 929 gynecologic admissions there were 825 abortions of all types On the obstetrical service there were 3,219 completed deliveries for the same two-year period, making a total of 4,134 pregnancies treated at this hospital One out of 24 1 gynecologic admissions was an ectopic pregnancy, while one out of 51 6 pregnancies admitted to this institution was proved to be an ectopic pregnancy Wynne found a 1 3 per cent ectopic rate at Johns Hopkins Hospital [1] Counsellor recorded 2 24 per cent at the Jefferson Hospital [2] We found a 1 9 per cent ectopic rate in relation to the number of pregnancies admitted During this period there were 386 major surgical gynecologic operations One out of 4 9 cases proved to be an ectopic pregnancy

The frequency of pelvic inflammatory disease due to abortal, postabortal, and acute infections is very high in this area Is our ectopic rate related to this fact? Is there a definite clinical picture associated with the site of implantation? Are there any findings that appear frequently enough to be used to increase the range of diagnosis? This study aimed to answer these three questions

Material

The average age of this group was thirty years, with the distribution of cases equally divided between the third and fourth decade of life The percentage of single women was significantly high Eleven per cent of the patients were married, thereby confusing the idea of the pregnancy status of the patient This throws the burden of proof of pregnancy, a rather touchy problem, on the diagnostic acumen of the physician There were 210 previous pregnancies in this series of cases prior to the ectopic gestation One hundred fourteen, or 55 per cent, of these ended in abortions of some type This far exceeds the abortion rate described by the Ministry of Health of England which places it at 16 7 per cent, and the New York University Clinic which reaches 27 3 per cent [3 4] This potential exposure to infection and subsequent pathologic change in the pelvis was frequent in this series In addition to the numerous abortions the past history revealed additional precursors of pelvic changes (Table 1)

TABLE 1 —HISTORY OF LOWER ABDOMINAL DISEASE

	Percentage
History of pelvic inflammation	26 2
Previous ectopic history	5 0
Previous appendectomies	5 0
Previous gynecologic operations	6 2

Present History —This series falls into two clinical categories The larger group is called manifest ectopic pregnancies and is composed of cases which are diagnosed promptly or are urgent laparotomies within twenty-four hours of admission The smaller group is nonurgent cases which require longer periods of study before they are properly diagnosed or an exploratory laparotomy is done These are called latent ectopic pregnancies In this series there were 53, or 66 2 per cent manifest and 27, or 33 8 per cent latent ectopic pregnancies

The lapse of time from onset of pain to operation in ectopic pregnancies was fairly characteristic of both manifest and latent

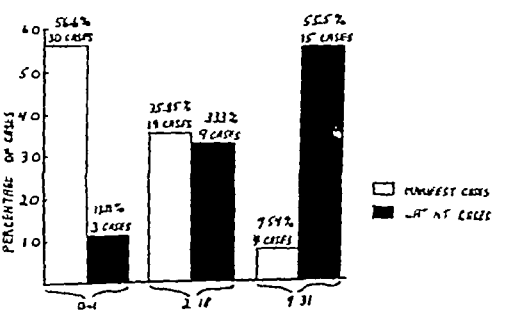


FIG 1 Duration of bleeding to operation (days)

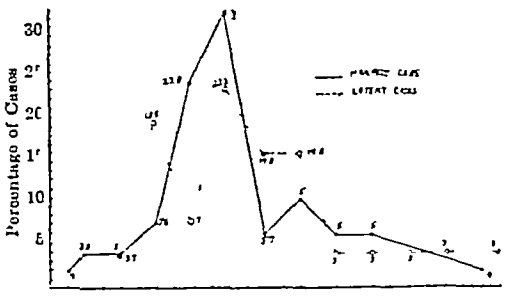


FIG 2 Duration of time from date of last menses to operation (weeks)

cases Forty-two, or 77 7 per cent, of the manifest cases had pain under five days Of these, 30, or 56 6 per cent, had an acute onset of pain under twenty-four hours Only three, or 11 1 per cent, of the latent cases had pain under five days The remainder of the latent cases had longer histories of pain, making their diagnosis more confusing

The duration of bleeding to operation is illustrated in Fig 1 The manifest cases had early histories of bleeding as compared to the latent cases A large group of the manifest cases had no bleeding at all

Figure 2 points out that the period of time from the last menstrual period to the time of operation in both manifest and latent ectopic pregnancies falls within eight to twelve weeks

In routine history-taking the symptoms of shoulder pain, fainting, or passage of tissue were variably elicited These symptoms were found significantly in the manifest cases Thirty-nine per cent of the manifests had shoulder pain, while 3 7 per cent of the latents presented this symptom Fifty-one and three-tenths per cent of the manifest cases fainted or felt faint This was not present in any of the latent cases Although only one manifest case passed tissue there were 14 8 per cent of the latents who did

TABLE 2 —BLEEDING MANIFESTATIONS

Type	Manifest (Per Cent)	Latent (Per Cent)
Spotting	32 1	40 9
Bleeding	26 3	22 4
Clots	13 2	26 2
None	28 4	10 5

H B Atlee in a survey of 100 cases showed that 27 3 per cent of the "acute" and 4 5 per cent of the "chronic" ectopic pregnancies had no bleeding [5] His series closely parallels this study as revealed in Table 2 where there were 28 4 and 10 5 per cent in the manifest and latent cases, respectively A study of Table 2 shows that no type of bleeding was common to either manifest or latent groups

Physical Findings —Twenty-three, or 40 3 per cent, of the manifest cases and 2, or 7 4 per cent, of the latent cases had the typical appearance of a patient in shock This picture of shock was more apparent when the pulse and blood pressure were recorded It was found that 23, or 47 1 per cent, had a systolic pressure under 90 mm Hg, and 25, or 47 1 per cent, had pulse rates over 100 This was seen only in the manifest cases All latents had normal blood pressures and slow pulses The temperature of the manifest cases in 15 2 per cent was under 98 F This was not present in the latent cases Ten cases, or 19 per cent, of the manifest cases had temperatures recorded over 100 F A larger percentage, 33 3 per cent, of the latents revealed this elevated temperature

TABLE 3 —ABDOMINAL EXAMINATION

Sign	Manifest (Per Cent)	Number of Cases	Latent (Per Cent)	Number of Cases
Distention	26 6	14	14 8	4
Mass	9 5	5	25 9	7
Spasticity	24 7	13	14 8	4
Tenderness	96 6	51	70 3	19
Bilateral	34 7	18	22 2	6
Unilateral	62 7	33	48 1	13
Rebound	64 6	34	25 9	7
Bilateral	32 3	17	11 1	3
Unilateral	32 3	17	14 8	4

Abdominal examination in ectopic pregnancies caused tenderness and rebound pain fairly persistently, but tenderness was significantly high in both groups Both the manifest with 62 7 per cent unilateral tenderness and 48 1 per cent of the latent cases illustrated this fact (Table 3) All of the other signs appeared inconsistently and can readily be present in other abominal conditions

TABLE 4.—VAGINAL EXAMINATION

Sign	Manifest (Per Cent)	Number of Cases	Latent (Per Cent)	Number of Cases
Tender on motion of cervix	66 5	35	40 7	11
Uterus larger than normal	45 6	25	48 4	13
Adnexal masses or tenderness	85 5	45	77 7	21
Bilateral	19 0	10	18 5	5
Unilateral	66 5	35	59 2	16
Bulge or tenderness in cul de-sac	47 5	25	44 4	12

Vaginal examination in ectopic pregnancy revealed many positive findings (Table 4) It was apparent that bilateral adnexal masses or bilateral tenderness occur infrequently The findings of tenderness on rocking the cervix, a slightly enlarged uterus, a unilateral

adnexal mass or tenderness, and a cul-de-sac bulge or tenderness were persistent in the largest percentage of the patients

Laboratory Findings—Thirty-three of the manifest ectopic pregnancies had no erythrocyte sedimentation rate (E S R) tests done Of the remainder, 11 had E S R 's over thirty, which in this hospital is considered elevated In the latent cases 12 had high E S R 's rates (i e , over 30) The impression gained is that in either type of case the E S R is a nonspecific test

The hemoglobin, however, gives a better lead as to the diagnosis Sixty per cent or below was considered the critical level Twenty-three, or 40 4 per cent, of the cases of manifest ectopics had findings under 60 per cent An additional five had no hemoglobin test performed because of the urgency of the case Four (14 8 per cent) of the latents also had a low hemoglobin It is felt that hemoglobin determinations elicit a most dependable laboratory finding in the manifest cases and is of questionable value in latent cases

Preoperative Diagnosis and Diagnostic Aids—The preoperative diagnosis in the manifest cases was correctly made in 90 5 per cent of the series There were five missed diagnoses A colpotomy performed as a diagnostic aid was used to establish a presumptive ectopic pregnancy in one of these cases The other four were operated on for other surgical emergencies One was wrongly called a twisted ovarian cyst, another a strangulated umbilical hernia, and two were thought to be acute appendicitis

A considerable amount of thought for a positive diagnosis was required in the latent cases Ectopic pregnancy was diagnosed outright in four cases Another four cases were suspected One was proved by a positive Friedman test for pregnancy, another had a curettage and returned for a subsequent colpotomy, and, because blood was found, a laparotomy was done The other two were explored on the suspicion of ectopic gestation

Ten latent cases had a Friedman test, a curettage, or a colpotomy done to establish a diagnosis Colpotomy proved the diagnosis three times Eight curettages were performed and aided in each case in proving the presence of an ectopic Five Friedman tests were performed, and, because four were positive, a diagnosis of ectopic pregnancy was declared present The other was negative but still required an exploratory laparotomy

Five patients went into collapse after a period of time, either as a result of examination or from a continuation of the pathologic process while waiting for a laboratory report to be returned

Seven patients were diagnosed wrongly, and the actual conditions were only revealed at operation The errors of diagnosis are only interesting in that almost every gynecologic disease can simulate an ectopic pregnancy by history, physical examination, or laboratory procedure Table 5 illustrates this fact, since the following diagnoses were made in the latent cases as the initial diagnosis

TABLE 5.—MISTAKEN DIAGNOSIS

Diagnosis	Number of Cases
Fibromyomata uteri	2
Threatened abortion	4
Incomplete abortion	5
Pelvic abscess	2
Pelvic inflammatory disease	5
Ovarian cyst	5
Acute appendicitis	2
Gynecologic observation	1
Second degree retroversion of uterus and prolapsed ovary	1

Operative Findings—Forty-four cases (42 5 per cent) of the 80 in the series evidenced salpingitis pathologically or by findings at operation Seven cases, or 8 8 per cent, had salpingectomies prior to the present ectopic gestation Fifty-one and three-tenths per cent had proved salpingitis or salpingectomies This is a significant number when viewed as a causative agent in considering ectopic pregnancy

TABLE 6.—SITE OF PATHOLOGY

Site	Manifest (Per Cent)	Number of Cases	Latent (Per Cent)	Number of Cases
Tubal abortion	20 8	11	74 4	20
Ampular rupture	26 3	14	25 6	7
Isthmic rupture	18 9	10		
Fimbrial rupture	11 3	6		
Interstitial rupture	15 2	8		
Not specified	7 5	4		

The large percentage of cases with tubal abortion certainly indicated where the difficulty in diagnosis arose (Table 6) The moderate reaction by the patient to the pathology paralleled her mild symptomatology The acute rupture did not always give the picture of ectopic pregnancy as shown by the behavior of those that ruptured in the latent group

Our attempt to associate certain clinical pictures with the site of the pathology and its eventual course were significant in the tubal abortion and interstitial pregnancy Tubal abortions were more prone to be of the latent type in the expression of its diagnosis and were more apt to be missed It was only in a *post hoc* re-evaluation that its presence assumed importance as a surgical disease Its clinical

and laboratory findings will always confuse the practitioner The interstitial ruptures, however, illustrated a definite picture almost attaining the characteristics of a clinical syndrome The common history of fainting, acute onset of pain, absence of vaginal bleeding, intense shock, low blood pressure, rapid pulse, low hemoglobin, abdominal tenderness that tended to be bilateral, and unilateral mass are outlined in the following cases These cases revealed syndromatic symptoms and were considered interstitial pregnancies because of the site of rupture as viewed by the surgeon or the pathologist

Case Reports

Case 1 —A thirty-two-year-old gravida VII, Para 4, was admitted in shock with finding of intraperitoneal bleeding There was bilateral abdominal tenderness, and a unilateral mass was felt The operator reported an interstitial rupture, but the pathologist makes no mention of its location

Case 2 —The patient, a twenty-three-year-old gravida III, Para 2, had been treated as a threatened abortion of a five-month gestation on a prior admission On her present admission she gave a history of developing shock symptoms following intercourse Physical findings were typical of intraperitoneal bleeding plus bilateral tenderness, a unilateral pelvic mass, and a large uterus. The surgeon and the pathologist both reported a definite interstitial pregnancy with invasion of myometrium by syncystial masses and linings of decidua and chorionic villi

Case 3 —A twenty-six-year-old gravida II, Para 1 had a history and findings pointing to a ruptured ectopic pregnancy There was tenderness over whole of abdomen and a unilateral mass in the pelvis but no external bleeding The operator reported an interstitial rupture The pathologist found endometrium in the site of rupture

Case 4 —This was a twenty-five-year-old gravida I, Para 0, with a four-month amenorrhea She was admitted in shock with no vaginal bleeding Physical findings were typical of interstitial pregnancy The operator reported the entire top of the right side of the uterus was blown off The pathologist corroborated the findings

Case 5 —The patient was a twenty-nine-year-old gravida I, Para 2, with a typical history of intraperitoneal bleeding and ruptured ectopic pregnancy Her period of amenorrhea was three months, and the uterus was enlarged to a three-month gestation The surgeon and pathologist concurred that the location of the ectopic pregnancy was interstitial.

Case 6 —This patient was a twenty-nine-year-old gravida III Para 1, with a typical history and findings of ectopic pregnancy without vaginal bleeding Only the operator felt this was an interstitial pregnancy The pathologist could not place the location because of the disruption of the surrounding tissue

Case 7 —A twenty-one-year-old gravida II, Para 1, was admitted actually ill without a history of vaginal bleeding Physical examination revealed findings of a possible ectopic pregnancy The operator and pathologist reported an interstitial rupture in an early ectopic pregnancy

Case 8 —This was a thirty-one-year-old gravida II, Para 1, admitted with a typical history of ectopic pregnancy There was no vaginal bleeding, and the patient was in acute shock. The operator noted an early ruptured interstitial pregnancy The pathologist made no reference to the site of rupture

Summary

1 Eighty cases of ectopic pregnancy are reviewed

2 The history, physical findings, and laboratory findings are discussed

3 The association between lower abdominal disease and ectopic pregnancy was found to be significantly high

4 A clinical picture associated with the site of implantation is evaluated

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LINCOLN ON PRIVATE PROPERTY

Property is the fruit of labor property is desirable, is a positive good in the world. That some should be rich shows that others may become rich, and hence is just encouragement to industry and enterprise Let not him who is houseless pull down the house of another, but let him labor diligently to build one for himself, thus by example assuring that his own shall be safe from violence

I take it that it is best for all to leave each man free to acquire property as fast as he can Some will get wealthy I don't believe in a law to prevent a man from getting rich, it would do more harm than good.

SUBCUTANEOUS CYSTS OF RHEUMATOID ARTHRITIS

PHILIP L STAUB, M D , Staten Island, New York

(From the Orthopedic Service of the Halloran Veterans Administration Hospital)

PATIENTS with rheumatoid arthritis occasionally develop associated subcutaneous cystic masses Because of their close resemblance to bursae or ganglia, these cysts may easily be mistaken for separate clinical entities, but they are essentially part of the picture of rheumatoid arthritis

In the case to be reported the patient had many subcutaneous cystic lesions, some of which simulated olecranon bursae or wrist ganglia The diagnosis of these cysts was the subject of considerable speculation and dispute, but microscopically they showed the synovial changes typical of rheumatoid arthritis

Case Reports

The patient was a forty-two-year-old white man who first noticed aching pains in his feet in August, 1940, about seven years prior to his latest hospital admission During the next nine months his ankles, knees, hips, shoulder, elbows, wrists, and fingers gradually became painful and swollen From April, 1941, until August, 1942, he was given gold injections at another hospital and he slowly improved Although he was rejected by the Army in January, 1942, because of his joint involvement, pain and swelling had completely subsided before the completion of the gold therapy, and in November, 1942, he was able to pass a physical examination for induction into the Army

The patient was asymptomatic until March, 1943, when he noted a small, soft nodule over the medial aspect of the head of the right first metatarsal bone Because of the nodule's tenderness the patient was hospitalized Shortly thereafter his various joints again became painful and swollen Additional tender subcutaneous nodules appeared on the plantar surfaces of his feet, and a fluctuant, tender, cystic mass appeared over each olecranon He subsequently received a medical discharge from the Army

Subcutaneous nodules and cysts continued to appear on the forearms, wrists, and feet, and because of their tenderness the patient was admitted to Halloran Hospital for treatment

Examination was essentially negative except for somewhat symmetric, tender, subcutaneous cystic masses about the olecranon processes and on the dorsal surfaces of both forearms and wrists (Fig 1) These varied in size from 0 8 to 6 4 cm. in diameter Several firm, cystic, solid, tender masses were palpable on the plantar surfaces of the forefeet and the great toes (Fig 2)

There was no swelling or restriction of motion of any joints, and the skin about the joints showed no trophic changes

X-rays of the hands and feet showed numerous,

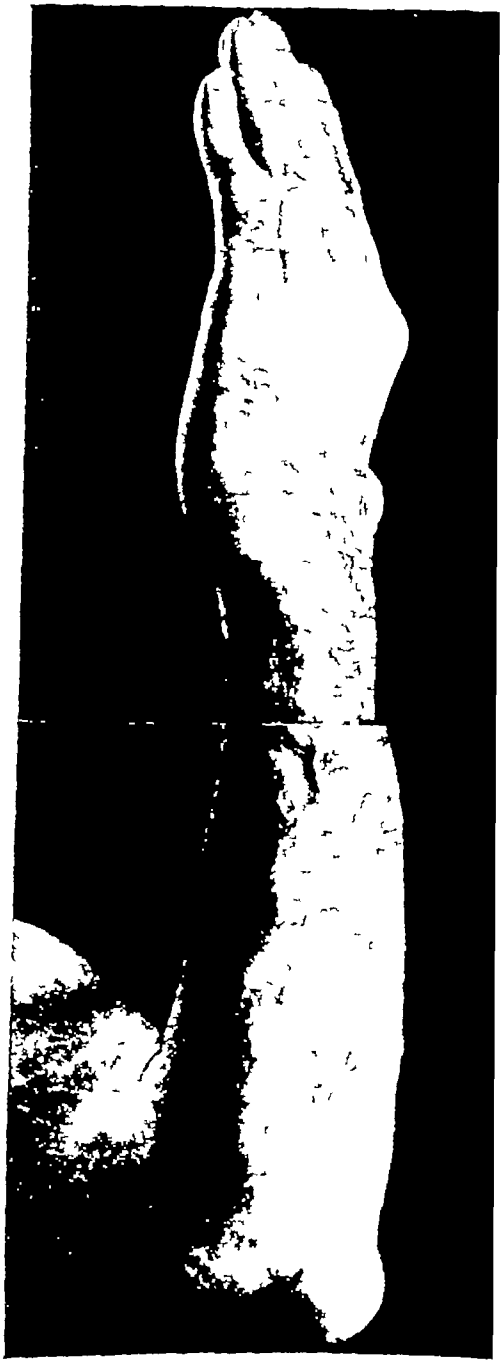


FIG 1 Subcutaneous cysts on left elbow, forearm and wrist.

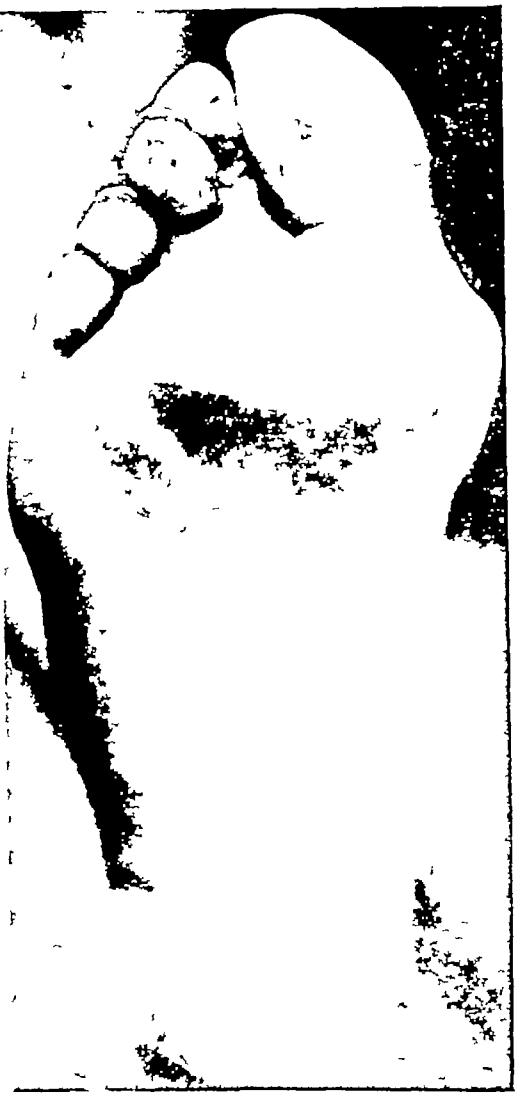


FIG 2 Subcutaneous lesions beneath the heads of the first and third metatarsal bones, right foot

punched-out, small cystic areas of rarefaction in the small bones of the carpus and of the digits Minimal hypertrophic changes were seen in the elbows There was no atrophy of bone so characteristic of rheumatoid arthritis

Laboratory studies were as follows white blood cells 9,500, polymorphonuclear neutrophils 67 per cent, lymphocytes 25 per cent, eosinophils 4 per cent, red blood cells 4,950,000, hemoglobin 15 4 Gm., sedimentation rate (Wintrobe) 30 mm uric acid 3 4 mg per cent, cholesterol 310 mg per cent, calcium 9 6 mg per cent, and alkaline phosphatase 2 5 units

All of the tender masses were excised with considerable amelioration of symptoms The cysts



FIG 3 Section through a subcutaneous cyst showing a central area of necrosis—(A) with cystic spaces, (B) with hyalinized collagenous tissue, and (C) surrounded by palisaded epithelioid cells (60×)

about the elbows and forearms contained watery, amber-colored fluid Those in the wrists involved tendons and sheaths and were filled with gelatinous, orange-colored material The tendinous tissue was in a state of deterioration varying from moderate thickening to complete degeneration and necrosis The masses in the front were firmer and more solid than elsewhere, with only slight liquefaction but with similar affection of the tendons and their sheaths

Microscopic examination of all of the lesions was essentially that of the soft tissue changes of rheumatoid arthritis Because of the collapse of the cyst walls, the cavities were not well demonstrated microscopically The synovial membranes were thickened by hyaline connective tissue fibers In the central portion of each lesion was a diffuse, pink, granular area of necrosis containing cellular debris and lymphocytes About this was an area of dense, partially hyalinized, collagenous tissue, containing a number of dilated capillaries surrounded by collections of fibroblasts, histiocytes, lymphocytes, and plasma cells Beyond was seen an area of palisaded epithelioid cells (Fig 3)

An examination of the patient six months after surgery revealed that, while his general arthritic picture was unchanged, he was completely relieved of the symptoms of those rheumatoid lesions which had been excised However, several new moderately tender lesions had since appeared on the plantar and dorsal surfaces of the right foot Other masses may be expected to develop from time to time, and their complete removal will probably alleviate the symptoms

Comment

A search through the medical literature fails to reveal much concerning these cystic lesions of rheumatoid arthritis It is probable that these fluctuant masses developed from solid subcutaneous nodules which are so often observed in this disease These nodules have a characteristic central area of necrosis, and, if liquefaction ensues, a cystic lesion results Bennett *et al* state that the nodule of rheumatoid arthritis has a zone of central necrosis which in well-developed lesions undergoes liquefaction and forms bursa-like cavities [1] These cavities are lined with a regular palisading arrangement of cells which is a prominent feature of this lesion

Weber has reported enlarged synovial bursae with thickened walls and ganglia of the hands and wrists In describing these masses in three patients, he says that they were solid rather than cystic with necrotic, gelatinous central areas [2]

Summary

A case of rheumatoid arthritis with many tender subcutaneous cystic lesions is reported Although these cysts simulate bursae and ganglia, they are part of the systemic picture of rheumatoid arthritis Tenderness disappeared after the excision of these masses

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"DR JONES" SAYS—

Thirty-odd years ago a country doctor (a good one) told me his own story—the only true one I ever heard where any good came out of a cancer patient being treated by a quack He'd quit school when he was in high school and taken up carpentry He was married and had a teen-age daughter His wife developed cancer but the doctor she went to didn't make a diagnosis 'til it was well advanced Then someone told them about a "doctor" that advertised to cure cancer and they went to see him. He said he could cure it, "treated" her 'til their money was gone, then washed his hands of the case She died, of course

"I decided, then and there," he told me, "I'd be a doctor myself and an honest one" He went back to school, in the class with his daughter, graduated, and, four years later, came out of Syracuse Medical College with his M D He practiced for years in a village out by Cortland County way, and, if I'm not mistaken, his son's practicing there now

What reminded me of that story was a report published a while ago by the A M A Council on Pharmacy and Chemistry People with cancer and others that haven't got it but fear it, it said, are still being victimized by the sale of quack remedies What's more, some of these outfits even advertise to physicians and mislead some of 'em with their plausible sounding claims The report listed several "Collodaurum," supposed to be a gold cure, iodine preparations called "Iriodine" and "Radiodine", Doch's synthetic antitoxins, Hett "Cancer Serum", "AF-2" and others

The thing the Council stresses is that, while research is turning up interesting drug possibilities, it's all experimental and no drug cure has yet been found Up to now the only established treatments are surgical or with irradiation X-rays, radium and so on In the meantime, in a recent study of the doctors in important medical specialties, surgeons have the lowest cancer death rate They evidently practice what they preach early diagnosis and prompt treatment—*Paul M Brooks, M D*

THE ADMINISTRATION OF CURARE BY ELECTROPHORESIS

Preliminary Report

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THE ability of curare to relieve muscular spasm induced the author to administer it locally by electrophoresis (iontophoresis) in a number of conditions where a muscle or a group of muscles were in a state of painful spasm

The clinical use of curare is dependent upon its property to create a transient interruption in neuromuscular transmission at the myoneural junction The myoneural block may be total or partial In this study curare was used in the form of "Intocostrin," which is an aqueous extract of purified curare *

The effect of curare when injected intravenously or intramuscularly is evanescent and is often associated with unpleasant reactions In an effort to avoid the uncomfortable systemic reactions incident to the parenteral administration of curare and at the same time bring about an intense local effect, the author introduced curare into the tissues by electrophoresis There is evidence that the introduction of certain drugs into the body by means of the galvanic current increases their pharmacodynamic effects, and improves the therapeutic results [1] The author used Bourguignon's technic of electrophoresis which is based on ion localization [2]

Theory of Ion Localization

From experimental studies with electrophoresis Bourguignon showed that chemical substances may be deposited along the path of the current determined by the position of the electrodes [2] He further demonstrated that ions are not only driven into the blood stream but that they are also removed from the circulation and are anchored along the route of the current Leduc, on the other hand, considered it impossible to localize ions within specific tissues [3] He felt that the galvanic current transports therapeutic substances beyond the epidermal barrier into the capillaries where they are carried away by the blood stream.

In order to deposit therapeutic substances at a desired site, it is necessary to route the current across the part to be treated and to cause as little diffusion as possible To achieve this objective, small electrodes are employed and applied circumspectly to judiciously selected points of entry and exit of the galvanic current, at the opposite sides of a lesion A current of low intensity is employed, and the treatment continued for from twenty-five to thirty minutes Bourguignon demonstrated, by means of oscillometry, that in transcerebral electrophoresis the peak effect of ion transfer occurs after twenty to twenty-five minutes of current flow [2] To obtain maximum benefit from the administration of curare, a correct diagnosis is essential This enables proper placement of the electrodes Too often the area of pain is treated instead of the source of pain

Leduc used large electrodes and strong electric currents [3] This was done in accordance with his belief that electrophoresis represented an intravenous injection without the needle prick His objective was to introduce large amounts of drugs into the body With this technic the position of the electrodes is immaterial The "active" electrode covers not only the area to be treated but also much of the surrounding tissue The "dispersive" electrode is at least twice as large as the therapeutic electrode After soaking in ordinary hot tap water, the dispersive electrode is placed anywhere on the cutaneous surface Leduc's old "ionization" technic is still popular in the United States

Technic of Application

Since curare is an alkaloid and carries a positive electric charge, the polarity of the electrode must be positive The electrode, which is cut to the dimensions of the lesion to be treated, is completely saturated with Intocostrin and is applied to the skin over the lesion The cathodal electrode is of the same size or somewhat larger It is thoroughly soaked in hot tap water, wrung out, and then applied to the opposite side of the lesion The electrodes employed by the author consisted of fine pore cellulose sponge (E I du Pont de Nemours) covered on one side with smaller metal foils

After the electrodes are connected to the proper terminals of the galvanic generator, and after all meters and controls are properly set, the current is turned on and its intensity is gradually increased A sensation of pricking is all that the patient is supposed to experience

At the end of thirty minutes, the intensity of the current is gradually reduced, and, finally, the current is turned off After removing the elec-

* Intocostrin was generously supplied by E R. Squibb & Sons.

trodes, the treated area is dried and covered with a soothing lotion (e g , Johnson's Baby Lotion) Treatments are given three times weekly The area of the skin to which curare is applied generally shows cutaneous vasodilatation The part feels warm and the temperature of the skin is increased

Conditions Treated

Electrophoresis of curare relieves muscular spasm, reduces local and referred pain, alleviates tenderness, ameliorates stiffness and rigidity, and increases motion

The degree of relief brought about by curare varies, it depends upon individual response and pathologic process In no case have any adverse general effects been noted during or following the administration of curare by electrophoresis

Intocostrin was employed in conditions which previously failed to respond to other therapeutic measures This preliminary report is based upon 31 patients who were treated with 257 applications of curare Eighteen of the patients were women, and 13 were men Their ages ranged from twenty-three to sixty-four years

The following conditions were treated

Facial Contracture —Curare was administered by electrophoresis to four patients in whom facial contracture developed in the wake of Bell's palsy Considerable diminution in the degree of the contracture occurred in these patients A case of facial tic was treated in the same way In this patient, a man of forty-two years, vestiges of a facial palsy of the left side were still discernible The improvement noted after eleven treatments was striking

Fibrositis —Ten cases with tender palpable "fibrositic" nodules responded symptomatically to the application of curare by electrophoresis The nodules were present in the muscles of the neck, the shoulder, and pelvic girdles In two instances where post-traumatic scar tissue caused painful muscular spasm, complete relief of pain resulted from the use of curare *

Acute Low Back Pain —One patient, a man aged fifty years, was stricken with an attack of acute pain in the lower back after lifting a heavy bag of flour In this case, curare was applied to the lumbosacral region with excellent symptomatic relief

A lesion of the fifth intervertebral disk was responsible for another case of acute low back pain which was aggravated by movement, coughing, or straining Curare relieved the pain considerably This treatment was supplemented with other measures, including fracture boards, rest, and heat

Lesions of the Vertebral Column —Two patients with pain in the neck due to osteoarthritis of the cervical spine were treated with curare The drug was applied to the posterior aspect of the neck, greatly relieving the painful muscle spasm

In two other patients with osteoarthritis of the lumbar spine, curare was introduced into the tissues of the involved region while the negative electrode was placed over Scarpa's triangle. Gratifying relief of muscular spasm and pain was obtained

In two women with pain in the neck, x-ray examination disclosed the presence of old fractures of the cervical spine These patients responded to curare Pain and muscle spasm were relieved, and mobility of the cervical spine was increased

Chronic Arthritis —Two women and one man with osteoarthritis of the knee joints responded better to curare than two other women with rheumatoid arthritis of the wrists The small number of cases does not allow definite conclusions as to the value of curare in chronic arthritis

Traumatic Arthritis —In one case of subacute traumatic arthritis of the right ankle the pain was diminished and the mobility increased after four treatments with curare

Summary

1 A preliminary report is presented on the local use and therapeutic action of curare administered by electrophoresis

2 Curare was administered to 31 patients suffering from various ailments including facial contracture, fibrositis, neck and low back pain, and chronic arthritis of the spine and peripheral joints

3 Electrophoresis has been performed according to the method advocated by Bourguignon The essential features of this technic are small electrodes, low intensity galvanic current, and transverse position of the electrodes

4 The therapeutic results were gratifying but not uniform No unpleasant systemic reactions were observed

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*One should be aware of the fact that areas of spasm associated with pain and tenderness in the muscles of the neck, shoulder girdle or back may be symptoms of spinal nerve root involvement Fibrositic deposits are not infrequently confused with fat lobules which herniated through their fibrous investing membrane.[4] Such fibrofatty tissue structures may cause painful spasm in neighboring muscles

TORSION OF THE OMENTUM

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(From the Lutheran and Swedish Hospitals)

THE discovery of blood or blood-stained fluid in the abdomen in the course of operations for acute surgical emergencies, especially those diagnosed preoperatively as acute appendicitis, should direct the surgeon's attention to the possibility of an existing omental torsion This condition as one of the causes of intra-abdominal bleeding is not sufficiently stressed in the literature, and, unless special pains are taken to examine the omentum, may not be recognized at operation

Torsion of the omentum is a condition almost never diagnosed correctly preoperatively, notwithstanding the fact that the majority of cases have been reported by experienced surgeons About 400 cases have been listed in the world literature to date, but undoubtedly this syndrome presents itself much more frequently than is recorded [1-8]

In four out of five cases the preoperative diagnosis is acute appendicitis, since the symptom complex is usually localized about the right lower quadrant of the abdomen However, omental torsion may simulate almost any other acute surgical condition, such as perforated peptic ulcer, pancreatitis, acute cholecystitis, or strangulated hernia

The signs and symptoms in general are those of an "acute surgical abdomen" Often, however, they may not be quite so pronounced as those of the more common surgical emergencies, so that there may be a delay of from twenty-four to forty-eight hours before surgical intervention appears mandatory A variety of differential features, such as palpation of an abdominal mass, paucity of vomiting, relief of symptoms in the prone position, etc , have been stressed by a number of authors However, these patients usually are moderately obese so that any mass present, especially if not of great size, is either difficult or impossible to palpate through the abdominal wall Furthermore, the various points of differential diagnosis that have been enumerated are usually too vague to be of practical value to the operating surgeon At any rate, whether diagnosed correctly preoperatively or not, torsion of the omentum is a surgical emergency and requires prompt operative intervention

Types

Torsion of the omentum may be complete or incomplete and either acute or recurrent

Two types of omental torsion are found

1 *Primary torsion*, due to no definitely known cause, is usually found in the obese individual A plausible theory is that the heavy, fat-laden omentum may rotate about the larger vessels in its substance which are acting as a pedicle, similar to the maneuver which results in a twisted ovarian cyst A history of sudden trauma or unusual exertion which is said to initiate this twisting motion is not often elicited, and a correct preoperative diagnosis is a great rarity

2 Secondary torsion is due to twisting of the omentum about its axis when its distal end is anchored by adhesions to an abdominal operative scar, neoplastic or inflammatory intra-abdominal pathology, or a hernial sac The last type, simulating a strangulated hernia, is relatively common and should be the one most amenable to a correct preoperative diagnosis

All or only a portion of the omentum may be involved The amount of blood found in the abdomen at operation depends, of course, upon the degree to which the torsion has embarrassed the vascular supply of the involved omentum If torsion is incomplete and of short duration, only edema and congestion may be present If complete, strangulation occurs First, there is occlusion of the omental veins, followed by thrombosis, then hemorrhage through ruptured capillaries If it is unrelieved, arterial occlusion and necrosis of the affected omentum follows

Resection of the involved omental mass is sufficient to effect a cure and is strongly advisable, in order to prevent a recurrence, even if the omentum is still viable

Recurrent torsion of the omentum is a definite entity If exploration is carried out because of recurrent attacks of abdominal pain, a thorough inspection of the great omentum should never be omitted Induration or healed infarction of a portion of the omentum may be evidence of spontaneous subsidence of an omental torsion

Mortality rates have dropped steadily, mainly because of earlier operative intervention Earlier reports of ten to fifteen years ago listed a mortality of 15 per cent A British report from 1945 recorded an operative mortality of 5½ per cent [4] Certainly, with prompt surgery there should be little or no mortality in this condition

Three previously unreported cases are presented in abstract as illustrative of the symptom complex that may be present

Case Reports

Primary Torsion of the Omentum

Case 1—E S, an obese, eight-year-old white girl, was admitted to the hospital with a history of right lower quadrant pain of twenty-four hours duration The pain was stated to radiate from McBurney's point to the back and along the medial aspect of the right thigh. The patient was nauseous but had not vomited There was a history of constipation of long duration Temperature was 101 F A leukocytosis of 17,900 white blood cells with 79 per cent polymorphonuclears, 16 stab forms was present

Abdominal examination revealed tenderness and muscle spasm localized only to the right lower quadrant, with slight rebound tenderness over McBurney's point Rectal examination was negative A diagnosis of acute appendicitis was made At operation a large quantity of bloody fluid was found in the abdomen The abdomen was explored and an egg-sized mass of omentum was found in the upper abdomen, unattached to any other organ This mass was partially necrotic and densely hemorrhagic Following resection, the patient made an uneventful recovery

Case 2—A. P, a forty-four-year-old white woman, was admitted with a history of upper abdominal pain of twenty-four hours duration Leukocytosis and a temperature of 101 F were present Because physical findings were not clear cut, it was decided to observe this patient for a short period. The pain increased in intensity and an exploration was decided upon Preoperative diagnosis was acute cholecystitis At laparotomy, a large quantity of blood-stained fluid was found The bleeding was observed to originate from a large hemorrhagic segment of omentum which was found to be in complete torsion about its long axis. The gallbladder was uninflamed but contained a number of calculi After resection of the infarcted omentum and cholecystectomy, the patient recovered uneventfully

Secondary Torsion of the Omentum

Case 3—J O'D, a forty-two-year-old white man, a confirmed alcoholic, was admitted with a story of generalized abdominal pain of six hours duration For the past ten years this patient had been treated for duodenal ulcer A laparotomy (gastrorrhaphy) for perforated duodenal ulcer had been performed four years previously For the past three months the patient had experienced recurrent attacks of severe upper abdominal pain and, because of his history, was treated for ulcer His present illness began six hours before admission with severe upper abdominal pain which soon became generalized over the entire abdomen There was no vomiting Leukocytosis was present A scout film of the abdomen was negative for pneumoperitoneum. The patient was in shock and his physical findings were those of a perforated peptic ulcer After suitable preparation, the abdomen was opened, and a considerable quantity of bloody fluid was found The entire large omentum was hemorrhagic. Its free edge was adherent to site of the old operative scar, and complete torsion with strangulation of the omentum had occurred Recovery followed resection of the great omentum

Summary

1 The presence of bloody fluid in the abdomen is an important finding in torsion of the great omentum This condition should be kept in mind in any acute surgical emergency when operative findings do not coincide with the preoperative diagnosis

2 When laparotomy is performed for recurrent, vague, abdominal pain, especially right lower quadrant pain, a thorough inspection of the great omentum should never be omitted

3 Torsion of the omentum may simulate any one of the more common surgical emergencies

4 Recurrent torsion and detorsion is a definite clinical entity and should be considered more frequently in differential diagnosis

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STANDARDIZATION OF SURGICAL SUTURES

The Commodity Standards Division of the National Bureau of Standards has issued a series of recommendations for the types and sizes of surgical sutures, copies of which may be obtained by addressing the National Bureau of Standards at Washington 25, D C

Case Reports

THE BRENNER TUMOR

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(*From the Department of Pathology and Medical Research of the Bronx Hospital*)

THE Brenner tumor is an unusual type of non-malignant epithelial ovarian neoplasm Orthmann first described it, classifying it as a fibroepithelioma [1] Brenner was the first observer to segregate it as a distinct entity and called it "oöphoroma folliculare "[2] Although its origin has not yet been definitely determined, the tumor probably arises from collections of indifferent epithelial cells—Walthard's cell nests—in the ovary [3 4] Microscopic cell nests, composed of cells resembling those composing the Brenner tumor, have repeatedly been found in the hilus of an otherwise normal ovary

These tumors are not accompanied by a distinctive clinical picture As a rule, unless they produce symptoms because of their size or situation, they are discovered only by accident As far as is known, they have no hormonal action They are benign, and they do not produce ascites and do not metastasize or recur [5]

We wish to report four cases occurring at the Bronx Hospital from 1932 to 1948, inclusive

Case Reports

Case 1 —A N , a fifty-two-year-old white housewife, was admitted on October 21, 1941, because of painless vaginal bleeding on several occasions during the past six months She was a gravida III, Para 2 Her menopause had occurred six years previous to this admission

Examination was essentially negative except for a large mass arising from the right adnexa reaching almost to the umbilicus

Through a left paramedian incision, a right salpingo-oöphorectomy and appendectomy were done under spinal anesthesia

The specimen received was a 22 cm by 17 cm cystic mass The surface was smooth and blush-pink in color On section, it was multilocular and was filled with a clear serous fluid One area showed a solid tumor mass 7 by 4 5 cm. in size, hard in consistency, and yellowish-white in color

Microscopically, section of the cyst wall revealed a papillary serous cystadenoma Sections of the solid mass forming part of the cyst wall showed solid and cystic masses of spindle-shaped or epithelial-like cells scattered in a rather sparse manner throughout a dense, hyalinized connective tissue stroma (Fig 1) In many areas these cell nests were grouped about a lumen Diagnosis was Brenner tumor of the ovary

The patient made an uneventful recovery and was discharged well on the twelfth postoperative day Follow-up studies in 1947 (six years after operation) reported the patient alive and well.

Case 2 —A forty-nine-year-old white woman was admitted on May 18, 1942, because of backache and urinary frequency of a year duration Menstrual periods began at age fourteen They were of the thirty-day type with a three-day flow Her last menstrual period was on May 10, 1942 She was a gravida V, Para 4

Examination revealed a normal-sized uterus Attached to the posterior surface was a firm, nodular, asymmetric mass about the size of a grapefruit The adnexa were normal



FIG 1 Solid and cystic masses of spindle-shaped cells in a dense hyalinized connective tissue stroma (300 ×)

Under spinal anesthesia, through a midline incision, a supravaginal hysterectomy and bilateral salpingo-oöphorectomy were performed

The specimen was attached to the posterior surface of the uterus at the level of the internal, a 15 by 13 by 7-cm nodular, encapsulated mass which, on microscopic section, proved to be a hyalinized fibromyoma Section through the ovary showed scattered small epithelial cell nests, some of which were solid, others cystic, with areas of ovum-like formation The cell nests were surrounded by a definite fibromatous stroma (Fig 2) Diagnosis was Brenner tumor of ovary and myoma of uteri

At a five-year follow-up, this patient was alive and well

Case 3—R S, age forty-eight, married, white, was admitted on January 13, 1948, because of increasing menorrhagia of four months duration She was a gravida III, Para 2 A diagnostic curettage, done in December, 1947, at another institution, was reported as showing early adenocarcinoma of the uterus Examination on admission revealed a uterus which was normal in size, shape, and consistency and freely movable

On January 18, 1947, under spinal anesthesia, a total abdominal hysterectomy and bilateral salpingo-oöphorectomy were performed.

Pathologic examination of the uterus showed no evidence of carcinoma. Section of the ovarian tumor nodule revealed epithelial islands, some of which had cystic centers and evidence of secretion They were located within a dense fibrous stroma and resembled pseudofollicles Diagnosis was Brenner tumor of ovary

Case 4—B S, a fifty-year-old white woman, was admitted February 18, 1948, because of progressively increasing menorrhagia since July, 1947 She was a gravida V, Para 3 Her last menstrual period was on February 1, 1948



Fig 2 Small epithelial cell nests surrounded by a fibromatous stroma (300 ×)



Fig 3 Two encapsulated cell nests surrounded by a well-defined fibromatous stroma (300 ×)

A preoperative diagnosis of fibromyoma uteri was made Under general anesthesia a supravaginal hysterectomy and bilateral salpingo-oöphorectomy were performed

Pathologic examination of the uterus showed a cellular fibromyoma The tubes and ovaries showed no gross pathologic changes Sections of one ovary contained two encapsulated epithelial cell nests surrounded by a well-defined fibromatous stroma (Fig 3)

The diagnosis was early Brenner tumor of the ovary

Summary

Four cases of Brenner tumor of the ovary are reported where the diagnosis was made only after pathologic examination of the operative specimens. In two instances (cases 2 and 4) the tumor was only an accidental finding associated with other primary gynecologic conditions for which the patients were operated

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I am indebted to Dr Joseph Felsen director of the Department of Pathology and Medical Research Bronx Hospital for his helpful suggestions in the preparation of this report and to Dr A J Fleischer Dr H J Epstein and Dr Irving Smiley for their assistance

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HEMATOMA OF THE UMBILICAL CORD

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(From the Department of Obstetrics and Gynecology, Fordham Hospital)

HEMATOMA of the umbilical cord is an extremely rare complication of pregnancy In a review of the literature on the subject up to 1940, Dippel was able to collect only 36 cases [1] He states that the incidence of this rare abnormality of the umbilical cord is one in 5,505, at or near term Zamboni, however, in a study of 10,295 placentas did not find one hematoma of the umbilical cord [2]

Because of the rarity of this complication of pregnancy, the following case is reported

Case Report

A. F, a twenty-five-year-old white, gravida II, Para 1, clinic patient, was admitted on April 25, 1948, in active labor Expected date of confinement was April 19, 1948 In December, 1947, she had sustained a severe blow in the abdomen, and in January, 1948, she fell, striking on her abdomen These traumatic episodes were not accompanied or followed by either cramps or vaginal bleeding The prenatal course was otherwise uneventful

On admission, the uterus was enlarged to four fingers below the xiphoid process, vertex presentation, left occipitoanterior position with the presenting part unengaged Labor progressed normally, and patient was fully dilated seven and one-half hours after onset of labor At this time, the membranes ruptured with a gush of blood-stained amniotic fluid, immediately followed by vaginal bleeding of bright red blood Under pudendal block, the patient was immediately delivered of a living child that cried spontaneously Two loops of cord were noted loosely coiled about the baby's neck The placenta and membranes were delivered intact by the Brandt maneuver after a third stage of five minutes Bleeding ceased following delivery of the placenta. Estimated blood loss was about 200 cc



FIG 1 Hemotoma located on fetal surface of placenta enclosed between the amnion and chorion



FIG 2 Fetal surface of placenta with hematoma removed Silver wire passing through the point of rupture into umbilical vein

Examination of the placenta and membranes revealed the following The placenta was circular in shape, 18 cm. in diameter and weighed 454 Gm On the fetal surface of the placenta, enclosed between the amnion and chorion, was a large, irregularly wedge-shaped hematoma measuring 6 cm at its base Dissection of the umbilical vessels revealed a small longitudinal opening 1 cm. in length in one of the smaller umbilical veins This rent in the vessel was at a point 1 cm. from the fetal surface of the placenta (Figs. 1 and 2) Histologic examination of the vessel wall revealed a moderately thickened intima At one portion of the wall, a degenerative process had taken place in the muscularis with deposition of irregular small pieces of calcium amid splintered muscle and cloudy-appearing collagen The adventitia presented chorionic villi attached to its outer

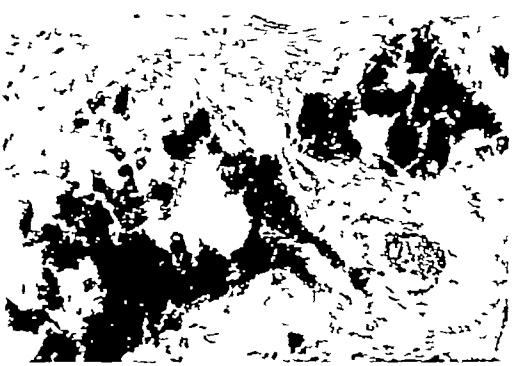


FIG 3 Vessel wall revealing deposition of irregular small pieces of calcium amid splintered muscle and cloudy-appearing collagen

Presented at a meeting of the Bronx Obstetrical and Gynecological Society January 24, 1948.

wall with trophoblastic cell nests and an occasional villus within the adventitial wall (Fig 3)

Comment

Rupture of the umbilical cord has been attributed to many causes absolute or relative shortening of the cord varicosities of the cord, trauma to the cord by the presenting part, passive congestion and diapedesis of blood, rupture of membranes, and intrinsic anomalies of the vessel wall [3–5] In our case, the collagen degeneration and calcification of the vessel wall resulted in weakness of the wall with eventual rupture at the weak point when subjected to the stresses of labor and delivery of the fetus

The hematoma is usually located near the umbilicus Dippel reported only one case where the hematoma originated within 5 cm. of the placenta It is this hematoma compressing the umbilical vessels with resulting anoxemia of the fetus that results in such a high fetal mortality Fifty per cent of all fetuses with hematoma of the cord are stillborn The fact that the hemorrhage in this case was primarily confined to the fetal surface of the placenta was an important factor in permitting us to obtain a living child, although there was the possibility that, if the patient had not delivered as soon as she did, following rupture of the membranes, the child might have exsanguinated via the ruptured vein wall

The diagnosis of hematoma of the cord is a difficult if not an impossible one to make prior to delivery, since there are no pathognomonic signs or symptoms that can be attributed to this accident, although fetal distress and vaginal bleeding prior to or during delivery are clinical evidences of a ruptured hematoma of the cord However, as these clinical signs are seen more frequently with other complications of pregnancy and labor, the diagnosis of hematoma will often be overlooked in favor of other more commonly occurring complications

Summary

1 A case is reported of hematoma of the umbilical cord, a rare complication of pregnancy and labor

2 The collagen degeneration and calcium deposition in the muscularis of the wall caused a weakening of the vessel wall which ruptured when subjected to the stresses of labor and delivery of the fetus

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HEALTH STATISTICS AND HEALTH INSURANCE

The use of statistics to prove a case is an effective promotional device Somehow it always seems impressive even though we know the ambiguity of statistical findings Thus the figures on draft rejections were used to "prove" that the health of the American people was bad even though a large proportion of the rejections were for nonmedical reasons, and most of the remainder were for static defects (mental deficiency, for instance, or congenital deformities) which would never have been responsive to medical care anyway Government figures now show the health of the people to be at an all time high, though the same agencies which release the figures are also urging sweeping reforms to overcome "deficiencies" in medical care

Suppose an impartial observer wanted to measure the adequacy of compulsory health insurance by comparing morbidity or mortality figures In the first place, he would run into difficulty because no two countries are medically comparable Even if he were to dismiss this difficulty, he would still find the figures useless Or, more exactly, he would find the figures malleable to the point where he could prove anything The Research Council for Economic Security has actually studied health indices, and they offer us a fascinating grab bag of facts from which we can pull any conclusion we want For example, in 1938, New Zealand and France had compulsory health insurance programs, and the United States did not Infant mortality rates for the three countries were, respectively, 35, 66, and 51 This proves (*a*) Compulsory health insurance reduces infant mortality because the rate was 35 in New Zealand compared to 51 in the U S A , or (*b*) Compulsory health insurance means poor health, because the infant mortality rate was 66 in France compared with 51 in the United States If you used tuberculosis rates, you would get a similar set of figures How about life-expectancy? The health-insured French republic (prewar) had a male life expectancy, at birth, of 56, in the U S A it was 62, in New Zealand, 65½

Actually these figures *do* suggest something They indicate that climate, nutrition, and general living standards show a much closer correlation with morbidity and mortality rates than do methods of distributing medical care

Government efforts at improving health standards would be more effective if directed toward improvement in housing, nutrition, education, and living conditions generally Improvement in medical technics can safely be left to the medical scientist — *Editorial, Journal of the Medical Society of New Jersey, May, 1940*

ADENOMA OF BARTHOLIN'S GLAND

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(From New York Polyclinic Medical School and Hospital)

CARCINOMA of Bartholin's gland is a rarity, only 79 cases having been reported in the literature up to 1947 However, if a review of the literature is an index, adenoma of Bartholin's gland is even more rare A careful review of the American and foreign literature from 1901 to 1948 has failed to reveal one reported case of adenoma of Bartholin's gland

Case Report

D L , thirty-one years old, white, married, presented herself with the chief complaint of swelling of the left labia Past history was negative She was a gravida I, Para 1, had started menstruating at the age of sixteen, with a normal cycle approximately every thirty days

Two and one-half years ago the patient noted a swelling in the left labia majora She was seen by a physician, and an incision and drainage of the mass was performed She was told she had a "cyst" Shortly after the operation, the patient noted that the mass was still there The mass had been growing since, more especially during the past eight months, when the increase in size had been more rapid There was no pain associated with the growth, no increased discharge, and no intermittent decrease in the size of the swelling

Physical examination revealed a well-developed, well-nourished white woman General physical examination revealed a swelling at the lower aspect of the left labia majora that measured approximately 3 by 2 by 2 cm. The mass was cystlike in consistency, except at the edges where it was somewhat firmer The mass was not tender and was well demarcated from the surrounding tissues with no adherence to the skin Pressure upon the mass did not cause any secretion to appear at the orifice of the gland No evidence of inflammation was present A moderate relaxation of the anterior and posterior vaginal walls was present The cervix was eroded The uterus was small, anteflexed, retrocessed, and the right ovary was cystic The diagnosis was recurrent cyst of Bartholin's gland

Operation was performed April, 1948, under sodium pentothal anesthesia. An incision was made at the mucocutaneous junction of the labia majora and carried down to expose the encapsulated wall of the mass which was dissected free from the surrounding tissue Brisk bleeding was encountered during this procedure The entire mass, which extended quite high, was removed in toto The bleeding was controlled, and the wound was closed with plain catgut

The pathologist's report was as follows The specimen consists of a small mass of tissue 4 cm in diameter It has a roughened surface and on section shows a pink-yellow structure Microscopic examination shows cyst wall containing numerous mucous glands and partially lined by stratified epithelium. The glands are hyperplastic, and there is some mononuclear infiltration (Fig 1) *Diagnosis* Bartholin's cyst, adenoma of Bartholin's gland

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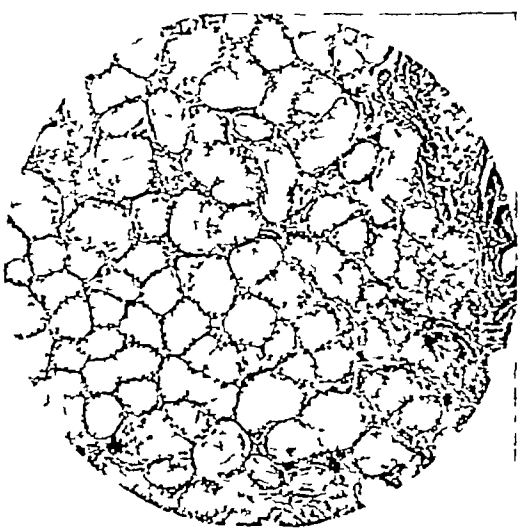


FIG 1 Adenoma of Bartholin's gland

FIND WAY TO CHECK RADIATION HEMORRHAGE

A method of checking severe bleeding from radiation and in leukemia, cancer of the blood-forming tissues, has been reported by University of Chicago doctors who were awarded a gold medal in the 1948 scientific exhibit of the American Medical Association for the originality of their research

Toluidine blue and protamine sulfate was given by injection in three cases of radiation hemorrhage, and in all cases bleeding was stopped In one patient, a forty-year-old woman who had received x-ray therapy and four months of treatment with radioactive phosphorus for cancer, bleeding stopped eight hours after the first injection of toluidine blue

Although the drugs are not described as having a curative effect against leukemia, results against bleeding in leukemia patients are extremely favorable In seven of eight cases the bleeding was stopped, and in the remaining case it was lessened.

Hemorrhage after labor was stopped by the drugs in the five cases in which they were used. Two patients with hemophilia did not respond to the drugs

Findings suggest that hemorrhage in four other patients may have been related in part to endocrine disturbances, especially of the estrogens Hemorrhagic complications of these patients responded to toluidine blue and protamine sulfate

Special Article

PRESIDENT'S ADDRESS—ANNUAL MEETING, 1949

LEO F SIMPSON, M D , Rochester, New York

IT HAS, indeed, been a great privilege for me to have served as your president this past year

I would, first of all, express my heartfelt appreciation to those who have worked with me Without their aid, without their loyalty, the load would have been too heavy It has been a rewarding experience for me, one which I shall ever cherish, and one for which I am humbly grateful

You will be honored next year by having Dr *John Masterson as my successor* He is able, wise, and courageous, and I know he will fully justify the wisdom of your House of Delegates in selecting him He will need your help Give it to him with your whole heart.

This last year has given me an opportunity to repay, in some small measure, the debt which I owe to medicine Medicine gives a man the *opportunity, if* he will, to follow a way of life that has been developed by generations of men, dedicated, as in almost no other tradition, to the service and welfare of their fellow men

There is considerable evidence that the well-earned love, honor, and respect which were given to our forebears in medicine are definitely on the wane in this country Especially is this true in the cities. It may be that other rewards, having greater value *in the market place, are more welcome*

There is even more evidence that a movement is on foot to take the control of our destinies away from us completely This would be pernicious, and a calamity for our patients. Under the A M.A. we are fighting this, with ever-increasing *intensity and at* great expense All programs of national education are costly, but we do it gladly, for the danger is immediate We carry within ourselves, however, the greatest aid to the campaign of the A.M A., one that is inexpensive and increasingly effective with the passage of time

We are trying to maintain the ideals of a great profession in what has grown to be one of the greatest industries in the United States—the care of the sick Surely the scientific capabilities of the doctor of today are far in excess of anything his forebears had to offer We have great medical schools and hospitals, fine doctors in these hospitals, in general practice, in clinics, in partnerships, in groups, a *great corps of specialists*—all striving to fill the need of good medical care We have created a multitude of tests, a horde of technicians to satisfy our scientific curiosity and to learn infinitely more about physical disease The quality of medical care is ever better, but it is, in addition, more expensive. I fear that it may be tending to become more impersonal, and so widen the gap between physician and patient

The thought occurs also that all of these facilities do not seem to be making very rapid headway toward the real goal of medicine, namely, a rapid decrease in the total amount of suffering in our patients. It seems to remain the same in quantity, although its forms may be changing In the opinion of the government, however, it would seem that we need vastly more of the same, even to stay in the race.

We are living in an age of tremendous unrest and change Formidable forces are at work with devastating rapidity New instrumentalities of science and invention are transforming our lives. Our efforts to keep our place in this modern and bewildering parade have left a large portion of our people tense, anxious, confused, and, I fear, willing to accept subsidy Couple this with the fact that man is the only animal with the peculiar knowledge that he is going to die, and you can see why our hospitals and offices are ever full of patients, ill both in body and in mind

All is changing but man himself In the mass he is essentially as he was centuries ago, and as one index of the present-day struggle we have the record that one person in thirteen in this country is being treated for some disease of the mind This, indeed, is a choice indictment. If this is any indication of our *future trend, we must quickly decide* whether the happiness of man or his prosperity should be our goal

That is why we must narrow the gap between the physician and the patient, for our patients' sake, for *our own sake, and for the sake of the great medical* profession as it fights the evils that beset it.

That is why it is so important that the practicing physician strive to occupy the place in society as depicted in Fildes' great painting, "The Doctor," and of Doctor McClure so wonderfully described by Ian Maclaren in his beautiful story, "A Doctor of the Old School "

That is why we must realize that psychosomatic medicine *is not a small part of medicine—it runs all through medicine*

That is why I have tried in my small way, during *the past year, to urge the immense practical value of the spiritual side of the practice of medicine, with*out which, in my opinion, we will die as a great profession and be transformed into one having an adding machine for its insignia rather than the caduceus—*and be treated accordingly*

I have spoken of the ever-present necessity of translating into action the virtues of charity, of unselfishness, of taking an intense personal interest not only in our patients' diseases, but also in their troubles, of ever, in all humility, becoming better artists in the care of the sick, in the care of the patient immediately at hand

When the physician exercises these virtues he closes the gap between himself and his patient Then he becomes the greatest public relations agent for the medical profession He will have, moreover, a great joy in living with himself, a consciousness of an ever-increasing value to humanity, and become the beneficiary of love and affection bestowed on only a chosen few

And what is more important, he can also be trusted ever to carry on high the torch of American medicine, a torch that should never be extinguished in any hostile environment

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Presented at the Annual Meeting of the Medical Society of the State of New York Hotel Statler Buffalo May 4 1949 by the retiring president.

NECROLOGY

Theodore Prudden Bailey, M.D, ninety-one, died on May 22 at St Peter's Hospital, Albany Dr Bailey, who had lived in Albany for eighty-three years, was born in Casette, Alabama, and came to Albany as a small boy He studied for a time at West Point and received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1880 Dr Bailey was a member of the New York State and Albany County Medical Societies and the American Medical Association

Nejib George Barbour, M D, a specialist in internal medicine, died on May 25 after a long illness Dr Barbour was eighty-three years old Born in Beirut, Syria, he studied at the American University at Beirut where he received his medical degree in 1887 and did postgraduate work in Paris From 1889 to 1894 he was assistant to Dr Cornelius Van Dyke at St George Hospital, Beirut, and in 1893 taught physiology and hygiene at the Greek College for Girls in Beirut

From 1916 until his death, Dr Barbour practiced in Brooklyn He was a former representative to the French consulate of the Libano-Syrian colony in the United States and from 1926 to 1932 was physician to the French Consul General. A Chevalier of the French Legion of Honor, Dr Barbour was a member of the American Medical Association and the New York State and Kings County Medical Societies

Salvatore Benanti, M D, seventy-three, a practicing physician in Brooklyn for more than thirty years, died on May 20 after a long illness Dr Benanti, a native of Italy, came to this country in 1905 and graduated from Long Island College Hospital in 1910 His internship and early professional years were spent in association with that hospital.

Since his retirement in 1941, he had devoted himself to literature, had written for various Italian publications, and was the author of three books Dr Benanti was a former member of the Kings County and New York State Medical Societies and the American Medical Association

Jacob Byer, M.D, of New York City, died on May 7 Dr Byer, a graduate of the University of Maryland School of Medicine and College of Physicians and Surgeons in 1932, was formerly adjunct physical therapist and assistant physician on the staff of Montefiore Hospital He was also a member of the New York State and County Medical Societies and the American Medical Association

Frederick A. Carpenter, M.D, ninety-three, New York State's second oldest practicing physician, died in May Dr Carpenter received his medical education at the Eclectic Medical College of Cincinnati, graduating in 1889 He began his practice in Middletown, New York, serving there as city physician and was also surgeon for the Grand Army of the Republic during that period In 1892 he moved to New York where he practiced until 1912 and was a member of the staff of the Nose and Throat clinic while there

In 1912 Dr Carpenter settled in Waverly where he was school physician for sixteen years, an examiner for the Metropolitan Life Insurance Company, and was an associate staff physician of the Tioga County General Hospital

Dr Carpenter was honored by the Medical Society of the State of New York in 1947 for his more than fifty years in the practice of medicine A past-president of the Tioga County Medical Society, he was also a member of the New York State Medical Society and the American Medical Association

Benjamin Milton Cissel, M D, died of a heart attack on May 31 at the age of fifty-six Dr Cissel received his medical degree from Johns Hopkins University School of Medicine in 1919, was appointed resident surgeon at the Long Island College Hospital the following year, and attending surgeon five years later In 1931 he joined the staff of Kings County Hospital and was appointed director of surgery in the Long Island College division of that hospital last August Dr Cissel was also a professor of clinical surgery at Long Island College of Medicine and director of surgery at Swedish Hospital, Brooklyn

Dr Cissel was a diplomate of the American Board of Surgery and a fellow of the American College of Surgeons and the New York Academy of Medicine. He was a member of the New York State and Kings County Medical Societies, the Brooklyn Surgical Society, and the American Medical Association.

David Leonard Cohen, M D, forty-seven, urologist and surgeon, died on June 1 After receiving his bachelor's degree at City College of New York where he was elected to Phi Beta Kappa, Dr Cohen enrolled in the school of engineering at Cornell University, later decided against this, and transferred to the New York University College of Medicine from which he was graduated in 1930 He interned at Beth Israel Hospital where he was a member of the alumni association and the junior medical board Formerly on the staff of the Montefiore Hospital, Bronx, at the time of his death Dr Cohen was assistant adjunct surgeon in the department of urology at Beth Israel Hospital.

Dr Cohen was a diplomate of the American Board of Urology and was a member of the American Urological Association, the American Medical Association, the New York State and County Medical Societies, and a fellow of the New York Academy of Medicine. In the second World War he served in the Middle East in the Army Medical Corps with the rank of major

Robert H. Fisher, M.D, seventy-seven-year-old former physician of Ithaca, died on May 26 Dr Fisher was graduated from the University of Buffalo School of Medicine in 1895 Retired in 1935 and since then a resident of Los Altos California, he had been the first health officer and coroner in Tioga County and was at one time president of the Village

of Spencer Formerly associated with Memorial Hospital, Ithaca, and a past-president of the Tompkins County Medical Society, Dr Fisher had also been a member of the American Medical Association and the New York State Medical Society

Elliott Moriarty Hague, M.D , seventy-nine-year-old Rochester physician, died on May 6 An associate staff physician at Genesee Hospital and Highland Hospital until his retirement several months ago Dr Hague was graduated from the University of Pennsylvania Medical School in 1897 He began practice in Rochester in 1898 and continued until his retirement when he moved to Buffalo Dr Hague was a member of the Rochester Academy of Medicine.

Eli Herr Long, M.D , a medical practitioner in Buffalo for more than forty years, died on May 31 at the age of eighty-eight. Dr Long a graduate of the University of Buffalo School of Medicine in the class of 1882, was a former professor at the schools of medicine, dentistry, and pharmacy of the University of Buffalo He was a member of the Buffalo Academy of Medicine, the New York State and Erie County Medical Societies, and the American Medical Association.

Alexander Mark, M.D , Elmira, died on May 18. Dr Mark was seventy-seven years old. At the time of his death he was a consultant physician on the staff of St. Joseph's Hospital, Elmira. He was a member of the New York State and Chemung County Medical Societies and the American Medical Association and had received his medical degree in 1899 from the Medico-Chirurgical College of Philadelphia.

Walter Latham Rathbun, M.D , seventy-year-old Cassadaga physician, died on April 28 after a long illness. Dr Rathbun was graduated from the Yale University College of Medicine in 1903 After having been in charge of the New York City Sanatorium at Otisville and the Stony Wold Sanatorium, Dr Rathbun, a native of Connecticut, settled in Cassadaga twenty-five years ago At Cassadaga Dr Rathbun helped develop and was active in the research and use of streptomycin treatment for tuberculosis. A special fund, named in his honor, was set up to be used in the purchase of the drug for needy patients and to permit continued research in its use at Newton Memorial Hospital. Dr Rathbun was formerly superintendent of the Newton Hospital.

Dr Rathbun was a member of the New York State and Chautauqua County Medical Societies, the American Medical Association, and the American Clinical and Climatological Society

William Dennis Scanlan, M.D., general practitioner in Brooklyn for the past thirty-eight years, died on May 29 at the age of sixty-eight. Dr Scanlan was graduated from the Long Island College Hospital in 1907 and served his internship at Kings County Hospital. He was a resident physician at Kingston Avenue Hospital for Contagious Diseases in Brooklyn and at the time of his death was assistant physician at Samaritan Hospital. He was also a member of the American Medical Association and the New York State and Kings County Medical Societies.

In 1903, following graduation from Syracuse University where he was a pitcher on the baseball team Dr Scanlan joined the Pittsburgh team of the National League. In 1904 he went to the Brooklyn team of the same league and pitched for them until 1907 and again from 1909 to 1911 In his best Brooklyn year Dr Scanlan won eighteen and lost twelve games.

John Joseph Shea, M.D , died on May 28. Eighty-two-year-old Dr Shea had practiced medicine in Greenwich Village, New York, from 1890 until his retirement ten years ago A native of New York City, Dr Shea was a member of the class of 1891 of the New York University College of Medicine

John Sherburne, M.D , fifty-seven, of Queens, died on May 23 after a long illness. Dr Sherburne received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1919 and at the time of his death was a member of the staffs of Doctors' Hospital, New York, and St. John's and Mary Immaculate Hospitals in Queens. Dr Sherburne belonged to the New York State and Queens County Medical Societies and the American Medical Association.

Harry Knibb Tebbutt, Jr , M.D , Albany eye, ear, nose, and throat specialist, died on June 8 at the age of fifty-seven. After graduation from Albany Medical College in 1916, Dr Tebbutt served with Troop G New York National Guard, in the Mexican Border Campaign in 1916 He went to France in World War I as medical officer, Machine Gun Battalion 27th Division, with the rank of captain.

He had been attending otolaryngologist at Albany Hospital for the last twenty-five years and was also a consulting otolaryngologist on the staffs of Ludington Hospital, Ticonderoga, and Memorial Hospital, Catskill. He became assistant professor of otolaryngology at Albany Medical College in 1937 and was named associate professor in 1938 A diplomate of the American Board of Otolaryngology, Dr Tebbutt was a member of the Triological Society, honorary medical group, the American Medical Association, the American Academy of Ophthalmology and Otolaryngology, the American Laryngology, Rhinology, and Otolaryngology Society, and the New York State and Albany County Medical Societies.

HOSPITAL NEWS

Hospital Service in the United States

THE annual hospital report of the Council on Medical Education and Hospitals published in a recent issue of the *Journal of the American Medical Association* shows a new high in the utilization of hospital service in continental United States The present bed capacity of 1,423,520 and the average daily census of 1,217,154 are nearly identical with the previous report, but the total of 16,422,772 admissions in 1948 represents an increase of 593,260 in the last year and exceeds also the earlier record of 16,257,402 in 1945

While increases occurred in both the governmental and the nongovernmental divisions, the expansion was not uniform throughout the hospital field The federal hospitals, for example, reported a reduction of about 100,000 admissions, and the hospitals under "individual and partnership" control, 33,000, yet the governmental institutions as a group had a net increase of 86,147 and the nongovernmental hospitals 507,113

The admissions, as here reported, do not include hospital births, which last year totaled 2,794,281 compared with the all time record of 2,837,139 in 1947

The greatest increase in service was in the general hospitals, which reported 15,160,062 admissions and 2,715,645 births These totals represent 92 per cent of all patients admitted and 97 per cent of the hospital births in 1948 Although the bed capacity of this group was reduced in the last year from 592,453 to 576,459, the number of admissions increased by 494,867 With an average daily census of 437,590, the general hospitals in 1948 carried 36 per cent of the daily patient load reported in all registered hospitals

The psychiatric hospitals with a capacity of 691,499 beds admitted 305,000 patients, an increase of 13,046 compared with the previous year While this total represents less than 2 per cent of all admissions, the maintenance of an average daily census of 664,399 indicates that nearly 55 per cent of the occupied hospital beds are utilized for psychiatric care

An increase in tuberculosis hospitalization in the last year is apparent in the report of 105,588 admissions compared with 99,080 in 1947 The tuberculosis hospitals, which have a capacity of 81,993 beds, reported an average daily census of 66,484, or approximately 5 per cent of the total hospital load

Although the number of beds remained practically unchanged in the last year, the increase in hospital admissions did not result in a proportionate gain in the percentage of beds occupied This apparent discrepancy is clarified, however, by the reduced period of hospitalization in the general hospital group, to which 92 per cent of all patients were admitted In 1947 the average patient in a general hospital remained 11 4 days, while in 1948 the average length of stay was 10 5 Last year the over-all hospital occupancy rate was 85 5 per cent as compared with 85 4 in 1947 The percentage in the governmental hospitals increased to 89 0 per cent, but there was a corresponding reduction in the nongovernmental hospitals to 76 7 The general hospitals maintain an average occupancy of 75 9 per cent, but the increase to 96 1 in the psychiatric group indicates that many hospitals in this field operate well beyond their rated capacity

While modern hospitals are primarily engaged in the care of the sick, they are also to an increasing degree participating in educational functions necessary to the maintenance of high standards of hospital service The magnitude of this program is evident in the number of hospitals which have developed educational services for interns, resident physicians, student nurses, and hospital technical personnel. Currently there are 807 hospitals approved for interns and 1,140 for the training of resident physicians The accredited schools of nursing education, which now total 1,163, reported an enrollment of 100,174 student nurses in 1948 There are, in addition, 224 hospital schools approved for the training of x-ray technicians, 383 schools for medical technologists, 25 for occupational therapy technicians, 26 for physical therapy technicians, and 13 for the training of medical record personnel. The generous support which these educational programs have received is a further contribution on the part of the hospital administration and the medical, nursing, and technical staffs to the future needs of the hospital field.

Hospital Survey on Fires Planned

A NATION-WIDE survey of hospitals to reduce the loss of life from fire will be undertaken soon by the National Board of Fire Underwriters in cooperation with hospital and medical organizations, it has been announced.

The survey, which will cover 6,300 institutions and countless private nursing homes and is expected to take a year and a half, was decided upon as a result of the tragic fire on April 4 at St Anthony's Hospital, Effingham, Illinois, which took the lives of 73 persons, including 60 patients.

Directing the project will be a special committee on hospital inspection named by the executive committee of the National Board of Fire Underwriters and headed by Col. Perrin C Cothran of Hartford, Connecticut, vice-president of the Phoenix-Connecticut Group of Insurance Companies

Colonel Cothran emphasized that the inspections would be made entirely on a public service basis without regard to rates, premiums, or other commercial aspects of insurance.

The inspections, to be conducted by 6,000 fire prevention and safety engineers, will begin about July 15

The project will have the cooperation of the American Medical Association, the American Hospital Association and its Council on Hospital Planning and Plant Operation, the Association of Casualty and Surety Companies, and the National Association of Insurance Agents.

The plans contemplate directing inspections first to the hospitals considered most vulnerable to fire and loss of life from fire, or hospitals that are not fire-resistant or equipped with sprinkler and other protective features, Colonel Cothran said

The results of inspections will be furnished on a confidential basis to hospital administrators and other authorities In view of the interest expressed by hospitals and other authorities, it is anticipated that improvements will result

To prevent duplication of effort, inquiries now are being made to learn what general inspections of hospitals are under way or planned in various states and what machinery and organizations exist to perform inspection duties

Dr J J Golub, chairman of the American Hospital Association Council on Hospital Planning, said he hoped one of the results of the survey would be to point to the need for revision in building codes that would permit the wider use of modern fire preventive materials.

Dr Golub said he hoped also that it would give emphasis to the desirability of fire drills and training in evacuation procedures

Mental Hygiene Department Announces Building Plans

CONSTRUCTION has been completed and contracts awarded for several of the infirmaries and hospitals under the jurisdiction of the New York State Department of Mental Hygiene, which includes 27 institutions in the State The State's building program will increase the capacities of several of these institutions, which include 20 hospitals for the mentally ill and six schools for mental defectives

A total of $72,000,000 has been set aside for construction this year to provide additional beds, replace outmoded structures, and make available the most up-to-date facilities for the care of the 98,000 patients in the 27 institutions

Contracts totaling $8,109,770 have been awarded for construction of a 960-bed, Medical-Surgical Building at Hudson River State Hospital in Poughkeepsie, it was announced in a joint statement by Bertram D Tallamy, New York State Superintendent of Public Works, and Dr Frederick MacCurdy, State Commissioner of Mental Hygiene Construction of this new, nine-story modern hospital marks an important step in the initiation of the program to alleviate overcrowding in the mental hospitals urged by Governor Thomas E Dewey as one of the most pressing of the State's needs at this time Contract awards are pending for similar structures at State Hospitals in Buffalo and Binghamton

The first building completed under New York State's postwar construction program to increase facilities of the Department of Mental Hygiene is ready for occupancy, Dr Frederick MacCurdy, commissioner, announced The new building is a 200-bed infirmary at Craig Colony, the department's institution for epileptics, located at Sonyea, Livingston County

The infirmary, equipped with all modern facilities for complete medical care, was officially opened June 9 with an informal program to which directors and other personnel of several hospitals in the vicinity, also the general public, were invited

Dr Willard H Veeder, director of Craig Colony, indicated that moving of patients from other parts of the institution to the new infirmary will be started within a few days. The new building will not only alleviate overcrowding of Craig Colony generally, Dr Veeder pointed out, but will permit more efficient grouping of patients according to age

Craig Colony now houses approximately 2,224 epileptic patients, providing full medical care, including special treatment for convulsive disorders.

NEWS NOTES

At the Presbyterian Hospital, New York City, on June 13, a sculptured bust of the late Dr Hugh Auchincloss was presented to the hospital by members of his family The bronze head, the work of the sculptress Joy Buba, was presented by a brother, Mr Charles C Auchincloss, and accepted by Mr Charles P Cooper president of the hospital The humanity of Dr Auchincloss and his contributions to the advancement of surgery were described by his former associate, Dr Allen O Whipple, and two members of the School of Nursing spoke of Dr Auchincloss' gift of the Florence Nightingale memorabilia collection to the hospital.

Dr Auchincloss died on September 21, 1947, after more than thirty-five years' association with the surgical service of Presbyterian Hospital. He was among the first to perform a radical mastectomy, and he received world-wide acclaim for his monograph on infections of the hand. During the influenza epidemic of 1918, Dr Auchincloss won wide repute for introducing the "Auchincloss tube" for draining the pleural cavity

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On July 1, Dr Thomas J Quigley will assume duties as medical coordinator at Saint Vincent's Hospital, Staten Island. A graduate of Georgetown University Medical School, Dr Quigley is a veteran of three years' service with the Army Medical Corps during World War II.

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Dr Oswald S Lowsley, director of urology at the Brady Foundation of the New York Hospital, received Ecuador's national order, "Al Merito," with the designation of Commendador at a presentation ceremony held April 21 at the New York City home of Dr Homero Viteri-Lafronte, head of Ecuador's delegation to the United Nations

Dr Benjamin Jablons has been appointed visiting physician in peripheral vascular diseases at the Goldwater Memorial Hospital, New York City

On May 17 at the Manhattan General Hospital New York City, Dr Emanuel Revici presented a lecture on "Observations on the Administration of Lipids in Cancer"

The twenty-fifth anniversary of Unity Hospital Brooklyn was celebrated on April 23 with a dinner at the Waldorf-Astoria Hotel, New York City Speakers included Judge Jacob S Strahl, Justice Louis Goldstein and Dr George I Miller Dr Harry Apfel, president of the medical board for the past ten years, was presented with a bronze plaque Dr Meyer Scalar was toastmaster

Dr Samuel Feinstein formerly supervising psychiatrist at the St Lawrence State Hospital in Ogdensburg has been appointed assistant director clinical, at the hospital

Graduate staffs at the Bethesda and St James Hospitals, in Hornell, met on April 14 at the St James Hospital to hear a paper presented by Dr Leon M Roe, of Canisteo, on "Nursing Care in the Rehabilitation of Cerebrovascular Accidents."

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Cornerstone ceremonies for the ten-story, 570-bed Kings County Tuberculosis and Chronic Disease Hospital, in Brooklyn, which will be part of the Kings County Hospital Medical Center, were held on June 10, with Mayor William O'Dwyer as principal speaker Dr Marcus D Kogel, City Commissioner of Hospitals, presided, and brief addresses were given by Borough President John Cashmore of Brooklyn, Dr Joseph Tenopyr, president of the medical board and director of surgery at Kings County Hospital, Dr Irwin E Sims, president of the Kings County Medical Society and the Academy of Medicine of Brooklyn, and Commissioner Frederick H Zurmuhlen of the Department of Public Works, under whose jurisdiction the hospital is being constructed.

The new hospital, estimated to cost $7,300,000 and scheduled for completion in the summer of 1950, is one of the several municipal hospital projects now under construction Others include the 300-bed Francis Delafield Hospital for cancer Manhattan, which will be affiliated with the Columbia-Presbyterian Medical Center, the 300-bed James Ewing Hospital for cancer, Manhattan, which will be affiliated with the Memorial Cancer Center, and the 2,000-bed Bird S Coler Chronic Disease Hospital and Home on Welfare Island.

Actual demolition ceremonies signaling the start of construction of the $32,744,000 building and development program of the New York University-Bellevue Medical Center were held on June 7 in New York City Construction of the Institute of Rehabilitation and Physical Medicine, first building to be started, is expected to get underway within a month, with completion scheduled by September 1950 The ceremonies opened with Mr Winthrop Rockefeller chairman of the Medical Center's Board of Trustees, giving the signal for wrecking crews to start demolition of the old buildings on the site. Among the speakers were Mayor William O'Dwyer and Dr Donald A. Covalt, clinical director of the Institute of Rehabilitation, representing Dr Howard A. Rusk, director of the Institute.

CORRESPONDENCE

To the Editor

The statement has been made rather frequently that Mr Bernard Baruch is in favor of compulsory health insurance

Accompanying this is a copy of a letter from Mr Baruch that refutes this statement This should be of interest to readers of our STATE JOURNAL in view of our stand in this matter

MADGE C L. MCGUINNESS, M.D
Chairman, Speakers' Bureau
Medical Society of the County of New York
51 East 87th Street
New York 28, New York
May 14, 1949

My dear Dr McGuinness

What I don't understand in all this talk about medicine is that everybody wants to go to the Government, even our own friends, to get aid Yet they expect that the Government is not going to call the tune as long as it pays the piper I certainly do not want to see what is generally known as socialized medicine As I said at the time of my address, I would oppose it with all my might I said, as you may remember, that the doctors have to get a move on themselves to meet the needs of the situation, and I stand on my speech I know that men like Dr Rawls are doing all they can to meet the needs of the situation without destroying the benefit the world derives from the great service the medical profession has always rendered

Yours very truly,
BERNARD M BARUCH

New York City
March 19, 1949

MEDICAL NEWS

Officers Elected to Head A.M.A

TWO members of the Medical Society of the State of New York were elected to office in the American Medical Association at the annual meeting held June 6 to 10 in Atlantic City, New Jersey Dr James R. Reuling, Bayside, treasurer of the State Society, was re-elected vice-speaker of the A M A. House of Delegates, and Dr Louis H Bauer, Hempstead, past-president of the State Society and now secretary of the World Medical Association, was re-elected to the A.M.A. Board of Trustees for a five-year term.

Dr Elmer L Henderson, of Louisville, Kentucky, was chosen president-elect, and will assume the office at the A.M.A annual meeting in San Francisco in June, 1950 Other officers chosen are Dr James Francis Norton, Jersey City, New Jersey, president of the Medical Society of New Jersey, vice-president, Dr George F Lull, Chicago, Illinois, secretary, Dr Josiah J Moore, Chicago, Illinois, treasurer, Dr Frank F Borzell, Philadelphia, Pennsylvania, speaker of the House of Delegates, and Dr F J L Blasingame, Wharton, Texas, trustee for a five-year term

Atlantic City, New Jersey, was announced as the convention city for 1951, and Chicago was selected as the meeting place for 1952 San Francisco, California, had previously been chosen as the 1950 site

A.M.A Sets Up Criteria for Medical Plans

AT ITS annual convention in Atlantic City, New Jersey, from June 6 to 10, the House of Delegates of the American Medical Association adopted a set of twenty suggested principles for lay-sponsored voluntary health plans, of which there are about eighty throughout the United States, with approximately one million subscribers

The principles are approved as suggestions to state and county medical societies, and these groups have the right to accept or reject the principles, to modify them, or ignore them

The twenty suggested principles for lay-sponsored voluntary health plans follow

1 The plan shall be nonprofit, pay no dividends to beneficiaries or others, all surplus earnings shall be devoted either to improving services, to making compensation of physicians and other staff members more adequate for their responsibilities and services, to purchasing facilities and equipment, to increasing the scope of benefits, or to building annual reserve funds. All income to the plan shall be devoted to services for beneficiaries.

2 The plan shall comply with the principles of medical ethics of the American Medical Association, which provide that it is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group, or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary, or compensation received to accrue to the lay body or individual employing him.

3 If incorporated, the plan shall be adequately financed and organized without capital stock.

4. The plan shall be operated under an autonomous administration or trust, with segregated funds, and shall be devoted exclusively to the provision of health service

5 Promotion, sales, organization, and administrative expense of the plan shall be kept at a minimum as judged by the accrediting body

6 The quality of medical service shall be maintained at the highest possible level. All participating physicians shall be doctors of medicine duly licensed to practice medicine in any state in which the plan operates Each physician engaged in the practice of a specialty shall be required to have adequate qualifications for that specialty The personnel and facilities of the plan shall be adequate to insure a high quality of medical care.

7 The plan shall provide all services as set forth in the agreement with the beneficiary, save if in the opinion of the medical staff, a professional service set forth is not available because of an emergency or because of the need for highly technical procedure, or for any other reason, then such service shall be otherwise provided by the plan.

8 The plan, in its agreement entered into with the beneficiary and which shall be distributed to each beneficiary, shall state clearly the services and benefits to be provided and the conditions under which they will be provided. All exclusions, limitations, waiting period, and deductible provision shall be clearly stated in the agreement with the beneficiary and in promotional and descriptive literature

9 The plan shall, in its agreement with the beneficiary, state clearly the amount of dues or subscription to be paid The amount of dues or subscription shall be adequate to provide for the benefits and services offered and to insure proper financing of the risks involved

10 No promotional material shall invite attention to the professional skill, qualifications, or attainments of the physicians participating in the plan

11 Participating physicians may be compensated in any manner not contrary to the principles of medical ethics of the American Medical Association relating to contract practices

12 Any duly licensed physician in the community who wishes to participate in the plan, who meets its professional and personnel standards, and who agrees to abide by its terms and the requirements of its beneficiaries, shall be admitted to the plan.

13 The names of all participating physicians of the plan shall be made available to the prospective beneficiary The beneficiary shall, within reasonable geographic and professional limitations, have free choice among participating physicians

14. There shall be no interference by the governing body with the medical staff in the practice of medicine The traditional and confidential relationship of the physician and patient shall be preserved.

15 Adequate provisions shall be made for effective participation of the medical staff in the

deliberations of the governing body It is recommended that the membership of the governing body include representatives of the medical profession

16 All services rendered by the participating physician, not included in the beneficiary's contract, shall be payable by the beneficiary to the participating physician on a fee for service basis

17 The method of operation of any hospital owned or under contract to the plan shall be in accordance with sound public policy

18 The plan shall provide for like rates, benefits, terms, and conditions for all persons in the same class

19 Investment of reserve funds shall be made only in securities deemed prudent for such purposes

20 Any plan desiring approval under these principles shall agree to such periodic reviews and to abide by such regulations as may be deemed necessary by an appropriate accrediting body of the American Medical Association in consultation with representatives of the sponsors of the plan

Exchange Fellowships in Cancer Research

BRITISH-American Exchange Fellowships in Cancer Research of the American Cancer Society, awarded by the Society upon recommendation of the Committee on Growth of the National Research Council are offered to citizens of the United States for advanced training and experience in Great Britain in specialized fields of investigation pertaining to the problem of cancer Similar fellowships are awarded by the British Empire Cancer Campaign to British scientists for study in the United States The Society and the Committee on Growth welcome the cooperation of universities and hospitals in making known these opportunities to suitable candidates

These fellowships are awarded by the American Cancer Society to provide specialized training for American investigators in Great Britain where opportunities exist for study in facets of research in malignant disease not widely available in this country

Fellowships are open to citizens of the United States who possess the degree of Doctor of Medicine, Doctor of Philosophy, or Doctor of Science They are intended for young men and women embarking upon a career in clinical medicine or basic research, and also for more mature candidates desiring to extend their fields of competence in these fields Applicants must be able to demonstrate that they have qualifications necessary to pursue investigation in the fundamental sciences or in clinical medicine

Applications should state the institution where the fellow plans to work in Great Britain, the individual under whom the fellow desires to work, what problem he intends to investigate, when he wishes to start

Fellowships will be awarded for a period of one year The annual stipend will be £1,000 ($4,020) An allowance of $600 is made for travel to the site of the fellowship in Great Britain

University staff appointment, with teaching duties agreeable to the fellow, is permitted, provided it carries no additional salary and provided it is acceptable to the Committee on Growth, the American Cancer Society, and the British Empire Cancer Campaign No other remunerative work will be permitted during the tenure of the fellowship

Fellowship appointments are subject to the condition that, once accepted, they will not be vacated or the place of work changed within the period of tenure without the consent of the Committee on Growth, the American Cancer Society, and the British Empire Cancer Campaign

Application forms for British-American Exchange Fellowships in Cancer Research may be procured from and submitted at any time to the executive secretary of the Committee on Growth, Division of Medical Sciences, National Research Council, 2101 Constitution Avenue, Washington 25, D C Favorable action by the Committee on Growth takes the form of a recommendation to the American Cancer Society, and is subject to approval by the Society Fellowships will be made effective at the convenience of the institution and the fellow

MEDICALLY SPEAKING—

Life Insurance Medical Research Fund—The Life Insurance Medical Research Fund has published its fourth annual report on heart disease and heart disease research, addressed to members of the medical profession and to life insurance presidents of the United States and Canada.

Representing 147 life insurance companies, the Fund was organized late in 1945 as the first major organization in North America to devote its full resources to heart disease research In its first four years it sponsored nearly two million dollars of university and hospital work, and last month its Board of Directors voted to contribute another $600,000 during 1949

A summary of the Fund's activities through 1948 in its annual report shows that, for 1949, $585,300 more has been allocated for 53 new and old projects, and $94,700 has been awarded 27 new fellows, to bring the total Fund support of heart disease research so far to $2 576,000

The Electron Microscope—The first formal college program to train scientists to use the electron microscope and to explore the uncharted areas opened by the instrument is being organized in the Department of Engineering Physics at Cornell University

The project was disclosed by Dean S C Hollister of the College of Engineering in an announcement of plans for the establishment of a major Electron Microscopy Laboratory at Cornell The laboratory is being supported by a grant from the Rockefeller Foundation.

The laboratory will provide training in the field of electron optics and electron microscopy both in the fifth year of the undergraduate curriculum and at the graduate level. It will also make possible *fundamental research in electron microscopy* which is expected to result in development of new and improved technics

Announces Examination—The U S Civil Service Commission has announced examinations for positions at St Elizabeth's Hospital, Washington, D C, including a rotating internship (salary—$2,200 first year, $2,400 second year), psychiatric resident ($2,400 to $4,100 a year), and surgical resident ($3,400 to $4,150 a year) Further information and application forms may be obtained at most first- and second-class post offices, from civil service regional offices, or from the U S Civil Service Commission, Washington 25, D C

Establish Air Force Medical Reserve—General Hoyt S Vandenberg, Chief of Staff, U S Air Force, announced recently that applications are being received for commissions in the newly created Air Force Medical Reserve Physicians, dentists, nurses, and other medical personnel who served with the Army Air Forces during the war may make application through the Air Adjutant General, U.S Air Force, in Washington.

Texaco Fellowship in Industrial Medicine—The University of Cincinnati announces the creation of a Texaco Fellowship in Industrial Medicine, through a grant made to the Institute of Industrial Health in the Graduate School of Arts and Sciences by the Texas Company This fellowship is being established in the University and the Institute, in connection with the training of physicians for practice in industrial medicine and hygiene.

The Texaco Fellowship will be awarded for a two-year period, to begin July 1, 1949, and will provide for the intramural period of training of the successful candidate. On the completion of the work of the fellowship within the University, an additional year will be spent in supervised practice in one or more industrial organizations Upon successful completion of the entire course of training the degree of Doctor of Industrial Medicine will be awarded by the University

Research Fellowships—The American College of Physicians announces that a limited number of Fellowships in Medicine will be available from July 1, 1950 to June 30, 1951 These Fellowships are designed to provide an opportunity for research training either in the basic medical sciences or in the application of these sciences to clinical investigation They are for the benefit of physicians who are in the early stages of their preparation for a teaching and investigative career in internal medicine Assurance must be provided that the applicant will be acceptable in the laboratory or clinic of his choice and that he will be provided with the facilities necessary for the proper pursuit of his work. The stipend will be from $2,200 to $3,200 Application forms will be supplied on request to the American College of Physicians, 4200 Pine Street, Philadelphia 4, Pennsylvania, and must be submitted in duplicate not later than October 1, 1949 Announcement of awards will be made in November, 1949

Fellowships for Latin-American Physicians—The American College of Physicians and the W K Kellogg Foundation, with the cooperation of the U S Department of State and of medical schools in the U S A, Canada, and Latin-American countries, will shortly inaugurate a program of postgraduate medical fellowships Outstanding young physicians will be nominated to the College and Foundation by local committees in the countries to the south, and those to whom fellowships are awarded will be brought to this country for a year or more of special training It is anticipated that the first fellows will begin their studies during the autumn of 1949

Eligibility requirements include citizenship in the country from which application is made and familiarity with its culture and economy, graduation from an acceptable medical school and completion thereafter of an internship of 12 months or more, ability to use the English language, and assurance of a subsequent teaching affiliation with a medical school in the native country Those needing some training in English will be assigned to a special course for the purpose in the United States

Designed to stimulate progress in the teaching of internal medicine and research, and to help the most promising young doctors of medicine in these countries to prepare for teaching and research careers in their native countries, the program also will serve to increase understanding among the American republics by serving as a medium for the exchange of knowledge and acquaintanceships

Fellowships in Exfoliative Cytology—The American Cancer Society announces a series of fellowships available in various laboratories, including grants to the institutions as well as to individuals In New York City there are six fellowships available at Cornell University Medical College, and one at the New York Post-Graduate Hospital Individual applicants for fellowships should apply directly to the institutions—Dr George N Papanicolaou, at Cornell, and Dr Locke L Mackenzie, at Post-Graduate.

Board Adopts Requirements—The American Board of Preventive Medicine and Public Health, which is sponsored by the American Medical Association, American Public Health Association, Association of Schools of Public Health, Southern Medical Association, and Canadian Public Health Association, has adopted requirements for certification that are in harmony with those of the various specialty boards previously set up general qualifications, such as satisfactory moral and ethical standing in the medical profession, adequate medical training and internship in an approved hospital, and licensure to practice medicine in the United States To be eligible for examination, applicants must also have had special training and experience in preventive medicine and public health for at least six

years after internship (special academic training, or its equivalent, and field training or residency of at least two years of field experience in general public health practice, including planned instruction, observation and active participation in a comprehensive, organized public health program), each person to whom a certificate is issued must limit his practice to the teaching or practice of public health as a specialty

The standards thus set up appear to guarantee that diplomates of the new board will be men of the highest caliber in their field

City Health Department Checks Bathing Waters—The New York City Department of Health announced that it is taking water samples at 95 points along the New York City waterfront and making analyses of the samples as part of its continuing study of the City's bathing beaches Last year the Health Department, acting on instructions of the Board of Health, placed each of the City's beaches in one of four classifications

Those classifications are Class A, Group 1, "safe waters", Class A, Group 2, approved but subject to possible later reclassification in the light of continuing observation, Class B, "polluted beach waters not recommended for bathing" but where bathing is not actually forbidden, and Class C, those waters where bathing has long been prohibited.

The three factors taken into account in classifying a beach are (1) "epidemiologic experience"—that is, whether use of the waters for bathing and swimming has or has not caused illness, (2) the general sanitary conditions of water at each beach, and (3) the bacterial content of the water as established by analysis of samples taken under varying conditions

Albany Medical College Class Holds Reunion—Twelve physicians whose combined service to medicine totals 612 years met in Albany on May 14 for the fifty-first annual reunion dinner of the Class of 1898 of Albany Medical College The twelve, with three others who were unable to attend the dinner, are the remaining members of the class of 64 medical students Presiding at the reunion was Dr Edgar A. Vander Veer of Albany, who was president of the graduating class and has served for many years as the class alumni head Attending the dinner were Dr James F Rooney, Albany, Dr Charles S Prest, Brooklyn, Dr Robert W Andrews, Poughkeepsie, Dr James M Cronk, Hyde Park, Dr Julian A Gaul, Roxbury, New Hampshire, Dr David John Jenkins, Scranton, Pennsylvania, Dr Earl Parsons Lasher, Newton, Connecticut, Dr Roy Latham Leak, West Hartford, Connecticut, Dr Charles G McMullen, Niskayuna, Dr Nishan O Pashayan and Dr William J Swart, both of Schenectady Unable to attend were Dr Willard O Carpenter, St Petersburg, Florida, Dr G Worden Crissey, Mechanicville, and Dr George B Stanwix, Yonkers

National Commission on Chronic Illness Formed—The groundwork for the first concentrated attack on all aspects of chronic illness was laid in Chicago recently with the creation of a national Commission on Chronic Illness

Formation of the commission climaxed a year's preparatory work by four national voluntary associations in the medical, public health, hospital, and welfare fields to carry out one of the major recommendations of the National Health Assembly in May, 1948 These are the American Hospital Association, the American Medical Association, the American Public Health Association, and the American Public Welfare Association.

Briefly, the goals are

(1) To modify the prevailing attitude of society that chronic illness is hopeless, to substitute for the prevailing overconcentration on the provision of institutional care a dynamic program designed to prevent chronic illness, to minimize its effects, and to restore its victims to a socially useful and economically productive place in the community

(2) To define the problems arising from chronic illness among all age groups, with full realization of its social as well as medical aspects

(3) To coordinate separate programs for specific diseases with a general program designed to meet more effectively the needs common to all chronically ill persons

(4) To clarify relationships among professional groups and agencies working in the field of chronic illness

(5) To stimulate adoption in every state and community of a well-rounded plan for prevention and control of chronic illness and for the care and rehabilitation of the chronically ill.

Organized as a nonprofit corporation under the laws of Illinois, the Commission on Chronic Illness is appealing to foundations, professional societies, and other voluntary national organizations for funds It already has received $20,000 from the American Medical Association and $2,500 each from the National Society for Crippled Children and Adults and the New York Foundation.

MEETINGS

Past

American College of Chest Physicians, New York State Chapter

The New York State Chapter of the American College of Chest Physicians held its annual meeting in Buffalo on May 5 The following officers were elected Dr Joseph J Witt, Utica, first vice-president, Dr David Ulmar, New York City, second vice-president, and Dr Donald R McKay, Buffalo, secretary-treasurer

New York Council of Surgeons

The New York Council of Surgeons presented a lecture by Dr Daniel Burman, assistant visiting ophthalmologist at Fordham Hospital, New York

City, at a meeting held May 31 at the Parkchester General Hospital, the Bronx Dr Burman's subject was "The Diagnosis and Treatment of Diseases of the Eyelids and Related Structures"

Rudolf Virchow Medical Society in the City of New York

In commemoration of the two hundredth anniversary of the birth of Goethe, the Rudolf Virchow Medical Society in the City of New York sponsored a meeting at the New York Academy of Medicine on June 6 Scientific papers were presented by Dr Walter Fraenkel, Dr Bruno Kisch, and Dr Otto Meyerhoff An exhibit, "Goethe as a Scientist," arranged by the Rudolf Virchow Medical Society in collaboration with the Rare Books Department of the New York Academy of Medicine, was displayed at the meeting and throughout the month of June

Future

First International Congress of Biochemistry

The First International Congress of Biochemistry will be held at Cambridge University, Cambridge, England, from August 19 to 25, 1949 Twelve sections will be held, including "Animal Nutrition and General Metabolism," "Microbiologic Chemistry," "Enzymes and Tissue Metabolism," "Proteins," "Clinical Biochemistry," "Structure and Synthesis of Biologically Important Substances," "Cytochemistry," "Biologic Pigments Oxygen Carriers and Oxidizing Catalysts," "Hormones and Steroids," "Chemotherapy and Immunochemistry," "Plant Biochemistry," and "Industrial Fermentations"

American Congress of Physical Medicine

The American Congress of Physical Medicine will holds its twenty-seventh annual scientific and clinical session September 6 through 10, 1949, at the Netherland-Plaza Hotel, Cincinnati, Ohio All sessions will be open to members of the medical profession in good standing with the American Medical Association. Further information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois

Medical Society of the State of Pennsylvania

The ninety-ninth annual meeting of the Medical Society of the State of Pennsylvania will be held September 26 through 29, 1949, at the Hotel William Penn, Pittsburgh, Pennsylvania.

American Public Health Association

The seventy-seventh annual meeting of the American Public Health Association will be held in New York City from October 24 to 28, 1949 The Hotels Statler and New Yorker will be joint headquarters Each of the thirteen sections of the Association is planning extensive scientific sessions in the field of its special interest The sections are dental health, engineering, epidemiology, food and nutrition, health officers, industrial hygiene, laboratory, maternal and child health, medical care, public health education, public health nursing, school health, and statistics

At the two evening general sessions, the Lasker Awards for 1949 will be presented, the Sedgwick Memorial Medal will be awarded, and the address of the president, Dr Charles F Wilinsky, director of Beth Israel Hospital, Boston, Massachusetts, will be read

A local committee, representative of health, medical, and civic groups in New York City, is being formed under the chairmanship of Dr Harry S Mustard, commissioner of health. Further details about the program may be obtained from Dr Reginald M Atwater, executive secretary, American Public Health Association, 1790 Broadway, New York City

American Association of Blood Banks

The second annual meeting of the American Association of Blood Banks will convene in Seattle, Washington, at the Olympic Hotel, on November 3, 4, and 5, 1949 Dr Ralph G Stillman, New York City, is president of the Association, and Dr Ernest Witebsky, of Buffalo, is vice-president

Further information may be obtained from the office of the Secretary, 3301 Junius Street, Dallas 1, Texas

National Society for Crippled Children and Adults

The annual convention of the National Society for Crippled Children and Adults will be held November 7, 8, and 9 at the Commodore Hotel, New York City Prominent authorities working in the field of the handicapped will present latest developments marking twenty-eight years of service for the Society Delegates from 2,000 state and local affiliates of the Society will discuss research, rehabilitation, training, and treatment for the handicapped

International College of Surgeons, United States Chapter

The thirteenth assembly of the United States Chapter, International College of Surgeons, will be held in Atlantic City, New Jersey, November 8, 9, 10, and 11, 1949, at the Chalfonte-Haddon Hall

PERSONALITIES

Honored

Dr Walter T Dannreuther, New York City, who received the Long Island College of Medicine Alumni Medallion for "Distinguished Service to American Medicine" at ceremonies held June 9 Dr Rehmi Denton, assistant resident physician in surgery at Albany Hospital, who has been named a research fellow of the American Heart Association and will work at Albany Medical College on a study of valvular heart conditions Dr W Yerby Jones, Buffalo, who received the Buffalo Urban League

Award for "Occupational and Professional Achievement" at the annual dinner of the group held recently in Buffalo

Dr John J Masterson, Brooklyn, president of the Medical Society of the State of New York, at a dinner on April 28 at the St George Hotel, Brooklyn, attended by three hundred friends and associates, at which tributes were paid by a number of speakers to the guest of honor for his long service to the medical profession of Brooklyn and in recognition of his election as president of the Medical Society of the State of New York Dr John J O'Connor, Jr, Island Trees, Long Island, and Dr Charles Mindell Plotz, Brooklyn, graduates of the Long Island College of Medicine, who were awarded scholarships by the New York Academy of Medicine, under the Bowen-Brooks Memorial Fund, to enable them to continue their postgraduate work. The Bowen-Brooks grants-in-aid are made only to young doctors who are graduates of New York City medical schools, and who have served or are serving on the house staffs of hospitals in the metropolitan area Dr O'Connor will use his scholarship to continue further special training at Kings County Hospital, and Dr Plotz will use his award to study arthritis for one year at Presbyterian Hospital

At the 1949 convention of the American Psychiatric Association, Dr Benjamin Pasamanick, in charge of the Children's Service of the Division of Psychiatry, Kings County Hospital, Brooklyn, and associate in psychiatry at the Long Island College of Medicine, received the first Lester N Hofheimer Research Award of $1,500, given to the psychiatrist under forty who has published the best research in the preceding three years Dr Emery A. Rovenstine, chairman of the department of anesthesiology, New York University-Bellevue Medical Center, who received the honorary degree of Doctor of Science at the 111th commencement ceremonies held June 5 at his alma mater, Wabash College, Crawfordsville, Indiana

Appointed

Dr Robert Boggs, as dean of the New York University Post-Graduate Medical School, effective July 1 Dr Boggs will administer the expanded program of postgraduate medical education made possible by the recent grant of over $8,000,000 to the Medical Center by the Samuel H Kress Foundation

Dr Geoffrey W Rake as medical director and Dr Asger F Langlykke as director of the Research and Development Laboratories of E R Squibb and Sons Dr Thomas R Noonan, assistant professor and head of the radiation physiology section, department of radiation biology, Atomic Energy Project, University of Rochester, to the staff of the Upjohn Company Medical Division

Elected

Dr Hollis E Clow, White Plains, as president of the American Geriatrics Society, and Dr Harold W Lovell, New York City, first vice-president as officers of the New York University College of Medicine Alumni Association—Dr Sydney Weston, president-elect, Dr Walter Levy, vice-president, Dr Richard M Hyman, secretary, and Dr Harold Brandaleone, treasurer Dr Henry M Scheer, New York City, former president of the Alumni Association of the New York University College of Medicine, as vice-president of the New York University Alumni Federation

Speakers

Dr Tibor de Cholnoky, on "Surgical Treatment of Malignant Tumors of the Face," by invitation at the Curie Institute, Paris, France, on June 22 Dr Michael Deddish, of the surgical staff of Memorial Hospital, New York City, and Dr R A. McTamaney, Newburgh, at a cancer forum held April 27 in Middletown, under the sponsorship of the Horton Hospital Auxiliary Dr Murray H Gardner, Watertown, at a meeting of medical representatives from chapters of the American Red Cross held in Syracuse, May 12, on the monthly needs for blood and plasma of hospital patients in Jefferson County and the present status of blood banks in the area.

Dr Marcus D Kogel, New York City commissioner of hospitals, on May 26 at the annual meeting of the Conference Group on Welfare of the Aged of the Welfare Council of New York City Dr Horace Miller, Utica, on "The Responsibility of the Osteopathic Physician to the Community" at a meeting of the Central New York Osteopathic Society held in Syracuse Dr George T Pack, New York City, lectures on "The Surgery of Gastric Cancer," "Endocrinology of Neoplastic Diseases," and "The Extension of Radical Surgery in the Treatment of Cancer," at the second cancer symposium sponsored by the University of Utah College of Medicine and the Bureau of Cancer Control of the State Department of Health held in Salt Lake City, Utah, April 26 and 27 also a series of lectures on neoplastic diseases and the conducting of two tumor clinics on the islands of Hawaii, Maui, Kauai, and Oahu, under the auspices of the Cancer Society of Hawaii and the Hawaii Territorial Medical Association.

Dr Cornelius P Rhoads, director of Memorial Hospital, New York City, on "Frontiers of Cancer Research" at a meeting of the Faculty Science Club of Hunter College, New York City, on May 9 Dr Helen Thompson, assistant professor of psychology at New York University-Bellevue Post-Graduate Medical School, on "Retarded Children as Individuals" at a meeting of the Association for the Help of Retarded Children held May 5 in New York City Dr William Trevor, New York City, in a debate on the question of "Socialized Medicine" before the East Side Branch of the Americans for Democratic Action on May 10, and on the same subject at a dinner meeting of the Whitestone Kiwanis Club on May 17

New Offices

Dr Nicholas J Czukor, formerly of Elizabeth, New Jersey, general practice in West Haverstraw Dr Reginald C Farrow, formerly of Syracuse, practice of surgery in Ithaca in association with Dr H Bruner Sutton, Dr John W Hirshfeld, and Dr James C Allanson Dr James Gray, formerly of Springville, general practice in Friendship Dr Joshua Kern, New York City, general practice in Fultonville Dr Theodore Perl, Binghamton, veteran of three years service in the Army Medical Corps with the 34th Infantry Division, practice of radiology in Syracuse

Dr Joseph Phelps, Deposit, veteran of four years service with the Army Medical Corps, three of which were in combat duty overseas, general practice in Edmeston Dr De Land Towner, general practice in Middletown

WOMAN'S AUXILIARY

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

Annual Convention Held in Buffalo

THE thirteenth annual convention of the Woman's Auxiliary to the Medical Society of the State of New York was held May 1 to 4 at the Hotel Statler, Buffalo, in conjunction with the 143rd annual convention of the Medical Society of the State of New York Mrs Edgar M Neptune, of Syracuse, presided, and there were 267 delegates, alternates, and guests registered at the convention

The program included sessions of the House of Delegates, meetings of the executive board, a county presidents' conference, and several social functions, including a supper party, a cocktail party, a luncheon, and a tea. Members of the Erie County Auxiliary were hostesses to the other auxiliaries, with Mrs Clarence J Durshordwe, Buffalo, as chairman of the convention committee

Mrs William J Lavelle, of Astoria, Long Island, former councilor for the Second District and a past-president of the Queens County Auxiliary, was inducted into office as president for the coming year Chosen as president-elect, to take office at the annual convention in 1950, was Mrs Hugh Henry, of Germantown, of the Columbia County Auxiliary

Other officers are Mrs Herman W Galster, Scotia, Schenectady County Auxiliary, first vice-president, Mrs Albert Vander Veer 2nd, Albany, Albany County Auxiliary, second vice-president, Mrs Thomas M d'Angelo, Flushing, Queens County Auxiliary, recording secretary, Mrs Arthur F Holding, Albany, Albany County Auxiliary, treasurer, and Mrs A Braunstein, Astoria, Queens County Auxiliary, *corresponding secretary*

Directors are for three years—Mrs Edgar M Neptune, Syracuse, Onondaga County Auxiliary, and Mrs Thomas E Bullard, Schuylerville, Saratoga County Auxiliary, for two years—Mrs Harry F Pohlmann, Middletown, Orange County Auxiliary, and Mrs Bradford F Golly, Rome, Oneida County Auxiliary, and for one year—Mrs Alfred L Madden, Albany, Albany County Auxiliary, and Mrs Byron D St John, Port Washington, Nassau County Auxiliary

District Councilors include District 1—Mrs Emerson Noll, Port Jervis, Orange County Auxiliary, District 2—Mrs Clifton Louis Dance, Brooklyn, Kings County Auxiliary, District 3—Mrs Ra Persons, Cairo, Greene County Auxiliary, District 4—Mrs E MacD Stanton, Duanesburg, Schenectady County Auxiliary, District 5—Mrs Philip I Turner, Utica, Oneida County Auxiliary, District 6—Mrs Manuel M Monserrate, Binghamton Broome County Auxiliary, District 7—Mrs Charle Miller, Rochester, Monroe County Auxiliary, an District 8—Mrs Arthur L Bennett, Buffalo, Erie County Auxiliary

Committee chairmen are archives—Mrs William Bartels, Garden City, Nassau County Auxiliary convention—Mrs Michael M Schultz, Hollis Queens County Auxiliary, finance—Mrs John J Rainey, Troy, Rensselaer County Auxiliary, historian—Mrs John J Buettner, Syracuse, Onondaga County Auxiliary, *Hygeia*—Mrs Edwin A Griffin Brooklyn, Kings County Auxiliary, legislation—Mrs John Horner, Albany, Albany County Auxiliary, national bulletin—Mrs Herbert Ensworth Ithaca, Tompkins County Auxiliary, organization —Mrs Albert Vander Veer 2nd, Albany, Albany County Auxiliary, parliamentarian—Mrs John L Mason, Pulaski, Oswego County Auxiliary Physicians' Home—Mrs George P Bergman Greenport, Suffolk County Auxiliary, *Distaff*—Mrs Adolph H Emerson, Brooklyn, Kings County Auxiliary, press and publicity—Mrs John L Neubert, Roslyn, Nassau County Auxiliary

Also printing and supplies—Mrs Walter A Schmitz, Middletown, Orange County Auxiliary program—Mrs Harold B Johnson, Buffalo, Erie County Auxiliary, public relations—Mrs Harry I Norton, Rochester, Monroe County Auxiliary, and revisions—Mrs Gerald Cooney, Syracuse, Onondaga County Auxiliary Special committee chairmen are board meetings—Mrs William G Richtmyer, Albany, Albany County Auxiliary, and clippings—Mrs Thomas E Bullard, Schuylerville, Saratoga County Auxiliary

State Medical Society Head Addresses Auxiliary

AT THE Monday afternoon session of the annual convention of the Woman's Auxiliary, May 2, 1949, in Buffalo, Dr Leo F Simpson of Rochester, president of the Medical Society of the State of New York, addressed the delegates and guests

The text of Dr Simpson's address follows

"Madam President, honored guests, and members of the Woman's Auxiliary of the State of New York

"I have been awaiting this opportunity to come before you to express my appreciation of the splendid work you have done and are doing for the Medical Society of the State of New York You have been busy at a multitude of tasks, helping our Society, helping your husbands, and acting as a cement that binds us all together Dr Beekman your staunch champion, never ceases to laud you and your efforts, and recently, at a meeting of the Council, he had a resolution enacted complimenting you on the preparation of the outlines entitled, 'Ladder to Auxiliary Success,' and 'What Every Doctor's Wife Should Know' Your paper, *The Distaff*, has also been increasingly informative and a pleasure to read

"American medicine, as you know, faces a crisis—the threatened passage of a National Health and Compulsory Insurance Act There is little I can say that will add to your knowledge of what the medical profession is doing to meet this threat

You all are familiar with the campaign we are conducting under the leadership of the American Medical Association This campaign represents the American profession's sincerest efforts to inform and alert the American public to the danger of such schemes to our patients, to themselves

"Recently, as you may know, we have had a very interesting experience in New York. Professor Reager, of Rutgers College, an instructor in speech, spent a couple of days with us giving instruction to nearly 175 doctors These doctors were all volunteer speakers for the cause, and I am sure when evening came we had 175 new missionaries, more eager and more competent because of that session If you can possibly use him, I commend him to you.

"I do not pretend to be either a sociologist or an economist Whatever special knowledge I possess lies in the field of medicine, and like most doctors I am only prepared to discuss medicine and its allied subjects With the passage of the years, however, I have become convinced that the doctor of today must supplement his knowledge of medicine with a knowledge of the social and economic problems which have arisen as medicine has progressed, and, incidentally, so must his wife

"The economic environment of our people is constantly changing, and is full of stresses The happiness of our people, the security of the American home must appeal to you, not only as doctors' wives, but as homemakers and mothers We know how prone we all are to mortgage our futures to have the material comforts that all consider so essential We know also the devastating economic effect of serious illness when it occurs in such homes The work of your organization in preaching, in and out of season, the value of voluntary hospital insurance, of voluntary medical care plans, has been of tremendous value These plans not only furnish life-saving protection at small cost, but also recruit an army of people who are with us in our fight against compulsory health insurance

"This is neither the time nor the place for me to reiterate the arguments against compulsory health insurance, nor to defend the present system of furnishing medical care to the American people, to speak of the stultifying influence of the one and the ever-expanding possibilities of the other You are already converted What the Medical Society of the State of New York needs is to make you into missionaries To do this, when you speak on this, and, in fact, when you speak on other subjects so necessary for the welfare of the medical profession, you must be prepared You will deal with audiences whose knowledge, whose interest, even, in your subject will be limited You cannot, however, underestimate their intelligence, their ability to ask searching questions You also have to be prepared to answer the occasional hostile person who may be present As Professor Reager would say, you must have an intimate knowledge of the material needed for a fifty-five minute talk in order to give one of five minutes

"If you are speaking against compulsory health insurance, in addition to your collateral reading the Public Relations Committee of the State Society can furnish you speakers' notes on cards which are packed full of information Perhaps you already have them.

"If you are speaking on voluntary medical care insurance plans, Mr Farrell of our bureau can give you invaluable material, and so with your other missionary efforts

"Zeal, enthusiasm, and determination will get you over the first hurdle and carry you ever onward These qualities are engendered by constant study, for before you can preach successfully you must know thoroughly, and believe in your heart

"These are platitudes, I know, but these platitudes I leave with you as my message today

"Our Auxiliary, composed of you gracious and important ladies, will continue to grow in numbers, and be ever alert and well informed You are our better half when we are with you and much more than that when we are not

"In conclusion, I would like to express not only my own appreciation, but also that of every member of the Medical Society of the State of New York for the wonderful work you have done during this past year

'I express this not only to Mrs Neptune, your president, to every state and county officer, but to each individual member of the auxiliary To Mrs Lavelle, your president-elect, I join with Dr Masterson in saying, 'welcome'"

COUNTY NEWS

Allegany County

The Allegany County Auxiliary met on May 12 in Belmont for a joint dinner meeting with the Allegany County Medical Society Annual election of officers followed the dinner, with the following results Mrs E Stanley Webster, president, Mrs Raymond O Hitchcock, vice-president, Mrs Philips J Morrison, secretary, and Mrs Edward J Briggs, treasurer Mrs Hitchcock and Mrs Irwin Felsen reported on their attendance at the State Auxiliary convention in Buffalo, May 2 to 4

Clinton County

The quarterly meeting of the Clinton County Auxiliary was held April 19 at the Nurses' Home of the Champlain Valley Hospital, with Mrs E W Sartwell presiding Mrs Sartwell, Mrs Andrew Speare, and Mrs Franklin Atwater were chosen delegates to the State convention

Erie County

At the monthly luncheon of the Erie County Auxiliary, held May 24, Mrs Ralph Upson, retiring president, presented the gavel to Mrs Clarence J Durshordwe, and installation of the other officers was held

Mrs Durshordwe appointed committee chairmen, as follows Mrs John A. Post, membership, Mrs J Frederick Painton, program, Mrs Elmer H. Stumpf, *Hygeia*, Mrs Hyatt Regester, public relations, Mrs Stuart L Vaughan, legislation, Mrs Roland B Carr, house and hospitality, Mrs Baxter Brown, press and publicity, Mrs George C Brady, historian, Mrs John R Hall national bulletin

Mrs Bernard Stell, telephone, Mrs Norman F Graeser, project, and Mrs Victor Cohen, finance

Reports were made on the year's activities, and the project committee reported that all the girls using Erie's scholarship loans have continued their high scholastic records By September, Erie County Auxiliary will have awarded eight loan scholarships, and two of the recipients will graduate in September

Madison County

Mrs Eugene W Carpenter was re-elected president of the Madison County Auxiliary at the annual meeting in April Other officers chosen are Mrs Lee S Preston and Mrs Charles Earl, vice-presidents, Mrs Felix Ottaviano, secretary, and Mrs Wallace Nicdorf, treasurer

At the May meeting, a luncheon was held at the Licklaen House, Cazenovia Mrs Carpenter presided, and guests of honor were Mrs John Mason, Pulaski, retiring Fifth District Councilor, and the new Councilor, Mrs Philip Turner, of Utica Mrs Bruce Storrs, Morrisville, was chairman of the arrangements committee for the luncheon

Nassau County

Mrs Clymer A Long, of Freeport, was installed as president of the Nassau County Auxiliary at the annual meeting held May 31 in Garden City Mrs John L Neubert, of Roslyn, is the retiring president

Other officers are Mrs Carl N Wechtel, Woodmere, president-elect, Mrs P A Robin, of Hempstead, and Mrs George Christmann, of Valley Stream, vice-presidents, Mrs Howard F Munro, Freeport, corresponding secretary, Mrs Joseph Kinnaman, Garden City, recording secretary, and Mrs Carl Freese, Garden City, treasurer

The annual bridge party of the Nassau County Auxiliary, a benefit for the welfare fund, was held June 23 at the Rockville Country Club

Onondaga County

At the annual spring luncheon of the Onondaga County Auxiliary, held May 17 in Syracuse, the following officers were elected for the coming year Mrs Neil M Paul, president, Mrs A Carl Hofmann, first vice-president, Mrs Foster C Rulison, second vice-president, Mrs Uri Doolittle, Jr, recording secretary, Mrs Herman Dick, corresponding secretary, Mrs Herman Harding, assistant corresponding secretary, Mrs Jerome Flatwo, treasurer, and Mrs Clifford Sorgues, assistant treasurer

Chairman for the luncheon was Mrs Joseph M Thornton, assisted by Mrs William J Ryan and Mrs Richard Vosburgh

At the April 12 meeting of the group, Mrs J Campbell Butler, executive director of the Central New York Medical Plan, Inc, discussed problems connected with the plan Mrs J Edward Kelly was hostess

Richmond County

Mrs John J Goller was installed as president of the Richmond County Auxiliary at a luncheon held June 14 at the Villa Restaurant, Stapleton, succeeding Mrs Joseph F Worthen Other officers chosen are Mrs Leif G Jensen, president-elect, Mrs Lawrence E Viola, first vice-president, Mrs George E McCormack, second vice-president, Mrs Joseph M Malin, treasurer, Mrs. Joseph H Diamond, recording secretary, Mrs Henry W Litvak, corresponding secretary, and Mrs Vincent G Smith, historian

Schenectady County

New officers of the Schenectady County Auxiliary took office in June They are Mrs Milton Gipstein, president, Mrs Michael Slovak, president-elect, Mrs Kencil Mitton, first vice-president, Mrs Roland Faulkner, second vice-president, Mrs Donald McElroy, recording secretary, Mrs Thomas Adinolfi, corresponding secretary, Mrs Raymond Byron, assistant corresponding secretary, Mrs George Reich, treasurer, Mrs Herbert J Wright, Jr, assistant treasurer, and Mrs Donald Binder, historian

Seneca County

At the annual meeting of the Seneca County Auxiliary, held in Seneca Falls, officers were elected for the coming year They are Mrs Hyman Abrahamer, president, Mrs Arthur Baldwin, vice-president, Mrs Roy Wallace, secretary, and Mrs Saul Towers, treasurer

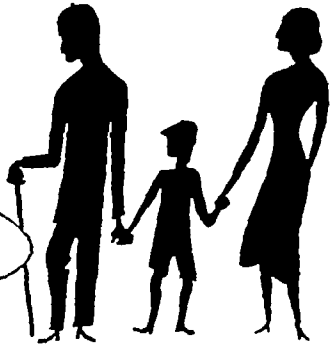
Westchester County

Mrs William Dick Sporborg, past-president of the Westchester, New York State, and National Federation of Women's Clubs, was guest speaker at the luncheon meeting of the Westchester County Auxiliary held May 23 in White Plains. Mrs Sporborg's topic was "Milestones on the Path to Peace"

Election of officers for the coming year was held at the meeting, with the following results Mrs Reginald A Higgons, Port Chester, president, Mrs Isadore Zadek, Mount Vernon, president-elect, Mrs Waring Willis, Bronxville, vice-president, Mrs Romeo Roberto, Yonkers, treasurer, Mrs Curtis T Prout, White Plains, recording secretary, and Mrs Donald W Richie, Croton Falls, corresponding secretary Mrs Laurance D Redway, Ossining, is the retiring president

A resolution opposing compulsory health insurance was unanimously approved by the Auxiliary, and copies were sent to the President of the United States, the New York State Senators, and the Westchester County Representatives

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new formula
new effectiveness





MYTINIC, Bristol's new and improved oral hematinic, retains the many advantages of VYTINIC, its forerunner in the field which has won such widespread acceptance. But additionally, the new formula includes almost double its previous iron content—in conformity with latest authoritative opinion—to insure optimum clinical response in iron-deficiency states.

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Thiamine Hydrochloride (Vitamin B_1)	10 mg.
Riboflavin (Vitamin B_2)	4 mg.
Niacinamide	100 mg.
Liver extract (derived from 20 Gm. of fresh liver)	1 Gm.

Dosage: Adults—one tablespoonful, t.i.d., with or immediately following meals, children—in proportion to age

Bottles of 12 fl. oz. and 1 gallon



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ANNOUNCEMENTS

The following notices have been received from Dr Jacob L Lochner, Jr, secretary of the New York State Board of Medical Examiners, State Education Department, University of the State of New York

The Board of Regents, at a meeting held January 28, 1949,

Voted, That the action of the Board of Regents taken on September 17, 1948, in the matter of the application for the revocation of the medical license heretofore granted to Louis Klein, Hartford, Connecticut, be and the same hereby is amended and that medical license No 19485, issued under date of June 25, 1925, to Louis Klein, permitting him to practice medicine in the State of New York, be and the same hereby is revoked, annulled and canceled, and that his registration or registrations as a physician, wherever they may appear, be annulled and canceled of record, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to carry out the terms of this vote

Dr Louis Klein was served by registered mail with the order of the Commissioner on March 21, 1949, at 820 Pacoma Avenue, San Fernando, California

Voted, That, pursuant to the provisions of subdivision 1 of section 6514 of the Education Law, medical license No 19600 issued under date of June 25, 1925, to Samuel C Reiss, Brooklyn, permitting him to practice medicine in the State of New York, be revoked, annulled and canceled, and that his registration or registrations as a physician, wherever they may appear, be ordered annulled and canceled of record, and that the Commissioner of Education be empowered and directed to execute for and on behalf of the Board of Regents all orders necessary to carry out the terms of this vote

Samuel C Reiss was registered from 501 East 21st Street, Brooklyn, for 1947–1948 The order of revocation was served on Dr Reiss on February 14, 1949

Voted, That, pursuant to the provisions of subdivision 1 of section 6514 of the Education Law, medical license No 42260 issued under date of April 8, 1944, to Paul Singer, New York City, permitting him to practice medicine in the State of New York, be revoked, annulled and canceled, and that his registration or registrations as a physician, wherever they may appear, be ordered annulled and canceled of record, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to carry out the terms of this vote

Paul Singer was registered for the year 1947–1948 from 944 Park Avenue, New York City The order of revocation became effective as of February 23, 1949

Voted, That, the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Ferdinand Lustig, New York City, be accepted and sustained, that, in compliance with the recommendation of said committee medical license No 36764, issued under date of August 30, 1939, to said Ferdinand Lustig, permitting him to practice medicine in the State of New York, and his registration or registrations as a physician, wherever they may appear, be suspended for a period of one year from the date of service of the order effecting such suspension, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to accept the determination of said Committee on Grievances and to carry out the terms of this vote

Ferdinand Lustig was registered from Seventy-First Street and Broadway, New York City, for 1947–1948 The order of suspension was served on Dr Lustig on February 11, 1949

The Board of Regents, at a meeting held March 25, 1949,

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Hyman Cohen, New York City, be accepted and sustained, that, in compliance with the recommendation of said committee, said Hyman Cohen be censured and reprimanded, that said Hyman Cohen be ordered to appear for such censure and reprimand before the Board of Regents at a time and place to be determined by the Commissioner of Education, notice of which shall be given to said Hyman Cohen by said Commissioner, and that the Commissioner of Education be empowered and directed to execute for and on behalf of the Board of Regents all orders necessary to carry out the terms of this vote

Dr Hyman Cohen is registered with the Department for 1949–1950 from 1150 Park Avenue, New York City. Dr Cohen appeared for censure and reprimand before the Board of Regents on April 22, 1949

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Paul V Conboy, Brooklyn, be accepted and sustained, that, in compliance with the recommendation of said committee, medical license No 30158, issued under date of January 31, 1935, to Paul V Conboy, permitting him to practice medicine in the State of New York, be and the same hereby is revoked, annulled and canceled, and that his registration or registrations as a physician, wherever they may appear, be annulled and canceled of record.

Dr Paul V Conboy was registered with the Department for 1949–1950 from 842 Park Place, Brook-

[Continued on page 1596]



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An *increased dose* of chemically standardized, *physiologically active* veratrum viride distinguishes the new RAY-TROTE IMPROVED CAPSULES by *Raymer* Three effective vasodilators—nitroglycerin, sodium nitrite, and veratrum viride—are combined in the capsule A mildly sedative dose of phenobarbital in the formula helps to maintain lowered blood pressure levels Based on a formula used by physicians for nearly a quarter of a century now made even more effective Prescribe it in your next case of hypertension

Formula: Phenobarbital ¼ grain Sodium Nitrite ½ grain Nitroglycerin 1/250 grain; Potassium Nitrate 1 grain with equivalent of Veratrum Viride Tincture (containing 0 1% alkaloids) 4 minims; Crataegus Fluidextract 1 minim

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(Continued from page 1594)

lyn The order was served on Dr Conboy on May 3, 1949, and his medical license therefore stands revoked as of that date

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Dunham Carroll Jones, Brooklyn, be accepted and sustained, that, in compliance with the recommendation of said committee, said Dunham Carroll Jones be ordered to appear for such censure and reprimand before the Board of Regents at a time and place to be determined by the Commissioner of Education, notice of which shall be given to said Dunham Carroll Jones by said Commissioner, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to carry out the terms of this vote

Dr Dunham Carroll Jones is registered with the Department for 1949–1950 from 2939 Quentin Road, Brooklyn Dr Jones appeared for censure and reprimand before the Board of Regents on April 22, 1949

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to John S Lanese, New Rochelle, be accepted and sustained, that, in compliance with the recommendation of said committee, said John S Lanese be censured and reprimanded, that said John S Lanese be ordered to appear for such censure and reprimand before the Board of Regents at a time and place to be determined by the Commissioner of Education, notice of which shall be given to said John S Lanese by said Commissioner, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to carry out the terms of this vote

Dr John S Lanese is registered with the Department for 1949–1950 from 137 Center Avenue, New Rochelle Dr Lanese appeared for censure and reprimand before the Board of Regents on April 22, 1949

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Samuel J Pashley, Hudson Falls, be accepted and sustained, that, in compliance with the recommendation of said committee medical license No 22877, issued under date of June 28, 1928, to said Samuel J Pashley, permitting him to practice medicine in the State of New York, be revoked, annulled and canceled, and that his registration or registrations as a physician, wherever they may appear, be ordered annulled and canceled of record, and that the Commissioner of Education be empowered and directed to execute, for and on behalf of the Board of Regents, all orders necessary to accept the determination of said Committee on Grievances and to carry out the terms of this vote.

Dr Samuel J Pashley was registered with the Department for 1949–1950 from 33 Catherine Street, Hudson Falls The order of the Commissioner was served on Dr Pashley on April 14, 1949, and his medical license therefore stands revoked as of that date

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to Hermann Leslie Wenger, New York City, be accepted and sustained, that, in compliance with the recommendation of said committee, medical license No 17376, issued under date of September 28, 1922, to said Hermann Leslie Wenger, permitting him to practice medicine in the State of New York, and his registration or registrations as a physician, wherever they may appear, be suspended for a period of six months from the date of service of the order effecting such suspension, and that the Commissioner of Education be empowered and directed to execute for and on behalf of the Board of Regents all orders necessary to accept the determination of said Committee on Grievances and to carry out the terms of this vote

Dr Hermann Leslie Wenger was registered with the Department for 1949–1950 from 44 Gramercy Park, New York City The order of the Commissioner was served on Dr Wenger on April 18, 1949, and his medical license therefore stands suspended as of that date

The Board of Regents, at a meeting held May 20, 1949,

Voted, That the determination of the Medical Committee on Grievances in the matter of the application for the revocation of the medical license heretofore granted to George C von Borstel, Scotia, be accepted and sustained, that, in compliance with the recommendation of said committee, said George C von Borstel be censured and reprimanded, that said George C von Borstel be ordered to appear for such censure and reprimand before the Board of Regents at a time and place to be determined by the Commissioner of Education, notice of which shall be given to said George C von Borstel by said Commissioner, and that the Commissioner of Education be empowered and directed to execute for and on behalf of the Board of Regents, all orders necessary to carry out the terms of this vote

Dr von Borstel is registered for 1949–1950 from 101 Vley Road, Scotia The order was served on Dr von Borstel on June 2, 1949

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BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue, Brooklyn N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification Selection for review will be based on merit and interest to our readers.

REVIEWED

Diseases of Children Edited by Donald Paterson, M D, and Alan Moncrieff, M D Fourth edition (First edition edited by Sir A. E. Garrod, D M, Frederick E Batten, M D, and Hugh Thursfield, D M) Volume I, with contributions by twenty-nine contributors Octavo of 771 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $9 00

This first volume which brings up to date the excellent and popular *Diseases of Children* by Garrod, Batten, Thursfield, and Paterson, is most welcome In much of its writing, particularly the material which deals with philosophic matters and clinical discussions, it is as charming and interesting as ever, therewith furnishing a pleasant supplement for those who wish to read pediatrics presented from the British point of view

An interesting transition has occurred in that certain American authors have written articles in this excellent text Thereby a quite different approach to certain scientific problems is offered We Americans like to believe that this is mutually beneficial

The section on infant feeding and diet will find less acceptance among American pediatricians than the other material in the book.

The appearance and setup of the book is excellent, as heretofore C A. Weyauller

A Textbook of Dietetics. By L. S P Davidson, M D, and Ian A Anderson, M B (Aberd) With Diet Sheets constructed by Miss Mary E Thomson, S R.N Second edition Octavo of 517 pages, illustrated New York, Paul B Hoeber, 1947 Cloth, $6 00

This is an excellent book on dietetics both from a theoretic and practical approach. It covers, in five parts, much of the present-day British food economy, the physiology of nutrition generally, as well as details about all vitamins, minerals, water metabolism, and composition of foods, diets for people under normal physiologic stress, the dietetic treatment of diseases, and diet outlines and recipes supporting the therapy suggestions and outlines The authors employ the tables of the National Research Council as basis for dietary food requirements

The reviewer considers this a good book but thinks that the economic surveys are too changeable to belong to a textbook. Morris Ant

Ophthalmology in the War Years. Vol II (1944-June, 1946) Edited by Meyer Wiener, M D Octavo of 977 pages Chicago, Year Book Publishers, 1948 Cloth, $16

This second volume of *Ophthalmology in the War Years* covers the period from January, 1944, to June, 1946, and, in the words of the editor, aims "to include everything of importance published during that time" These two volumes represent a most valuable contribution to ophthalmology of recent years.

The reader is impressed with the extensive bibliographies following each of the 33 chapters in this volume, each contributed by a different author or authors They have tried to provide a brief résumé of most of these many references For one who is preparing a paper or is involved in a research problem, this book is most valuable for reference. At any rate, one has before him a panorama of tremendous activity and progress in the field of ophthalmology Emanuel Krimsky

Monocular Vision Training By Mildred Smith Evans Quarto of 93 pages, illustrated. Baltimore, Williams & Wilkins Company, 1947 Cloth, $3 00

This home exercise book for children consists of lessons timed for a thirty-minute period for the treatment of strabismic amblyopia. The good eye is patched, and the child is instructed to trace various objects, to connect points making a figure, to read, and to differentiate colors.

The lessons are very ingenious and orientated to hold the child's curiosity and attention The progress of the patient may easily be determined by the parent or the orthoptic technician

Miss Evans has made another orthoptic contribution to the difficult problem of treating strabismic amblyopia. Of course, we must remember that surgery, if necessary, and orthoptics must work hand in hand in these cases Norris C Elvin

Strabismus A Clinical Handbook. By George J Epstein, M D Octavo of 214 pages, illustrated, Philadelphia, Blakiston Co, 1948 Cloth, $5 00

This monograph of 214 pages is instructive and well printed It will find a broad usefulness in the field of resident training It will doubtless be popular as its viewpoint is unusual Perhaps a future edition will justify inclusion of improved illustrations, particularly on pages four and five

A defect common to this book and practically all others on strabismus is the lack of real evidence from ordered studies to support positive statements

A more elaborate bibliography would be useful John N Evans

Handbook of Ophthalmology By Everett L Goar, M D Octavo of 166 pages, illustrated St Louis, C V Mosby Co, 1948 Cloth, $5 50

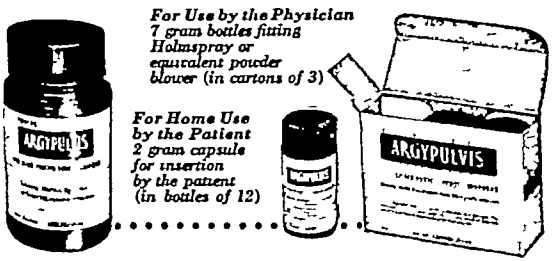
The author's aim in this elementary handbook of 162 pages was to provide his undergraduate students with an even simpler introduction to ophthalmology than is found in well-established manuals on the subject The first chapter deals with historical phases in ophthalmology which more advanced books fail to treat Otherwise, the subjects and arrangement follow the familiar pattern and are dealt with comprehensively and in simple language The medical student will be grateful for not being taxed with too much information Emanuel Krimsky

[Continued on page 1600]



ARGYPULVIS 98% Effective in TRICHOMONIASIS

according to published report of Reich, Button and Nechtow, "Treatment of Trichomonas Vaginalis Vaginitis," *Surgery, Gynecology and Obstetrics*, May, 1947, pp 891-896 *



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[Continued from page 1598]

The Skull, Sinuses & Mastoids A Handbook of Roentgen Diagnosis. By Barton R. Young, M D Octavo of 328 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $6 50

Medical students, physicians, roentgenologists in training—in short, anyone who wishes to inform himself speedily and conveniently about the roentgen technic and diagnosis of the skull, sinuses, and mastoids in health and disease, in children and adults, will find all that is of practical importance on the 314 pages of this book. The language is understandable and admirably to the point. The content is authentic The text is arranged in such a fashion that it can be studied simultaneously with the illustrations These illustrations are plentiful and of good quality SIEGFRIED W WESTING

A Handbook on Diseases of Children. Including Dietetics and the Common Fevers. By Bruce Williamson, M D Fifth edition Duodecimo of 408 pages, illustrated Baltimore, Williams & Wilkins Co , 1947 Cloth, $4 50

This compact handbook is a concise compendium on pediatrics Of necessity, brevity is the mainstay, so that even though practically every pediatric problem is touched upon, the surface of only a few diseases is penetrated.

Treatment does not form a major part of the work, and the newer antibiotics are treated all too sketchily

The value of the text lies in the rapidity with which one has available a brief review of pediatrics MARK J WALLFIELD

A Manual of Pharmacology and Its Applications to Therapeutics and Toxicology By Torald Sollmann, M D Seventh edition Quarto of 1,132 pages Philadelphia, W B Saunders Co , 1948 Cloth, $11 50

This classic manual of pharmacology has now appeared in a new revised seventh edition Numerous sections have been entirely rewritten or added for the first time Curare, "nitrogen mustards," BAL, and the antithyroid drugs are only a few which are now reviewed in this superb work.

ANDREW M BABEY

Gardiner's Handbook of Skin Diseases Revised by John Kinnear, M D Fifth edition Duodecimo of 250 pages, illustrated Baltimore, Williams & Wilkins Co , 1948. Cloth, $4 50

Written truly as a pocket manual for general practitioners, and as a helpful guide to nurses in the care of patients, this handbook is short and gives definite instruction in the method of application of remedies with the reasons therefor

It includes all of the common skin diseases, but naturally its description of them is short. It is, however, a valuable book for one with a very limited acquaintance with cutaneous diseases

E ALMORE GAUVAIN

Venous Thrombosis and Pulmonary Embolism. By Harold Neuhof, M D Octavo of 169 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $4 50 (Mt Sinai Hospital Monograph No 2)

Dr Neuhof's book is a valuable addition to a growing list of useful American monographs It combines a scholarly review of the field of venous thrombosis and pulmonary embolism with a summary of the author's own observations extending over many years It will prove valuable, in spite of a rather poorly arranged text, to internist and surgeon alike MILTON PLOTZ

The Hospital Care of Neurosurgical Patients. By Wallace B Hamby, M D Second edition Octavo of 156 pages illustrated. Springfield, Ill., Charles C Thomas, 1948 Cloth, $3 00

A truly scientific and fine book on neurosurgical conditions, it is well illustrated and set up in a clear, concise manner The anatomy is clear and descriptive Each topic is well covered and organized, but unfortunately, it neglects to give any nursing care.

Physicians, as well as nurses, would profit by detailed nursing care because it differs from any other surgical condition This book should be in all hospital and nursing school libraries

MARIE M BEHLEN

Recent Advances in Medicine Clinical, Laboratory, Therapeutic. By G E Beaumont, M D , and E C Dodds, M D Twelfth edition Duodecimo of 422 pages, illustrated. Philadelphia, Blakiston Co , 1947 Cloth, $6 00

This is the twelfth edition of a well-known British contribution to clinical and laboratory medicine. It is so well-known and so reliable that scarcely anything needs to be said in its favor There are excellent new sections on vitamins, penicillin and other antibiotics, atypical pneumonia, hepatitis, and thiouracil

It is warmly recommended ANDREW BABEY

Practical Methods in Biochemistry By Frederick C Koch and Martin E Hanke Fifth edition Octavo of 419 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $3 00

In its latest edition this laboratory manual presents the new and revised methods in biochemistry It includes chapters dealing with the various reduction, physical, and biologic tests on carbohydrates There are chapters on lipins, and estimation of proteins, amino acids, and hydrogen-ion concentration. There are practical experiments on the chemistry of salivary, gastric, and intestinal digestion The quantitative analysis of blood and urine, as well as the latest methods of colorimetric, fluorometric, and microbiologic estimation of vitamins and hormones are well described EDWARD H NIDISH

Urine and Urinalysis By Louis Gershenfeld, D Sc Third edition Duodecimo of 347 pages, illustrated New York, Romaine Pierson, 1948 Cloth, $5 00

The study of urine in health and disease is, of course, an important part of laboratory medicine Any volume which deals exclusively with this phase of the laboratory is worthy of notice The volume in question devotes over 300 pages to rare and common disorders as exemplified by the urine studies For that reason it is a good reference work

ANDREW BABEY

Bodies and Souls. By Maxence van der Meersch Translated by Eithne Wilkins Octavo of 654 pages Chicago, Pellegrini & Cudahy, 1948 Cloth, $3 75

New York *Times* review of this novel is captioned, "Scalpel versus Mammon" This does not seem an adequate summary of a fine novel in which doctors play almost all of the important roles The outstanding figure, in our estimation, is not the sacrificing son, with the tubercular wife and the high

[Continued on page 1602]

FROM SECRETARY OF DEFENSE LOUIS JOHNSON—

AN URGENT APPEAL TO YOUNG DOCTORS!



Your personal help is needed to avert a serious threat to our national security!

By the end of July of this year we will have lost almost one-third of the physicians and dentists now serving with our Armed Forces Without an increased inflow of such personnel, the shortage will assume even more dangerous proportions by December of this year

These losses are due to normal expiration of terms of service The professional men who are leaving the Armed Forces during this critical period are doing so because they have fulfilled their duty-obligations and have earned the right to return to civilian practice

Without sufficient replacements for these losses, we cannot continue to provide adequate medical and dental care for the almost 1,700,000 service men and women who are the backbone of our nation's defense

Normal procurement channels will not provide sufficient replacements!

To alleviate this critical, impending shortage of professional manpower in the three services, I am urging all physicians and dentists who were trained under wartime A S T P and V-12 programs under government auspices or who were deferred in order to complete their training at personal expense, *and who saw no active service,* to volunteer for a two-year tour of active duty, at once!

We have written personally to more than 10,000 of you in the past weeks urging such action The response to this appeal has not been encouraging, and our Armed Forces move rapidly toward a professional manpower crisis!

Many responses have been negative, but worse—a great number of doctors have not replied It is urgent that we hear from you immediately!

We feel certain that you recognize an obligation to your fellow men as well as to your profession in this matter We are confident that you will fulfill that obligation in the spirit of public service that is a tradition with the physician and dentist.

There is much to be said for a tour of duty with any of the Armed Forces You will work and train with leading men of your professions You will have access to abundant clinical material, have the best medical and dental facilities in which to practice You will expand your whole concept of life through travel and practice in foreign lands In many ways, a tour of service will be invaluable to you in later professional life!

Volunteer now for active duty You are urged to contact the Office of Secretary of Defense by collect wire immediately, signifying your acceptance and date of availability Your services are badly needed Will you offer them?

Louis Johnson

[Continued from page 1600]

medical morals, but his frustrated father who is not entirely honest in his interpretation of the results of his treatment of the insane by shock treatment and has later, to face most saddening domestic problems

The author practiced law before turning his talents to writing, but he has produced in this book a Balzac-like novel about doctors with an astounding wealth of medical detail—detail which is essentially accurate, but often of questionable appropriateness for the lay reader JOSEPH RAPHAEL

Vascular Diseases in Clinical Practice By Irving Sherwood Wright, M D Large duodecimo of 514 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $7 50

This work is clearly and logically written in an easy-to-read, person-to-person style Many illustrations and case reports are well woven into the text. It is representative of the best in the modern clinical practice of peripheral vascular disease Emphasis is laid on the anticoagulant drugs The section on diagnosis and therapy of disorders of the veins is particularly well handled

JOSEPH R DIPALMA

Physiology of Exercise By Laurence E Morehouse, Ph D, and Augustus T Miller, Jr, Ph D Octavo of 323 pages, illustrated St Louis, C V Mosby Co, 1948 Cloth, $4 75

This descriptive book is well organized, clear, and well illustrated The glossary is most helpful

This book should be of great service to the physical education group but not appropriate for nurses The topic of exercise is not that fully covered in the nursing curriculum.

Since physical education has become such an essential part of the nursing program, the book might be placed in the nurses' library It would be a good reference book. MARIE M BEHLEN

Textbook of Gynecology By Emil Novak, M.D Third edition Octavo of 742 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $8 00

An immense amount of information will be found in this well planned work. It is an excellent textbook for the student and a practical source of information for the practitioner who is concerned with diagnosis and treatment The illustrations are excellent, and the text may be read easily This sound textbook is highly recommended

CHARLES A. GORDON

The Medical Clinics of North America. Mayo Clinic Number July, 1948 Octavo Philadelphia, W B Saunders Co, 1948 Published Bi-Monthly (six numbers a year) Cloth, $16 00 net, paper, $12 net

The Mayo Clinic number of the *Medical Clinics of North America* includes an excellent five-paper symposium on anomalies of the heart. There are also nine other highly satisfactory clinics by various members of the Mayo staff The paper by Odel *et al* on clinical considerations of the problem of extrarenal excretion is of monographic proportions and will be of particular value to the practitioner who wishes to know more about this procedure.

MILTON PLOTZ

Treatise on Surgical Infections. By Frank Lamont Meleney, M D Octavo of 713 pages, illustrated. New York, Oxford University Press, 1948 Cloth, $12

The tireless efforts of Frank Meleney to solve the bacteriologic problems of surgery have won the admiration of all of us His comprehensive text will be eagerly read by every surgeon Its pages carry the complete story of bacterial invasion, our natural defenses, and the agents which we now marshal to repel the marauders The essentials of fine surgical technic are discussed This book is unique There has not been one like it CHARLES A. GORDON

Racial Variations in Immunity to Syphilis A Study of the Disease in the Chinese, White, and Negro Races By Chester North Frazier, M.D, and Li Hung-Chiung, M D Octavo of 122 pages, illustrated Chicago, University of Chicago Press, 1948 Cloth, $2 50

This book of only about one hundred pages is chockfull of statistics on this subject The authors have taken the records of Baltimore clinics, comprised of white and Negro patients with syphilis, to compare with cases of their own in Peiping, China There were approximately the same number of patients in all three racial groups

The studies investigated (and there are many tables of results) the incidence of syphilis in the three groups, dividing each into male and female cases They are classified according to the stage of the disease and the type of lesions occurring Among other conclusions, they determined that skeletal involvement in the Chinese is much more common than in the other two groups and believe this may be due to dietary inadequacies Meningitis is also more common among Chinese in early stages of the disease They also observed that there are probably greater differences depending upon sex than on race.

A reading of the text is certainly necessary to get the benefit of this profound and exhaustive study

E ALMORE GAUVAIN

Medical Hypnosis By Lewis R. Wolberg, M D In two volumes. Vol I, The Principles of Hypnotherapy, 449 pages Vol II, The Practice of Hypnotherapy, 513 pages Octavo New York, Grune & Stratton, 1948 Cloth, Vol I, $5 50, Vol. II, $6 50

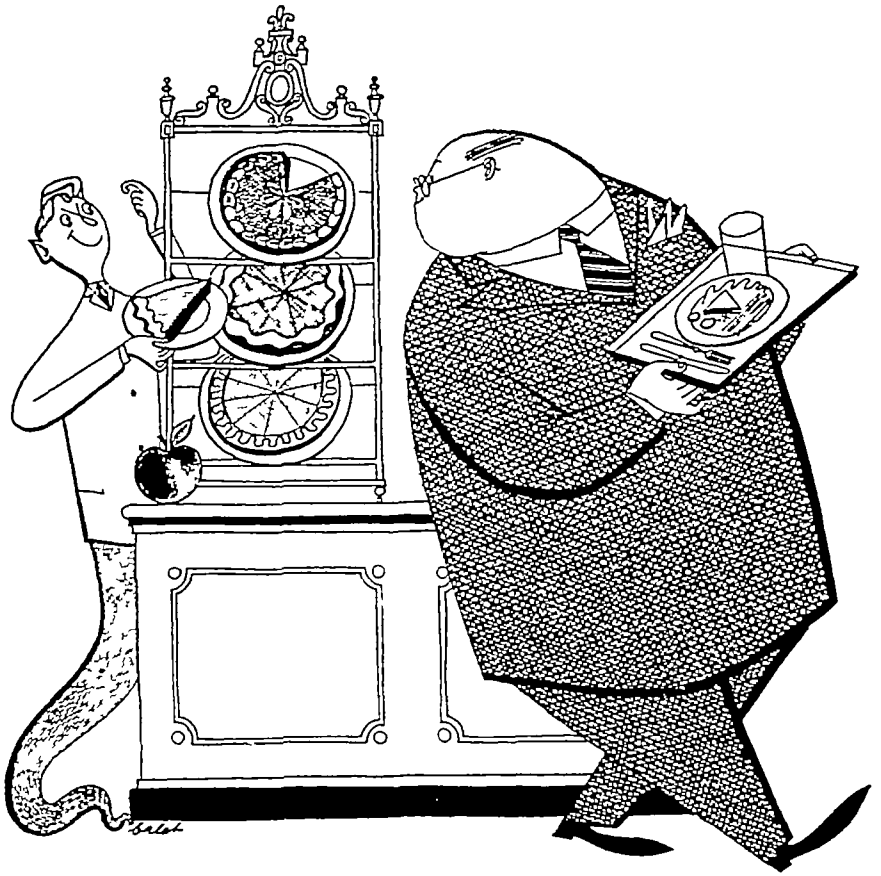
In order to qualify himself for the gargantuan task of demonstrating the scientific value of hypnosis in medicine, the author has undoubtedly acquired all available knowledge on the subject and has compiled it into two volumes, the first of which is an authentic history of hypnosis from its inception to the present day, and the second a thoroughgoing study of its application to psychotherapy

In this work the author has evinced a great sensitivity to dynamic mechanisms of personality formation and an unusual skill in the application of all current technics to the treatment of mental cases The work is amply illustrated with clinical cases and dramatically reinforced with unusual clarity and precision The results obtained with this treatment in the hands of Dr Wolberg are often spectacular but are usually evaluated objectively and critically

Since the author assumes that hypnosis is a catalyst to psychotherapy rather than a substitute for it, he attempts to estimate as accurately as possible the depth of the induced hypnotic state that is most effective in achieving his therapeutic goal in each individual case Any student of this subject, interested in employing hypnosis in psychotherapy would do well to read these two volumes, which are both stimulating and instructive

SIMON ROTHENBERG

[Continued on page 1604]



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[Continued from page 1602]

Peripheral Vascular Diseases Diagnosis and Treatment. By David W Kramer, M D Octavo of 620 pages, illustrated Philadelphia, F A Davis Co , 1948 Cloth, $8 00

In writing this second edition, Dr Kramer has considerably improved his book It is larger, more comprehensive and, as far as can be seen, has been practically rewritten The first section deals with a satisfactory and practical description of history-taking, physical signs, and special tests, with a sensible evaluation of the instrumental technics

The next section is devoted to a presentation of the occlusive vascular disorders It is difficult to accept Dr Kramer's persistence in treating cases of endarteritis obliterans as a separate entity from thromboangiitis obliterans It is generally accepted that they are pathologically and clinically one and the same disease

Then follow sections on vasospastic diseases, open lesions, and diseases of the veins and lymphatics His discussion of the therapeutic aspects of the diseases treated is sensible and up to date

W S COLLENS

Barbed-Wire Surgeon. By Alfred A. Weinstein, M D Octavo of 310 pages New York, Macmillan Company, 1948 Cloth, $3 00

This is a fine book It tells the story, and tells it well, of the experiences of the prisoners of war of the Japanese after the fall of Bataan and Corregidor Dr Weinstein makes no attempt to explain away defeats or plan campaigns He has confined himself to the important job of giving a medical man's description of the horrors and hardships of the men behind the "barbed wire" On the jacket, the publishers have boxed the plug, "It will be read wherever there are hearts that thrill to a magnificent story of courage and resolution" We are led to accept the boast, without reservation JOSEPH RAPHAEL

Midwifery By Ten Teachers under the direction of Clifford White, M D Edited by Clifford White, M D , Frank Cook, M B (Eng), and William Gilliatt, M D Eighth edition Octavo of 560 pages, illustrated Baltimore, Williams & Wilkins, 1948 Cloth, $6 00

This text has been deservedly popular for over thirty years, although, of necessity, changes have occurred in the names of the ten famous teachers Only the bare essentials of obstetrics are here, yet the presentation is excellent The importance of hemorrhage and the necessity for preparedness receives little attention CHARLES A. GORDON

The Salicylates. A Critical Bibliographic Review By Martin Gross, M D , and Leon A Greenberg, Ph D Octavo of 380 pages, illustrated New Haven, Hillhouse Press, 1948 Cloth, $6 00 (Monographs of the Institute for the Study of Analgesic and Sedative Drugs)

This book gives a detailed description of the salicylates It describes the occurrence of the salicylates in nature, their physical and chemical properties, and the incompatibilities There are chapters dealing with their analgesic and antipyretic effects The action of the salicylates on the blood and various organs of the body is given in detail, including their therapeutic and poisonous effects There is also a detailed bibliography of over four thousand references EDWARD H NIDISH

Hemolysis and Related Phenomena. By Eric Ponder, M D Octavo of 398 pages, illustrated New York, Grune & Stratton, 1948 Cloth $10

This monumental work will serve as a bible to all those working in hematology Here one will find authoritatively stated facts concerning hemolysis and related phenomena In seven well-documented chapters the author covers shape changes unaccompanied by volume changes, shape changes accompanied by volume changes, cytochemistry and architecture, kinetics of hemolysis, inhibition and acceleration of hemolysis and, lastly, hemolysis in vivo

It is impossible to review this book without a spirit of reverence for the author who has done so well to set the yardstick of our present knowledge of hemolytic phenomena MAURICE MORRISON

Standard Radiographic Positions By Nancy Davies and Ursel Isenburg Second edition. Octavo of 223 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

This is a guide to proper positioning of patients for x-ray technicians It is written by two English radiographers The illustrations are simple hand drawings or reproductions of plans Much useful information can be found in this small volume

ANDREW M BABEY

The Back and Its Disorders. By Philip Lewin, M D Octavo of 157 pages, illustrated New York, McGraw-Hill Book Co , 1948 Cloth, $2 50

In his preface, Dr Lewin states that this book is written for the guidance of the general public rather than for doctors There may be no difference of opinion as to the need of such an appeal to the public, but it would seem that the doctor has crowded such a wealth of anatomic and pathologic detail in his 155 pages, with glossary, that he has somewhat overshot his mark and given the public more than it should be expected to understand Our impression is that medical men, those without special orthopedic training, might read this book, with profit, in the attempt to systematize their knowledge of that protean problem, "back pain"

JOSEPH RAPHAEL

Diseases of the Ear, Nose and Throat. By William Wallace Morrison, M D Octavo of 772 pages, illustrated New York, Appleton-Century-Crofts, 1948 Cloth, $8 50

Morrison's book on the *Diseases of the Ear, Nose and Throat* is well written, clear, and concise, with many illustrative diagrammatic sketches serving as visual aids in clarifying the various points under discussion This should be a valuable and instructive book to the student and general practitioner who wish to have a basic understanding and practical knowledge of the subject SYDNEY SHAPIN

General Endocrinology By C Donnell Turner, Ph D Octavo of 604 pages, illustrated Philadelphia, W B Saunders Co , 1948 Cloth, $6 75

This book is intended for advanced investigators and practicing physicians It gives the fundamentals of endocrinology It is a good basis for a complete understanding of endocrinology, coordinating the mechanism in plants, vertebrates, and invertebrates It is an erudite, excellent, concise accumulation of scientific data It has numerous illustrations

While the clinical aspects are not extensive, the other data will make for a rounding of clinical interpretation BERNARD SELIGMAN

[Continued on page 1606]

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[Continued from page 1604]

Progress in Neurology and Psychiatry An Annual Review Vol III Edited by E A Spiegel, M D Octavo of 661 pages New York, Grune & Stratton, 1948 Cloth, $10

Both editor and publisher deserve unstinted praise for publishing this most valuable project composed of over 2,800 papers which are pertinently reviewed in this volume

The editorial board, assisted by outstanding contributors, has combed through the worthwhile literature on the four departments of the contents basic sciences, neurology, neurosurgery, and psychiatry Each of these departments has been assigned to outstanding authorities who not only present their own material but also that of their colleagues and document their contribution by references appended to each review

This annual review is a *sine qua non* to neuropsychiatrists as well as to the physician and student of medicine who obligate themselves to keep abreast of the rapidly growing research and practical applications of these specialties of medicine

FREDERICK L PATRY

Clinical Laboratory Methods and Diagnosis A Textbook on Laboratory Procedures with Their Interpretation By R B H Gradwohl, M D, and Dr Pedro Kourí Fourth edition In three volumes Quarto Vols I and II, 2,284 pages Vol III, Parasitology and Tropical Medicine, 864 pages Illustrated St Louis, C V Mosby Co, 1948 *Cloth, $40 set*

Student, teacher, and practitioner, alike, should find the revised volumes of accepted laboratory tests, with their interpretations and original references, a most valuable guide to modern laboratory diagnosis The division of the former text material into three separate volumes is of distinct advantage and is well worth the additional space which those volumes require The scope of clinical pathology has extended beyond the knowledge of any one authority The author's decision to publish three new volumes, with contributions by experts, to replace the one old one is symbolic of the rapid progress which this specialty has made in recent years. Distinguished authorities have revised and brought up to date the assembled material of their respective specialties The section on bacteriology has been almost completely revised Exfoliative cytology, especially vaginal smears for the diagnosis of cancer, is concisely but fully treated, from a practical standpoint The Rh factor is discussed with clarity, omitting controversial problems Parasitology is a separate volume which, by itself, is worth the price of the entire set. The plates are excellent, and the binding is attractive in color and very durable

S H POLAYES

Handbook of Treatment and Medical Formulary, By Charles M Gruber, M D Octavo of 585 pages Philadelphia, F A Davis Co, 1948 Cloth, $7 00

This is a sensibly well-bound, concise, and easily readable epitome of the latest knowledge that has come to us through the years of painstaking research in the fields of medicine, epidemiology, pharmacy, and therapeutics It is no scarehead cure-all in twenty-four hours, such as the popular so-called "lay medical articles' that have been appearing far too often in the lay press would have us believe is possible This is a concentrate of real knowledge, carefully and painstakingly screened out of all trash, boiled down and carefully skimmed of all the fat and froth, till we have the mother liquor which has stood the test of time and from which we can expect something but not too much No panaceas have been discovered, despite public clamor to the contrary, not even a twenty-four-hour cure for syphilis!

It is well worth a place in anyone's library or, better still, in the bag, for ready reference

THOMAS F NEVINS

The Discovery of the Orgone. Volume 2 The Cancer Biopathy By Wilhelm Reich, M D Translated by Theodore P Wolfe, M D Octavo of 409 pages, illustrated New York, Orgone Institute Pr, 1948 Cloth, $8 50

The author of this volume claims to be the discoverer of the existence of a basically new form of cosmic energy which he calls "orgone" Armed with this approach, he attempts to solve the problem of cancer by methods that, to the current ways of scientific thinking, are, to say the least, distinctly unconventional

While much of the book is incomprehensible to the reviewer, certain facts, namely those dealing with "orgone biophysical" blood tests for cancer, fall within the scope of his laboratory knowledge, and for that reason it can be safely said on *a priori* grounds that such laboratory tests as blood cultures, the biologic resistance tests, and possibly the disintegration test of red cells in physiologic salt solution are quite unfounded in laboratory fact For this and other reasons, it seems safe to say that this book cannot be regarded as contributing toward the solution of the cancer problem as it is conventionally understood by the medical profession

THEO J CURPHEY

The Digestive Tract in Roentgenology By Jacob Buckstein, M D Quarto of 889 pages, illustrated. Philadelphia, J B Lippincott Co, 1948 Cloth $16 00

The tremendously large material of Bellevue Hospital forms the basis of this volume whose greatest usefulness will be for readers seeking authentic information on rare diseases, for instance, syphilis of the stomach The novice desirous of acquainting himself with alimentary tract roentgenology also will derive benefit from this well-written, well-documented, well-illustrated, and rather complete presentation

The author seems overcritical regarding the mucosa study of the digestive tract which, in the reviewer's opinion, deserves more emphatic recommendation The roentgenography of the lower pharynx, so often omitted in books and in the daily work, has been given due consideration

SIEGFRIED W WESTING

An Index of Treatment by Various Writers Edited by Sir Robert Hutchison, M D Assisted by Reginald Hilton, M D Thirteenth edition Octavo of 972 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $17

This is the thirteenth edition of a deservedly popular British compendium of treatment modeled on French's *Differential Diagnosis* Many of the best figures in England are contributors As usual, the material is clearly and well written, although necessarily brief

This volume is recommended for the wealth of sound, conservative therapy presented

ANDREW M BABEY

Practice of Allergy By Warren T Vaughan, M D Revised by J Harvey Black, M D Second

[Continued on page 1608]

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"Because of the convenience, smaller adequate dose, and better tolerance, the trend is toward the use of ferrous sulfate"

Stelke, E L Rhode Island M.J 21 61 (April) 1938

True in '48

"No iron preparation has proved superior to ferrous sulfate, with respect either to economy or efficacy"

Emerson, C P, Jr M Clin North America 32 1264 (Sept) 1948

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Smith, Kline & French Laboratories
Philadelphia

[Continued from page 1606]

edition Quarto of 1,132 pages, illustrated St. Louis, C V Mosby Co , 1948 Cloth, $15

This revision by J Harvey Black of Warren Vaughan's outstanding book on *Practice of Allergy*, published first in 1939, is most welcome It retains the excellent qualities of the original and adds some of the more recent developments in the field

Noteworthy additions are O C Durham's chapters on the newer technics for pollen counting and on the results of country-wide pollen surveys Ragweed pollen indexes for the entire country are included The chapter on skin testing is unusually complete

The revised book retains its position as one of the best in the field of allergy MATTHEW WALZER

Occupational Therapy Source Book. Edited by Sidney Licht, M D Octavo of 90 pages Baltimore, Williams & Wilkins Co , 1948 Cloth, $1 00

This book is written to urge the further use of occupational therapy in the treatment of mental diseases The question of occupational therapy is dealt with from ancient times to the present A strong plea is made that occupational therapy be utilized to a greater extent and this with justification after viewing the results of the use of therapy

ARTHUR D JAQUES

Polio and Its Problems. By Roland H Berg Octavo of 174 pages, illustrated Philadelphia, J B Lippincott Co , 1948 Cloth, $3 00

Here is an intensely absorbing history of polio from the time it was first recognized The successes and failures of men of science who persistently tried and are still working to find the cause and cure of infantile paralysis are described dramatically

This book should be equally interesting to laymen and those of the medical profession

It should be a further means of keeping "polio" before the American public until it is conquered

JOHN A. MONFORT

Synopsis of Pediatrics By John Zahorsky, M D , assisted by T S Zahorsky, M D Fifth edition Duodecimo of 449 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $5 50

This must have been a very timely book in the days of Tr Ferri Chloride and Ichthyol ointment Both of these remedies are strongly recommended by the authors Empyema is still being treated by thoracotomy and "a mortality of 25 per cent to 30 per cent is to be expected " The modern treatment of empyema by aspiration and penicillin injections is not even mentioned We are told by the publisher that this is a new book The chapter on asthma is equally amateurish if not misleading in its symptomatology

After perusing some of the more representative chapters, the reviewer is forced to the conclusion that this book is quite obsolete It is not fair to offer this to the student of medicine as a modern work

HARRY APFEL

Recent Advances in Anaesthesia and Analgesia (Including Oxygen Therapy) By C Langton Hewer, M B (Eng) Sixth edition Duodecimo of 380 pages, illustrated Philadelphia, Blakiston Co , 1948 Cloth, $6 00

In this small volume an attempt is made to embrace the whole field of anesthesiology which, of course, makes each part of the book inadequate because of its too wide scope

There are chapters on shock, cardiac massage, methods of nerve blocking, as well as others on oxygen therapy and resuscitation Each of these, actually containing only an occasional point is insufficient by itself However, the work is well illustrated, and some of the line drawings are illuminative

This book could serve as an introduction to the field of anesthesiology F PAUL ANSBRO

Detailed Atlas of the Head and Neck By Raymond C Truex, M S , and Carl E Kellner Folio of 162 pages, illustrated New York, Oxford University Press, 1948 Cloth, $15

This atlas is the culmination of many years of diligent and careful dissections by Professor Truex, portrayed by the artist, Carl E Kellner, whose reproductions are almost "lifelike " We remember well the difficulties we had with our studies in anatomy and with our dissections, so we are indeed in a position to appreciate first hand the serial dissections and their artistic reproductions in this book. Those of us who are particularly interested in the anatomy of the head and neck will indeed enjoy a refresher course by the study and the much needed reference to this volume The head and neck surgeon can profit well by a study of the detailed dissections of the area which he is about to explore surgically We were helped materially by the fact that each structure was carefully identified with the naming of these structures directly on the illustrations which were beautifully done in color An atlas of this type should be in every hospital and every doctor's library SAMUEL ZWERLING

Pediatric Nursing By Gladys S Benz, R.N Octavo of 638 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $4.00

This is more than a book on nursing It is a reference work on the care of children at home as well as at the hospital It contains valuable information on sex education and a detailed discussion on entertainment for children

Ample space is devoted to the prevention and care of communicable diseases This book is well fitted for advanced study The book is well written, but it also contains superfluous material, e g , 101 pages are devoted to the bibliography on relevant subjects It is also profusely illustrated

HARRY APFEL

The Clinical Management of Varicose Veins By David Woolfolk Barrow, M D Octavo of 155 pages, illustrated. New York, Paul B Hoeber, 1948 Cloth, $5 00

This well-written, short survey of the treatment of varicose veins and their allied complications can easily be read with sustained interest at one sitting

Controversial questions are eliminated and the modern concepts presented Numerous photographs and diagrammatic representations make reading matter readily understandable In extensive varicosities and in complicated conditions, high saphenous ligations, with stripping, is the treatment recommended as decreasing the incidence of recurrence The book is highly recommended

HUGH L MURPHY

Your Baby The Complete Baby Book for Mothers and Fathers By Gladys Denny Shultz and Lee Forrest Hill, M D Quarto of 237 pages, illustrated New York, Doubleday & Co , 1948 Cloth, $3 50

Your Baby is a storehouse of information for mother and father From the first month of preg-

[Continued on page 1610]

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[Continued from page 1606]

edition. Quarto of 1,132 pages, illustrated St Louis, C V Mosby Co, 1948 Cloth, $15

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There are chapters on shock, cardiac massage, methods of nerve blocking, as well as others on oxygen therapy and resuscitation Each of these, actually containing only an occasional point is insufficient by itself However, the work is well illustrated, and some of the line drawings are illuminative

This book could serve as an introduction to the field of anesthesiology F PAUL ANSBRO

Detailed Atlas of the Head and Neck. By Raymond C Truex, M S, and Carl E. Kellner Folio of 162 pages, illustrated. New York, Oxford University Press, 1948 Cloth, $15

This atlas is the culmination of many years of diligent and careful dissections by Professor Truex, portrayed by the artist, Carl E Kellner, whose reproductions are almost "lifelike" We remember well the difficulties we had with our studies in anatomy and with our dissections, so we are indeed in a position to appreciate first hand the serial dissections and their artistic reproductions in this book. Those of us who are particularly interested in the anatomy of the head and neck will indeed enjoy a refresher course by the study and the much needed reference to this volume The head and neck surgeon can profit well by a study of the detailed dissections of the area which he is about to explore surgically We were helped materially by the fact that each structure was carefully identified with the naming of these structures directly on the illustrations which were beautifully done in color An atlas of this type should be in every hospital and every doctor's library SAMUEL ZWERLING

Pediatric Nursing By Gladys S Benz, R.N Octavo of 638 pages, illustrated. St Louis, C V Mosby Co, 1948 Cloth, $4 00

This is more than a book on nursing It is a reference work on the care of children at home as well as at the hospital It contains valuable information on sex education and a detailed discussion on entertainment for children

Ample space is devoted to the prevention and care of communicable diseases This book is well fitted for advanced study The book is well written, but it also contains superfluous material, e g, 101 pages are devoted to the bibliography on relevant subjects It is also profusely illustrated

HARRY APFEL

The Clinical Management of Varicose Veins By David Woolfolk Barrow, M D Octavo of 155 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $5 00

This well-written, short survey of the treatment of varicose veins and their allied complications can easily be read with sustained interest at one sitting

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HUGH L MURPHY

Your Baby The Complete Baby Book for Mothers and Fathers By Gladys Denny Shultz and Lee Forrest Hill, M D Quarto of 237 pages, illustrated New York, Doubleday & Co, 1948 Cloth $3 50

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[Continued on page 1610]

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Therapeutisches Taschenbuch für Arzte und Studierende Edited by Dr G Ruepp Contributors, Prof W Burkhardt, Prof M Francillon, Dr E Hafter, *et al* Sextodecimo of 394 pages Bern, Switzerland, Medizinischer Verlag Hans Huber 1948 Cloth, 12 Sw fr

This is a small handbook of therapy compiled by a number of Swiss physicians The information contained is generally accurate but sketchy There is little in it to interest American doctors or students It is doubtful that a book of this sort would serve a useful purpose in any country except as a preparation for a most elementary examination

MILTON PLOTZ

Bailey's Text-Book of Histology Revised by Philip E Smith, Ph D , and Wilfred N Copenhaver, Ph.D Twelfth edition Octavo of 781 pages illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $7 00

The twelfth edition has been revised by the above authors with many new illustrations and microphotographs and should prove valuable to students Several chapters have been revised since the beginning, and the first few editions have been brought up to date The authors should be congratulated for their contribution to one of the best histology books

NATHAN REIBSTEIN

Preoperative and Postoperative Care of Surgical Patients. By Hugh C Ilgenfritz, M D Octavo of 898 pages, illustrated St Louis, C V Mosby Co , 1948 Cloth, $10

Much has been written on pre- and postoperative treatment during recent years The discriminating reader has at times been obliged to exercise great diligence in separating the wheat from the chaff Dr Ilgenfritz has been evidently quite aware of the need for presenting his subject in a way that is clear, easily applicable, and devoid of elements of controversy His discussion of fluid and electrolyte balance is presented with a simplicity akin to finality, not often encountered The factors presented by the very young and the very old patient are handled in a way that leaves little unsaid that is worthwhile

The book is well written, thoroughly complete, and yet devoid of unnecessary, space-taking material

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Bronchiogenic Carcinoma and Adenoma. With a Chapter on Mediastinal Tumors By B N Fried, M D Octavo of 306 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

Dr Fried has written an admirable monograph on bronchiogenic carcinoma and adenoma with a chapter on mediastinal tumors The literature is intelligently summarized, and Dr Fried's personal observations are skillfully added to make a readable account which should prove valuable to every clinician The reviewer hopes that the chapter on the mediastinum will be expanded in future editions

MILTON PLOTZ

Medical Writing The Technic and the Art. By Morris Fishbein, M D with the assistance of Jewel F Whelan Second edition Octavo of 292 pages, illustrated Philadelphia, Blakiston Co , 1948 Cloth, $4 00

Probably Dr Fishbein has read more medical articles than any one else This opportunity constructively to criticize and so to advise has been added to an innate ability and much experience in his own writing This book gives useful advice from plain grammar and the use of the comma to collection of material and formation of the paper, with its final revision This book should be at the right hand of every aspiring, and other medical writer

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Microbiology and Pathology By Charles F Carter, M D Fourth edition Octavo of 845 pages, illustrated. St Louis, C V Mosby Co , 1948 Cloth, $5 00

For nurses who need a short practical presentation of the fundamentals of bacteriology and pathology, this should continue to be a popular book. The plates and diagrams are generally relevant and helpful

ANDREW M BABEY

Essentials of Pathology By Lawrence W Smith, M D , and Edwin S Gault, M D Third edition Quarto of 764 pages, illustrated. Philadelphia, Blakiston Co , 1948 Cloth, $12

In the third edition of the *Essentials of Pathology* by Smith and Gault, the authors have executed an admirable improvement over the previous editions The material is exceptionally well selected and organized and very comprehensively and completely covered. The reading is easy, smooth, and attractive (a very important factor for the student) The classifications are orthodox, rational, and understandable for student and practitioner alike Both gross and microscopic illustrations are unusually clear and to the point From a general point of view, this book now takes its place among the best in pathology and should unquestionably find its place on every shelf of medical works

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Direct Electrocardiography of the Human Heart and Intrathoracic Electrocardiography By Franz M Groedel, M D , and Paul R Borchardt, M D Octavo of 224 pages, illustrated New York, Brooklyn Medical Press, 1948 Cloth, $9 00

Groedel and Borchardt have in this small volume compiled the results of their electrocardiographic observations on the hearts of some hundred or more patients on whom pneumonolysis was performed There is an exhaustive study of direct and intrathoracic electrocardiography under the given conditions While there is little here to interest the clinician, there is much that will be of importance to physiologists and electrocardiographers

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The Medical Clinics of North America. Boston Number September, 1948 Octavo Illustrated Philadelphia, W B Saunders Co , 1948 Published bimonthly (six numbers a year) Cloth, $16 net, paper, $12 net

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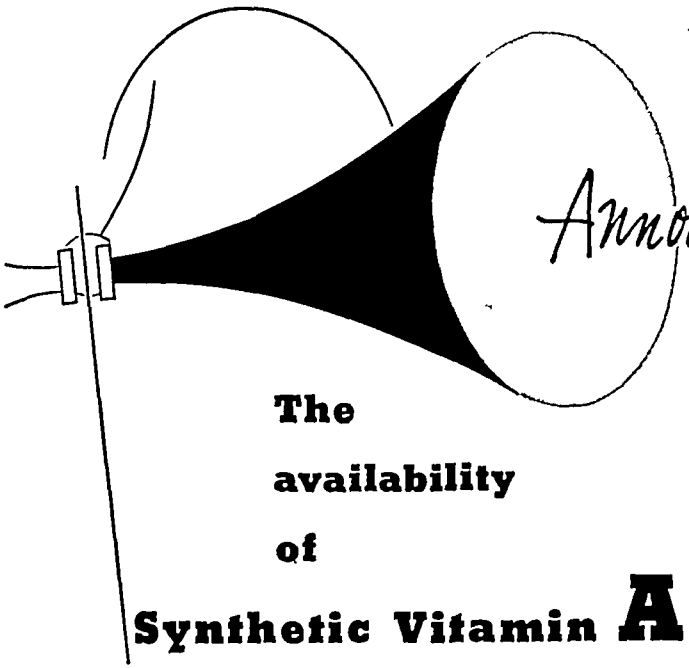
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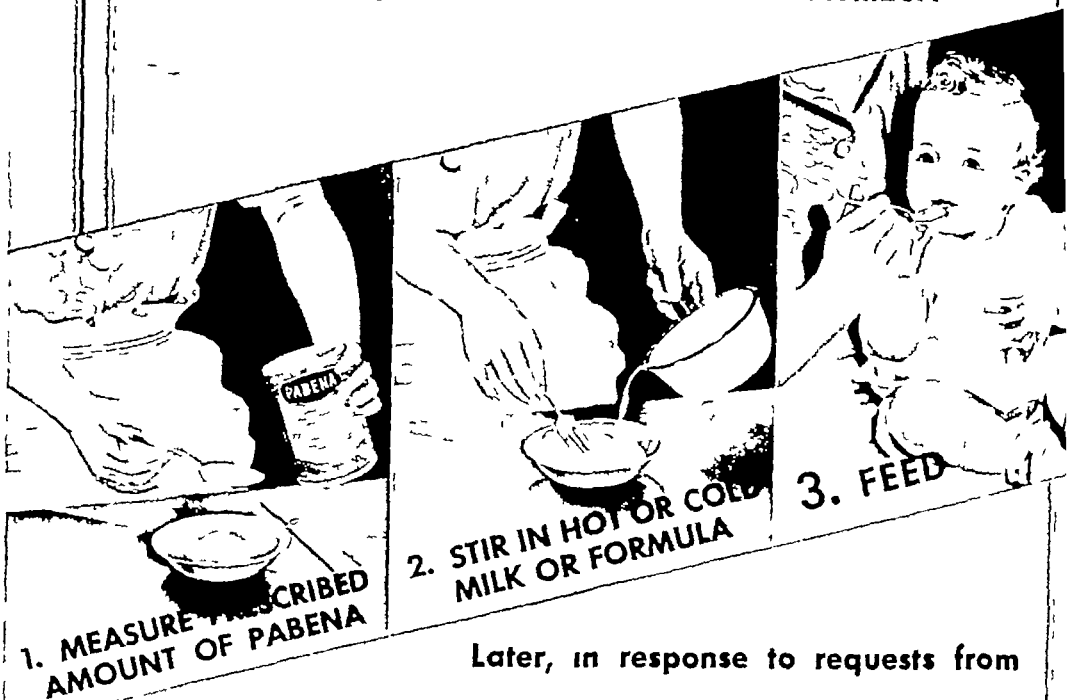
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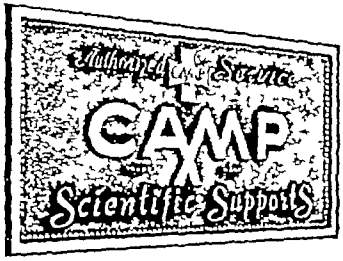
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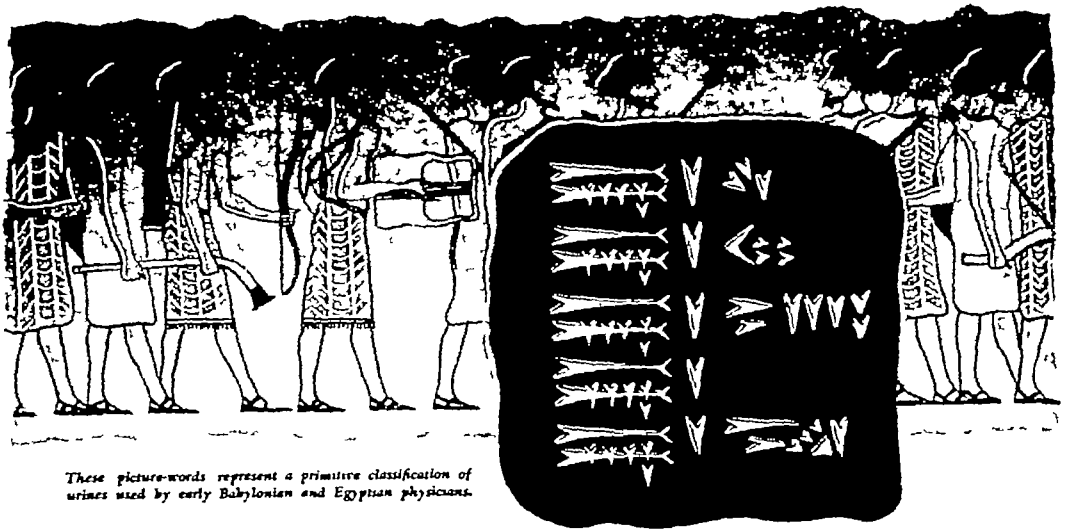
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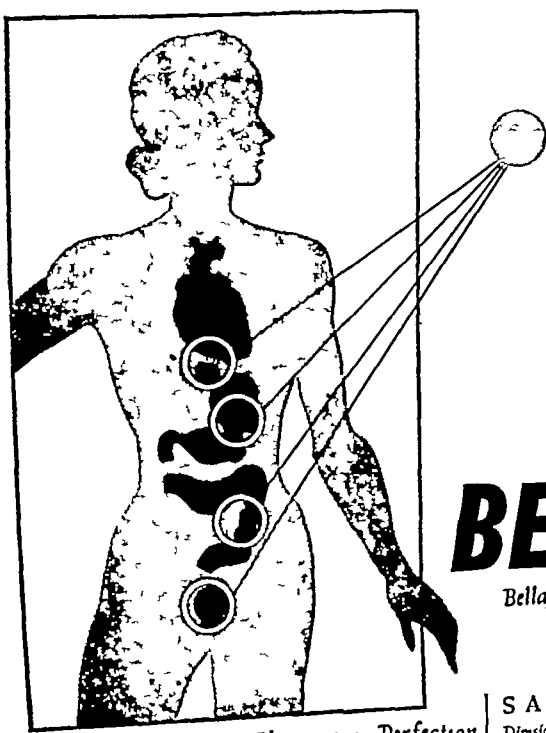
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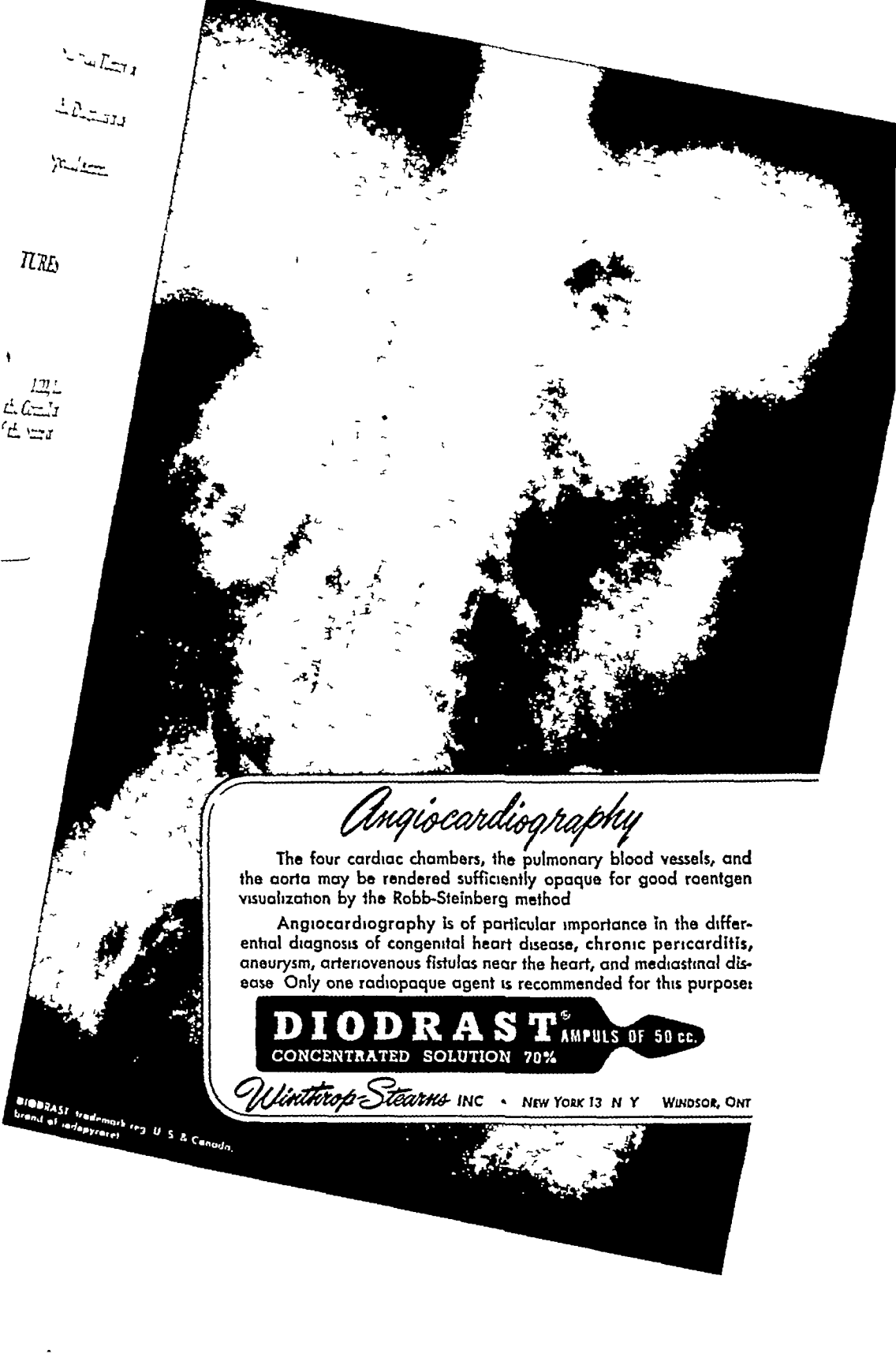
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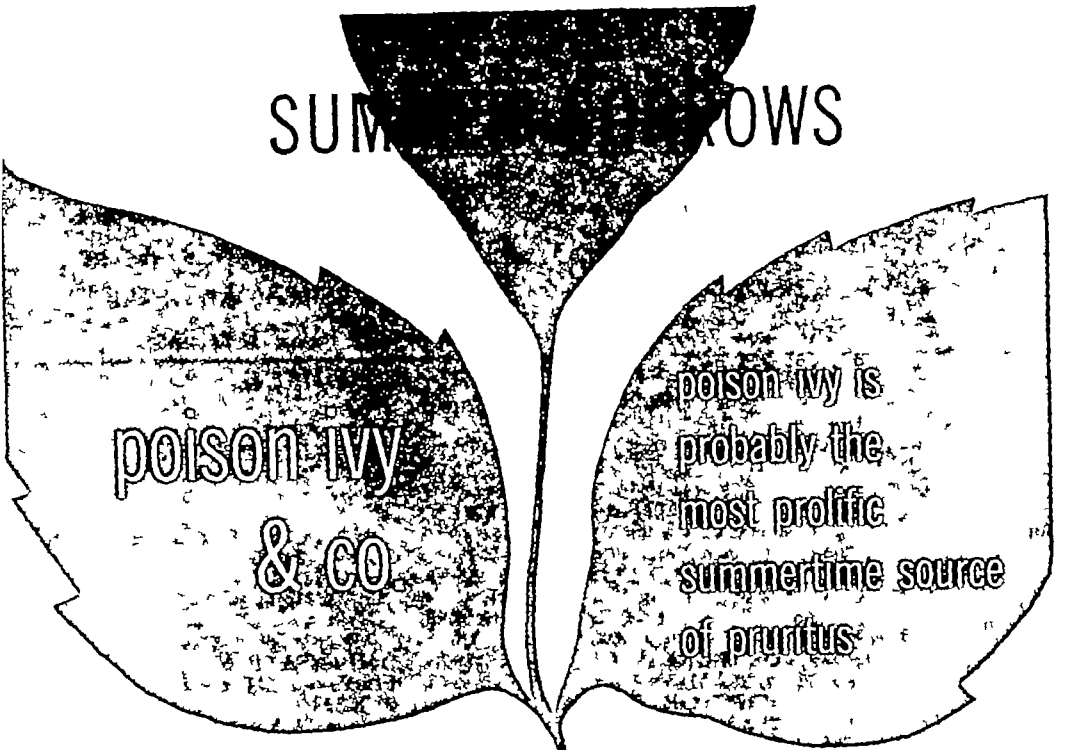
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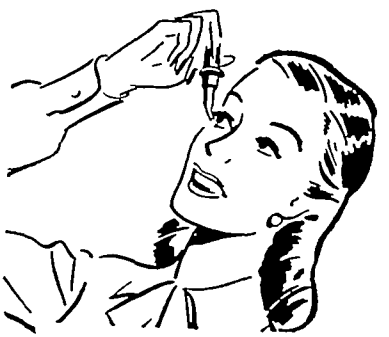
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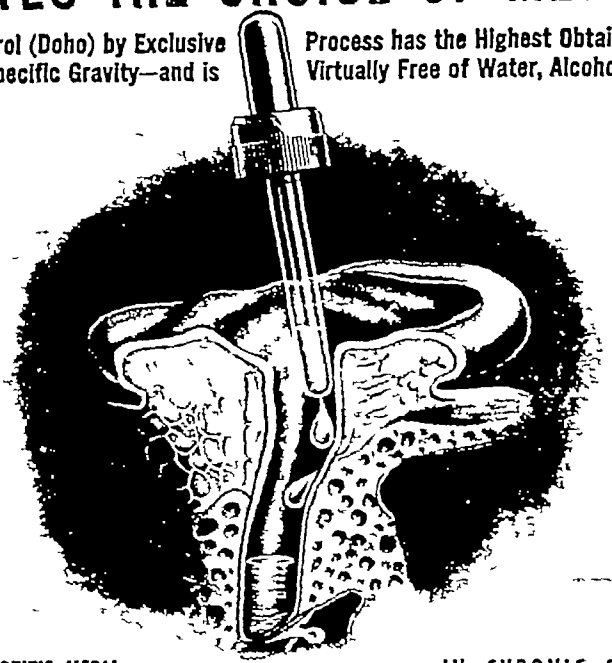
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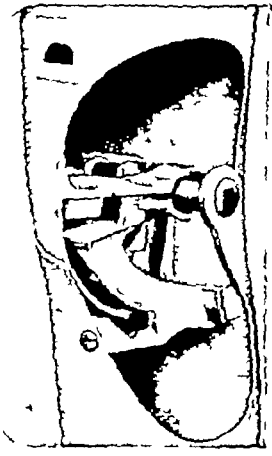
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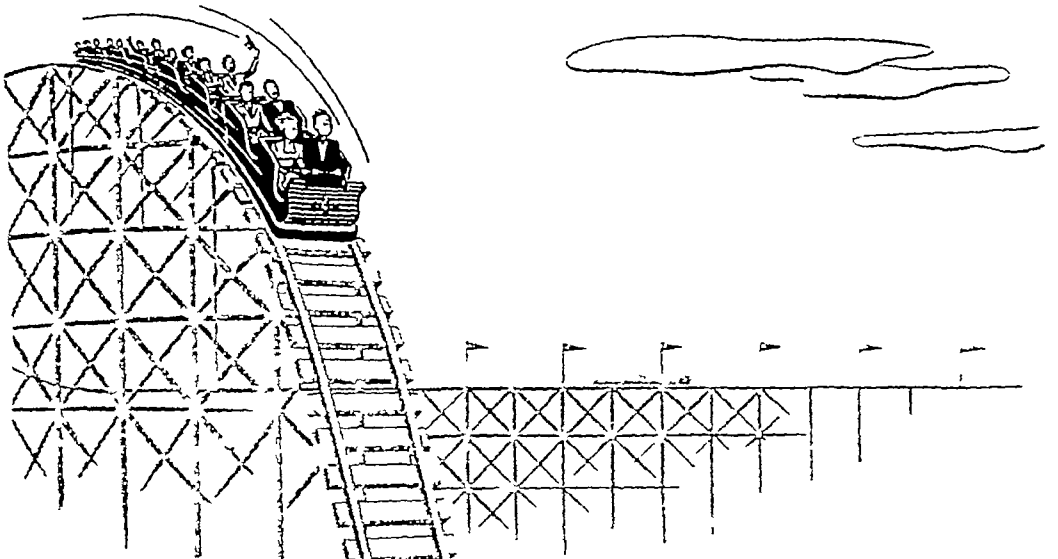
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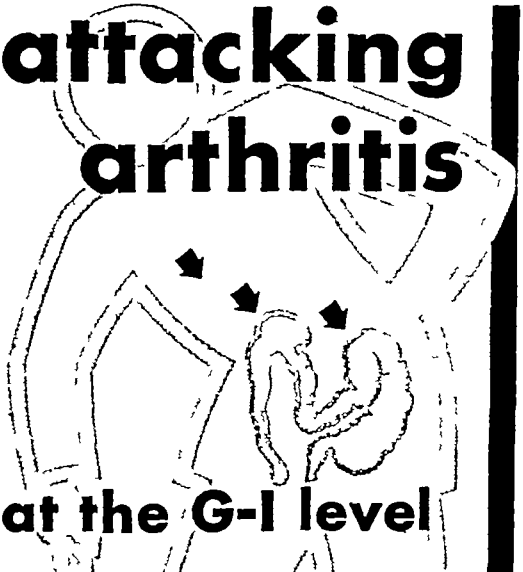
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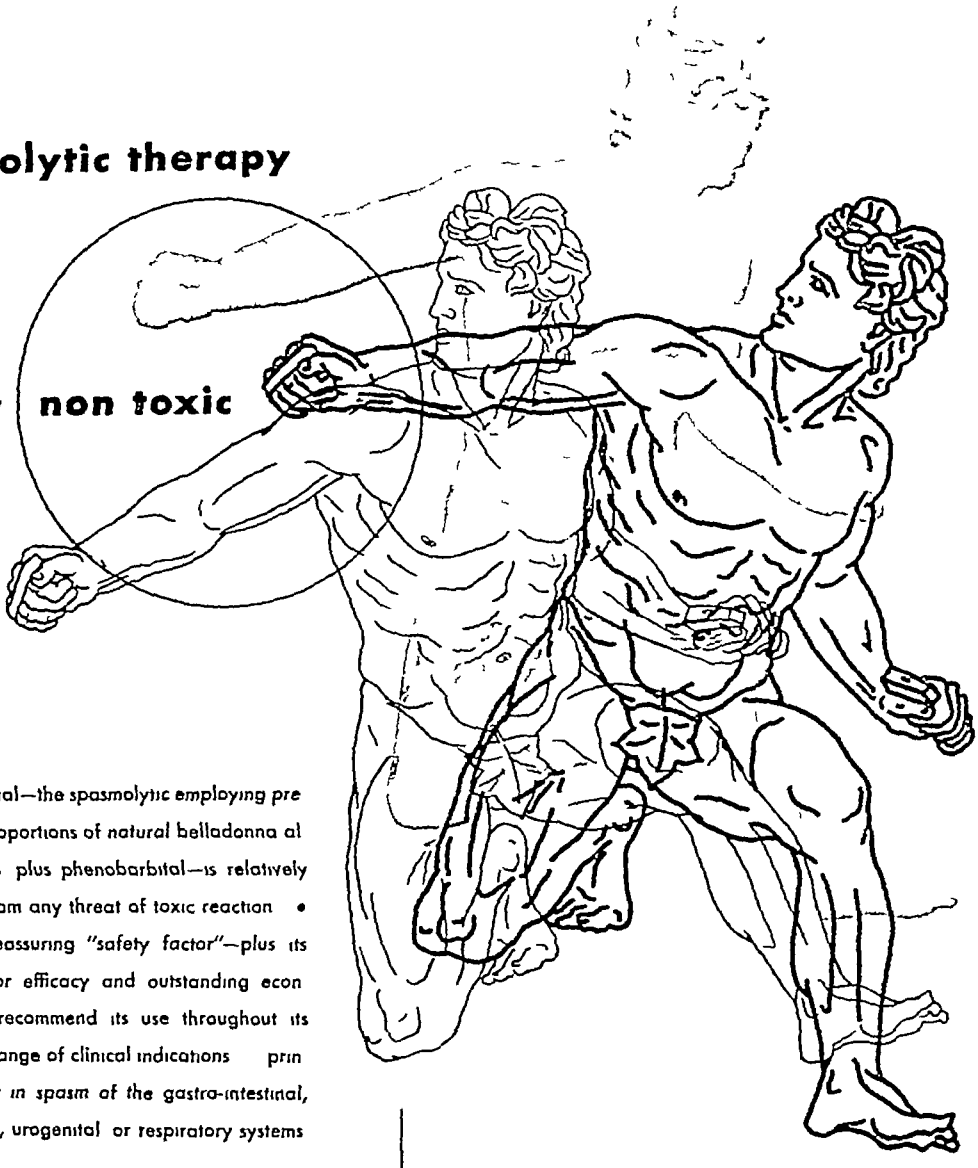
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Phenobarbital (¼ gr.)	16.2 mg

for effective relief of visceral spasm

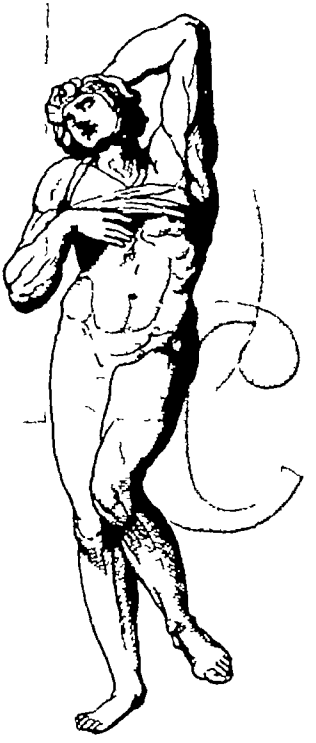
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Ethical Pharmaceuticals of Merit since 1878

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The constant losses of the vitally needed, poorly stored water-soluble B and C vitamins call for decisive replacements bar timidity in therapy • Robins' **Albee with C** provides (in one small capsule) all the B factors in two to fifteen times the minimum daily requirement* —plus vitamin C in eight times the minimum daily requirement • When administering B and C, *give "saturation"* dosage prescribe Robins' Allbee with C—and be sure!

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Findings from the Saratoga Spa records*



CARBON DIOXIDE BATHS in circulatory diseases

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In evaluating the results of this treatment for patients with circulatory disorders there is no ideal test of cardiac function and in these patients the ability to walk or exercise without the production of symptoms is used in judging their clinical gain In addition, in the patients with coronary disease suffering from anginal attacks, it is striking to note the decrease in the frequency and severity of these attacks In some patients they will disappear completely

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The clinical improvement of many patients undergoing treatment, their continued well being after their return home and their desire periodically to return for further treatment all indicate that the carbon dioxide bath has its place in the treatment of disorders of the circulation

As printed in International Clinics, Vol. 1 page 199 March 1937

The SARATOGA SPA

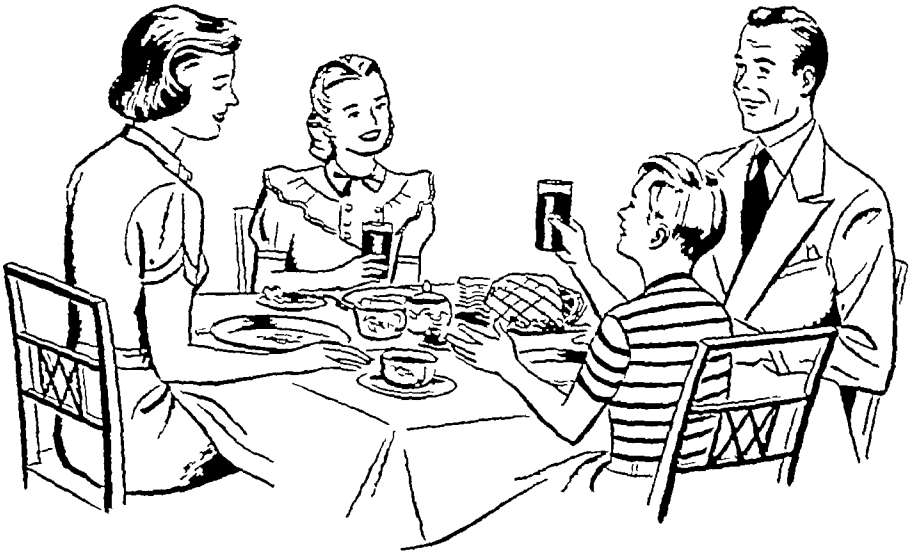
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Listed by the Committee on American Health Resorts of the American Medical Association

THE EMPIRE STATE'S CONTRIBUTION TO THE MEDICAL PROFESSION



WHEN THE DIET

Needs Supplementation

Comparison of the accompanying two columns of nutritional values clearly shows why Ovaltine in milk has been so widely accepted as a highly effective *multiple dietary food supplement*

Column A lists the National Research Council's Recommended Daily Dietary Allowances for each *100 calorie portion* in the diet of a 154 pound man of sedentary occupation Column B lists the amounts of the same nutrients provided by a *100 calorie portion* of Ovaltine in milk

	A N. R. C. Diet	B Ovaltine in Milk*
CALORIES	100	100
CALCIUM	40 mg	166 mg
IRON	0 5 mg	1 8 mg
PHOSPHORUS	60 mg	139 mg
VITAMIN A	208 I.U.	444 I.U.
THIAMINE	0 05 mg	0 17 mg
RIBOFLAVIN	0 08 mg	0 30 mg
NIACIN	0 5 mg	1 0 mg
ASCORBIC ACID	3 1 mg	4 4 mg
VITAMIN D		62 I.U.
PROTEIN	2 9 Gm	4.7 Gm

The easy digestibility and appealing flavor of Ovaltine in milk enhance its value as a dietary supplement Chocolate Flavored Ovaltine is especially liked by children

*Based on average reported values for milk. Three servings of Ovaltine each made of 3½ oz. of Ovaltine and 8 fl oz. of whole milk, the daily dosage recommended for diet supplementation, provide 676 calories.

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Ovaltine

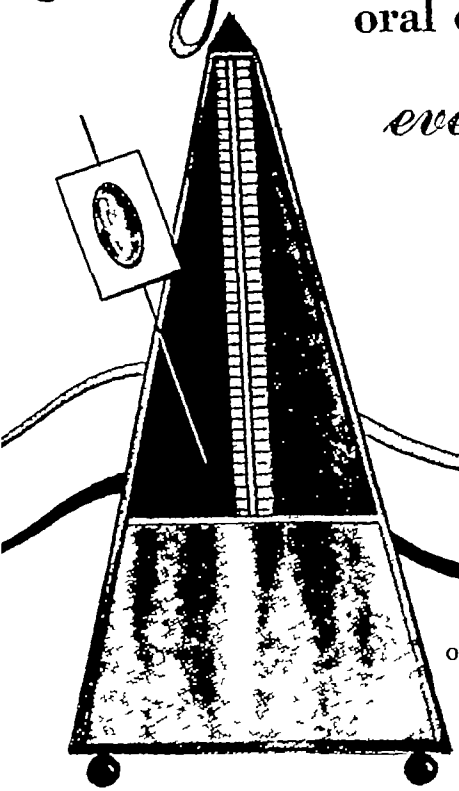
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easily regulated
therapeutic levels



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that

* There is no closer approximation to mother's milk



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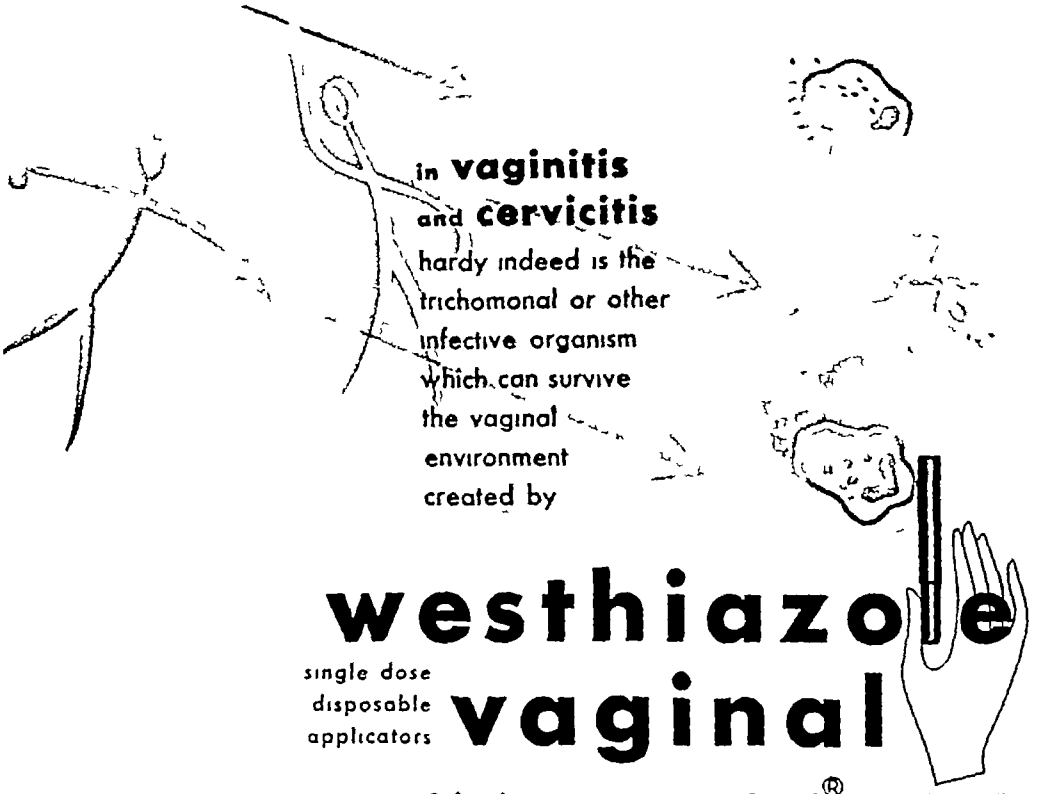
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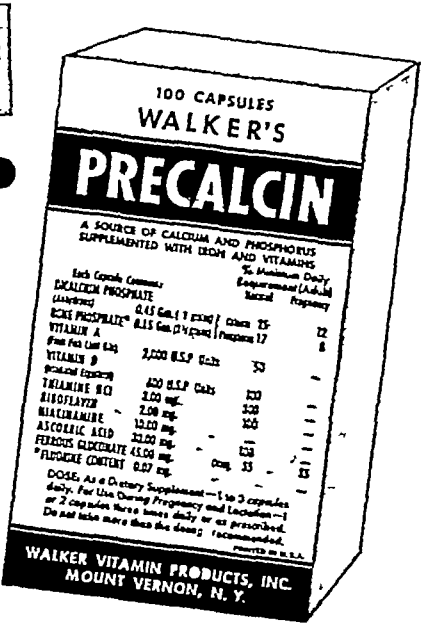
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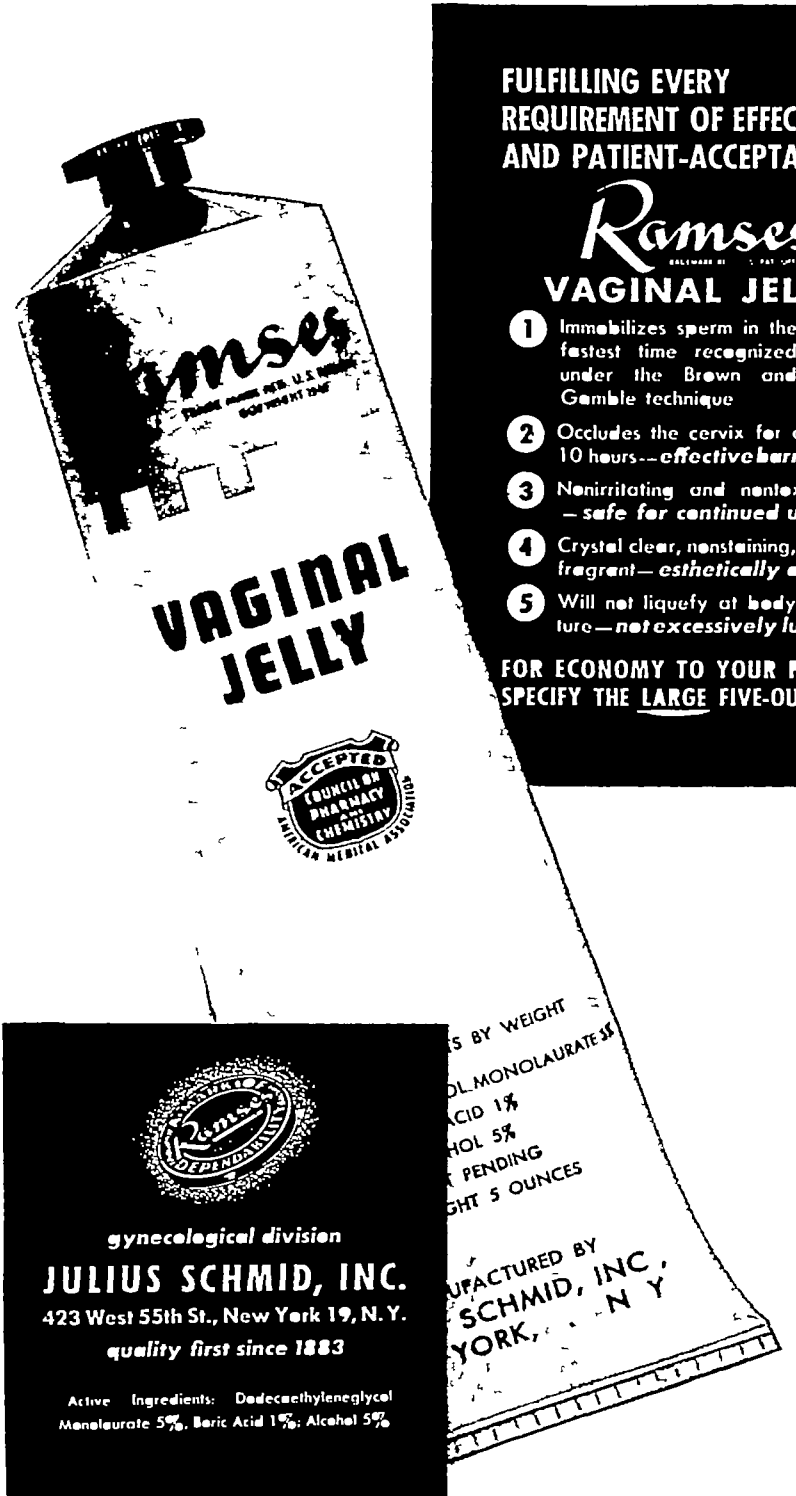
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liver
in
certain
obstetric
complications

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1 Philpott, N W Hendelman, M and Primrose, T Methionine in Obstetrics Am. Jr Obst. & Gynec. 57 125–142 Jan. 1949

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Whenever whiskey is indicated, may we suggest that you recommend that superb blend—Carstairs White Seal whiskey—to *your* patients?



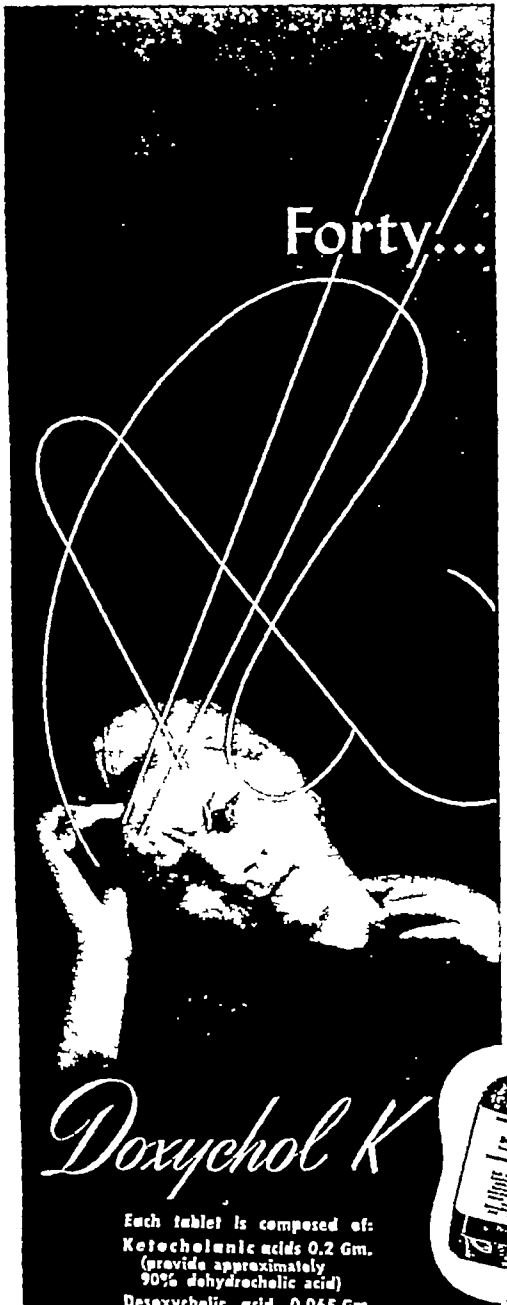
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For the Medical Profession

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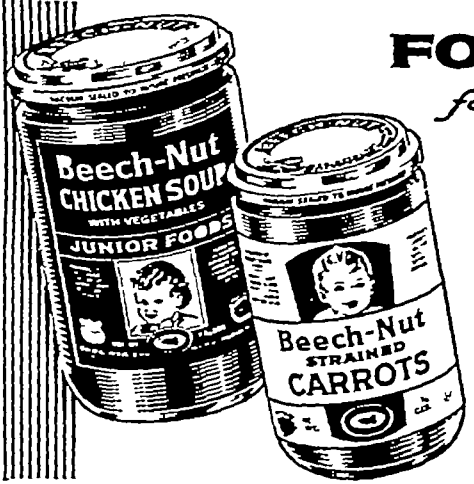
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Editorials

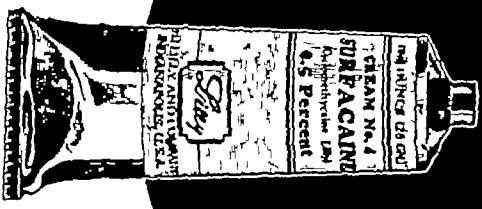
Medicine in the News

The recently terminated meeting of the House of Delegates of the A.M.A. as reported in the press for popular information left much to be desired. Apparently, according to the press, the Association is still "reactionary," lacks even now a program for improved medical care, is unrepresentative of its physician membership, is dilatory and domineering. One ponders these press reports with some concern. If the A.M.A. is really like that, from what source has the admittedly excellent medical service in this nation stemmed? What agency has raised medical education to its present high standards? What agency has been responsible for improved hospitals, for better training of doctors as interns and residents? What agency, then, has been responsible for the suppression of quackery and the elimination of fraudulent medical advertising? Are these things "reactionary," for example? Of no value to the public? Of no consequence to the sick?

We are not informed in the press reports whence these real values emanated. They are so much accepted as a matter of course that in these busy days no one bothers himself to consider that, without these real values, built up over the years patiently and enduringly, better distribution of good medical service on whatever basis would be impossible, because it would not exist. Even so relatively recent a development as voluntary hospital and medical care insurance would be a farce if the hospitals and the doctors had not been able, through long years of preparation, to implement such insurance by the highest attainable skills.

As pointed out by the A.M.A.,

> The voluntary hospital and medical care insurance development in the United States, the trustees declared, "has been the most rapidly growing insurance project in the history of the country.
>
> "The movement," they pointed out, "started slowly. At the end of the first seven years of voluntary hospital insurance under the Blue Cross, only 2,870,000 subscribers were enrolled. Now, after about sixteen years, there are 32,500,000 enrolled in the Blue Cross and over 20,000,000 enrolled in industrial and commercial types of plans, and all three types are continuing their rapid growth.
>
> "For the protection of the public the American Medical Association has aided in the devel-



comfort

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Accident Prevention

While physicians and ancillary services labor unceasingly to improve the means for prevention and treatment of disease, accidental death and destruction in the home, on the streets and highways, in manufacturing plants, in the air, and in the waters continue to take their appalling toll of human life Says the *Illinois Medical Journal*,[1]

> We are reminded daily of the death toll and disability resulting from accidents The 100,000 annual deaths gives it third place on our mortality tables and, were a cancer cure to be found tomorrow, accidents would move overnight into second place This is an ironical situation considering the advancements we have made in the prevention and treatment of disease during the last decade
>
> The injured have received, from a statistical standpoint, too little attention and, by neglecting this aspect, the problem has been minimized. By using fatalities as the measuring stick the loss of time and efficiency produced by temporary and permanent physical disability is overlooked This is evident when it is considered that accidents caused the death of 100,000, but at the same time over ten million individuals were injured
>
> The treatment of injuries is a major part of every physician's practice Many advancements have been made to lower the death rate and minimize disability and deformity Prevention, however, is another matter, and until recently physicians were prone to accept this phase as being out of their realm They readily admit that if a man dies in an automobile mishap he is just as dead as his neighbor who succumbs to pneumonia The youngster who developed paralysis after falling from a ladder fares no better than his playmate with a similar handicap resulting from polio In other words, the outcome is often the same whether we sustain an accident or fall prey to disease The difference lies in the etiology, but there is no reason why the field should be neglected by the medical profession because bacteria, degeneration, or hormones are not involved
>
> Preventing disease is not new to the physician, and there is reason to believe that some of the same procedures can be followed in the prevention of accidents It means a thorough epidemiologic study of these mishaps Preventive measures have been in progress for several years to curtail traffic and industrial accidents The effects are noticeable in spite of statistics to the contrary This pertains particularly to automobile accidents, as the mortality rate has been rather constant for several years even though there has been a marked increase in traffic and passenger miles The worker also has benefited, and studies now show that the number of fatalities among our employed is almost twice as great off the job as on

Off the job accidents present a vastly more serious problem in control than those subject to in-plant regulation Consider the lack of uniformity of motor traffic laws, the still somewhat farcical "examinations" for an individual's fitness for driving, the increasing number of old people who drive, for example, and the reckless individual of any age who drives while under the influence of alcohol

> But the prevention of home accidents has lagged behind, and it is here that epidemiologic studies are needed the most Thirty-five per cent of all deaths from tragedies of this nature occur in or about the house—a figure which would give it ninth place among all causes of death. Furthermore, of the 10,520,000 who were injured in 1947, 5,200,000 were injured at home It has been estimated also that 140,000 of the latter were left with a permanent defect. The majority of these mishaps resulted from falls, burns, suffocation, poisonous gas, poison, and fire arms
>
> The home is in the domain of the physician, and it is here that the "when, where, how, and who" data can be collected to formulate preventive measures We dropped the notion years ago that disease and infection were due to an evil, some misfortune, bad luck, or a mistake of nature, and the same viewpoint must be taken in respect to accidents Less pity and more etiology will go a long way in teaching safety This aspect of life deserves as much attention as vaccination, quarantine, cleanliness, antisepsis, diet, and sleep Who are better qualified than the family physician and community hospital to start a project of this nature?

Occupational motor vehicle accidents are a serious factor also How serious and expensive anyone knows who carries automobile insurance Says the *Statistical Bul-*

[1] Illinois M. J. 95 257 (May) 1949

opment of standards for voluntary insurance plans The Association is conducting a campaign to educate both the public and the profession on the value of voluntary medical care plans

"The Association has recognized the desirability of a national voluntary enrollment agency for the nonprofit plans to facilitate interchange and enrollment of companies with national payrolls It is believed that at least 80,000,000 will be enrolled within a reasonable time in voluntary hospital and medical care plans When we add this number to the 24,000,000 now receiving their medical care in whole or in part from the government, the industrial workers covered by established health plans, and the approximately 5,000,000 indigent, it will be seen that a greater portion of the population will be provided for than by any other means suggested "

Of the establishment of local public health units the trustees said

"Prevention of disease at the source will decrease the need for medical care There are bills now in Congress to extend Federal aid to communities needing it for this purpose We support legislation which will permit aid to local communities

"There is a shortage of qualified public health officials and the public health schools are graduating too few students The reasons for this are largely monetary and political "

The relationship of county and state medical societies to the A M A., as interpreted in at least one editorial, is confusing [1] As a matter of fact, much of the pioneering study and experience with respect to the improvement of good medical service distribution, as any doctor should know, has been initiated and carried out on the local level A little thought on the subject shows why Conditions are so different, real needs so various in this country, that only by local experiment, by trial-and-error procedure can workable methods be arrived at by representatives of the medical profession, agencies of government, and the various sections of the public such as industry, farming, labor, and the like Procedure which is acceptable in one area fails sometimes to produce the same result in another Thus difficulties increase as one goes from county to state level and from there to national considerations

It should not be forgotten also that responsible leadership in farm organizations, in labor groups, and in many industries is a matter of relatively recent development and even now is less than ideal

Government, too, cannot be counted on to exhibit that nonpolitical responsibility and impartiality at all times which is conducive to orderly development of plans for the better distribution of good medical service This is somewhat less disastrous at the local level where the citizens can see what is happening

With these considerations in mind, the reasons for the most successful experimentation at the lower levels becomes clear Such recommendations as the county societies make are carried by their delegates to the state societies and from there if thought practical to the national Association Obviously, what may be entirely workable at any given county level may not work at all or not too well in another environment However, most of the progress originates on the local level within the framework of the *principles* established at the higher policy levels

Perhaps it is not possible, concededly it is difficult for news stories of recent happenings to convey a proper (in the sense of comprehensive) regard for the sequential background of evolutionary development

People and institutions are largely judged by the *last* things they have or have not done, regardless of the context of history, from which their last actions are divorced by journalistic limitations of time, space, and perhaps an unfamiliarity on the part of writers with the background

Certainly, progress is being made by hardworking doctor-delegates and their leaders consistent with the degree of responsibility and liability involved when human lives and health are concerned Such doctors infrequently wear the silk hat, morning coat, and striped pants of formal diplomacy, they make mistakes like other humans, but they do produce the best possible medical service, they *are* the A.M.A. and, given time and public cooperation, will solve the vexing problems in keeping with the medical needs of this industrial day

[1] New York Times June 11 1949

and on trips, sometimes to unfamiliar places If the frightful accident toll can be cut down by education of the public, something will have been gained not only in the preservation of useful lives ut so in a lessening of avoidable de an upon overcrowded hospital and h medical facilities

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Current Editorial Comment

So We Gave Him Penicillin. For many years we have been saddened by seeing medicine outreach itself About fifty years ago, all congenital dislocations of the hip were to be cured by Dr Lorenz's bloodless method The millionaire's daughter that he was brought here to cure, with tremendous fanfare of newspaper publicity, is still as badly off as she ever was Next we had 606 One injection, and syphilis had lost its terrors That wasn't quite true, either Then two men from Australia arrived to tell us how to cure cases of spastic cerebral paralysis by operations on the sympathetic nervous system Hunter is dead Where Royle is we don't know

The sulfa drugs invaded us A wonderful advance, to be sure, but what about their crystallization in the kidneys, suppression of urine, and other complications?

Then came penicillin The antibiotic, the underground warrior against bacteria Suppose you can't make an immediate diagnosis, shoot the patient full of penicillin, and nine times out of ten you'll cure him Perhaps But what happens in the one case that you don't? We quote from a summary of a recent article [1]

> Symptoms were markedly altered by chemotherapy (for this we think should be read the combination of sulfa drugs and penicillin) in the following conditions (1) diverticulitis with cancer, (2) fibrosarcoma, (3) perinephritic abscess, (4) lung abscess, (4) acute cholecystitis, (6) subphrenic and subhepatic abscess, (7) mastoiditis, (8) empyema, and (9) osteomyelitis

The patient enters the hospital, evidently sick and with an alarming fever Well, of course, on a cursory examination, you can't make an exact diagnosis The Attending Surgeon can't be reached, so what can the House Officer or Resident do? Why, give him penicillin, of course Not an overwhelming dose, naturally, because he doesn't dare to, until the diagnosis has been made, but just enough to keep the temperature down and the bugs quiet, until the allwise Attending or the still more unfortunate Consultant comes along How can either of them possibly make a diagnosis? The temperature is down, the bacilli are hibernating All signs of danger are masked

Finally someone says, "How long is this patient going to stay here? No temperature No physical signs Discharge him"

Then, the penicillin having been stopped, he comes back, sick all over again And with the diagnosis, which has never been made, still more difficult because the symptoms have been masked, and the virulence of the bacteria lessened But they are still virulent And they eventually break out And when they do, penicillin is much less effective than it might have been, because it has already been used as birdshot instead of buckshot

Is it too much to ask of our ultra scientific hospitals that they make at least an attempt at diagnosis before they mask every presenting symptom by flooding the patient with an antibiotic? Is it too much to ask that the medical profession should not again be swept under by one of the tidal waves we have already outlined?

Doctors made diagnoses before they had the x-ray, the Wassermann reaction, the electrocardiogram They used their five senses and they used to think Remember?

[1] J.A.M.A. 138 645 (Oct. 30) 1948

letin of the Metropolitan Life Insurance Company,[2]

> Motor vehicle accidents rank among the leading causes of occupational fatalities, although their importance in this connection is frequently lost sight of because of the far larger role they play in nonoccupational injuries The number of men killed on the job by motor vehicles is, however, very considerable It is estimated that about 2,500 men lose their lives in accidents of this kind each year This number is equal to about eight per cent of all motor vehicle fatalities and to nearly 15 per cent of all deaths arising out of or in the course of employment
>
> In order to throw light on the circumstances surrounding occupational motor vehicle accidents, the Metropolitan Life Insurance Company has analyzed the death claim records of 363 men insured in its Industrial Department who died of such mishaps in the three-year period 1946–1948 As might be expected, a much larger proportion of the motor vehicle deaths of occupational origin than of other motor vehicle deaths occur among drivers and other occupants of vehicles The tabulation shows that somewhat more than three fifths of those killed were driving at the time of the accident Occupants of the vehicle other than the driver accounted for an additional one fifth of the total, an almost equal proportion were nonriders It should be noted that this study represents essentially an urban experience, inasmuch as the insured are heavily concentrated in the cities and the larger towns

Vacation hazards to watch include unsafe water and food supplies, ticks, snakes, the black widow spider, and mosquitoes, says the current issue of *Hygeia*, health magazine of the American Medical Association [3]

Look out for poison sumac, as well as poison ivy and oak

Cold foods that may be saved and served from day to day at wayside restaurants can be unsafe Intestinal diseases, including typhoid fever and dysentery, are carried by infected food, water, or milk Boiling of water, pasteurization of milk, and thorough cooking of meat are essential in avoiding these diseases Trichinosis should be guarded against by cooking pork thoroughly When in a strange place and doubtful as to the safety of food or drink always boil or sterilize it

Besides taking much of the fun out of vacation, ticks can transmit Rocky Mountain spotted fever—even in New England, according to Dr Silvers [3] Hardshelled species that can carry it are common throughout the country, and the disease has been reported from coast to coast The ticks attach themselves to human beings tramping through woods or fields Don't remove a tick with bare hands—use a needle or cotton saturated with alcohol, lighter fluid, or kerosene Advance protection by spotted fever vaccine is available.

People who vacation in country where the copperhead, rattler, or water moccasin lurk may need a special type of first aid kit containing antivenin A bite from a black widow spider, while not often fatal, can be extremely disabling This shiny "shoe button" spider may be recognized by red markings, usually including an hourglass on the under side Mosquitoes still carry malaria in a few spots in the southern United States

Those persons who are extremely susceptible to poison ivy, oak, or sumac can be desensitized by injections prior to vacation, Dr Silvers says Immediate thorough washing with soap and water and rinsing with a solution of ordinary baking soda will reduce and often prevent reaction to these plants

A little "brushing up" on first aid, especially on artificial respiration, may enable vacationists to save their own or friends' lives, he points out But, in an emergency, don't try to "play doctor" Use reliable first aid technics and call a doctor of medicine as quickly as possible

A good idea, too, is to consult a doctor well in advance of a vacation to be taken in out-of-the-way places He can give instruction in use of first aid equipment and advise whether immunization against disease hazards such as typhoid and tetanus is needed [3]

The physician has indeed an important role to play in accident prevention of all kinds He is in the most intimate contact with those who are going to vacation camps

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[2] May 1949 page 7
[3] June, 1949 page 390

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DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health
William A Brumfield, Jr, M D, Editor

BCG Vaccination Program in New York State

The development of a particular strain of bovine tubercle bacilli which had lost virulence was announced in 1908 by Calmette and Guerin Twelve years later, they reported that the culture of this strain was harmless to man Vaccine produced from this strain was used and became referred to as BCG Subsequent studies in vaccinated groups have reaffirmed the safety of the vaccine and produced evidence of significantly lowered morbidity and mortality rates for varying periods of time

The possibilities of incorporating this method of vaccination into the tuberculosis control program of the New York State Department of Health were explored carefully by the Advisory Committee on BCG Vaccination to the Medical Society of the State of New York and the New York State Department of Health It was decided to recommend the use of this vaccine in limited groups of the population A special laboratory was equipped within the Division of Laboratories and Research of the New York State Department of Health, and production of vaccine was begun

The use of BCG vaccine is recommended in groups that have not received a tuberculous infection (as shown by no reaction to tuberculin test) but are at increased risk of such infection These groups include those (1) with occupational exposure, such as nurses, medical students, and hospital personnel, (2) with high tuberculosis morbidity and mortality rates, and (3) with a known or potential exposure to tuberculosis, as in the household of tuberculous persons returning from a hospital stay BCG vaccine is not to be administered indiscriminately, because it can be of benefit only to those persons who have not been infected by the tubercle bacillus BCG vaccine has no value in the treatment of tuberculous disease

For the present, BCG vaccine is distributed on request to (1) local full-time health departments, (2) medical colleges and teaching hospitals, (3) superintendents of public tuberculosis hospitals and directors of tuberculosis clinics, and (4) additional hospitals and institutions with specially trained physicians who have been designated by the State Commissioner of Health to administer BCG vaccine

The State Department of Health is prepared to give consultation and advisory service to local agencies, but the details of the program are carried out by local personnel and facilities Assistance may be obtained in planning a program locally and arrangements may be made for instruction and demonstration in vaccination procedures

Local agencies participating in BCG vaccination activities include local full-time health departments, medical schools, nurses training schools, general hospitals, hospitals for the tuberculous, and tuberculosis clinics.

Data concerning vaccinated persons are assembled in the State Department of Health With the accumulation of information concerning observations following vaccination it will be possible to add to the knowledge available of the effectiveness of the vaccine and to learn more of the duration of its protective benefits

As of December 31, 1948, BCG vaccination programs have been started in seven medical schools in the State Twenty-one schools of nursing have begun offering BCG vaccination to their student nurse groups, and eight others have begun vaccination in those students affiliating with hospitals for the care of tuberculous patients Other groups included are contacts, hospital personnel, and other miscellaneous groups As part of a study to determine the practicability of use of vaccine in State mental hospitals and State schools, several groups of patients and employes have been vaccinated

There were 3,553 persons in various categories for whom records of BCG vaccination were available on December 31, 1948

The use of this vaccine does not take the place of or alter any of the long recognized methods of controlling tuberculosis, such as case-finding, medical care, and segregation However, BCG vaccination may play an increasingly important part in the total tuberculosis program

Scientific Articles

Symposium

PRECANCEROUS AND CANCEROUS DERMATOSES OF THE SKIN

Precancerous Lesions of the Skin

GEORGE C ANDREWS, M D , and CHARLES F POST, M D , New York City

(From the Department of Dermatology, College of Physicians and Surgeons, Columbia University)

WITHIN recent years several excellent treatises have appeared concerning precancerous lesions and diseases of the skin [1–3] A simple reiteration of this material would prove superfluous, particularly when such a presentation is being made for members of the profession who are constantly dealing with these problems An attempt will be made, therefore, to emphasize recent contributions and newer forms of treatment

While the term precancerosis and the concept of the precancerous dermatoses have been attacked from many quarters, it would seem advisable to preserve a high degree of suspicion of possible malignancy in certain cutaneous diseases It is within our province to practice prevention and prophylaxis against malignancy in the known precancerous conditions In no other field of medicine can this be so readily accomplished, for the entire integument is subject to careful inspection by the physician and patient Cancer education will serve to reduce the incidence of cutaneous carcinomata caused by occupation or by chronic ulcers, cysts, and infected sinuses, where surgical measures and the administration of the sulfonamides and the antibiotics may bring about early removal of these potential sources of chronic irritation. With the increasing amount of cancer education the public is receiving, the responsibility of dermatologists is greatly increased

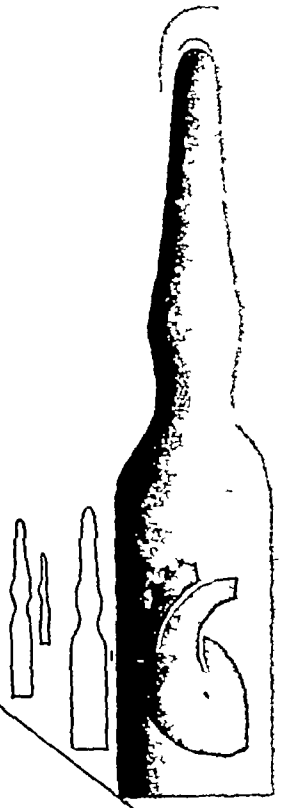
Actinic Dermatitis

Nowhere is this so well illustrated as in the prevention of cancer of the skin caused by exposure to excessive amounts of sunlight over a prolonged period Piers, in presenting data on sunlight and skin cancer in Kenya Colony, Africa, has divided the cutaneous changes associated with chronic actinic exposure into three types, (1) permanent suntan, composed mainly of dark-haired and brunette-skinned individuals in which group skin cancer seldom occurs, (2) farmer's skin with diffuse cutaneous changes in which the skin is yellow or sallow, thick and tough or atrophic, with coarsening of the skin and deepening of the lines and folds of the face and back of the neck, and (3) chronic solar dermatitis, in which there are epidermal lesions (desquamation, keratoses, permanent freckling, atrophy, and telangiectasia) superimposed on the changes seen in farmer's skin [4] Piers goes on to report the frequency on exposed parts of the body, chiefly the face and neck He concludes that " sunlight is the paramount factor in the causation of cutaneous carcinoma in Kenya " Surely, except for unnatural hazards such as x-ray exposure, some occupational exposure, and arsenical medication, the same conclusions apply throughout the United States

If, for any reason, we are called upon to treat blond, fair-skinned individuals, who have a tendency to premature aging of the skin, or those persons whose occupation submits them to the hazard of continued actinic exposure, we instruct these persons in the care of their skin These measures consist of (1) maintenance of good general health with sufficient food and rest, (2) careful hygiene of the skin and in some cases the application of skin lubricants, (3) protection against sunlight as much as possible by means of caps and hats, long sleeves and gloves, and occasionally sun-screen pastes or lotion, (4) warning against excessive sun bathing for any

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Dermatology and Syphilology May 5 1949

a natural preference



A revealing test[1] recently was conducted on a group of cardiac patients in congestive failure, treated with intramuscular injections of different mercurial diuretics, the identities of which were unknown at the time to both patients and observers. The results showed that the majority clearly evinced a decided—and natural—preference for a diuretic agent that caused the least pain and discomfort—

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Similarly, Gold *et al*[2] prefer MERCUHYDRIN in their routine treatment of the failing heart because "it is less irritant to the muscle and is less apt to produce pain"

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PACKAGING: MERCUHYDRIN (meralluride sodium solution) is available in 1 cc. and 2 cc. ampuls.

BIBLIOGRAPHY: (1) Modell, W Gold, H. and Clarke D A. J Pharmacol. & Exper Therap. 84:284, 1945 (2) Gold H. and others Am. J Med. 3:665 1947 (3) New and Nonofficial Remedies Philadelphia J B Lippincott Co. 194- p 294. (4) Finkelstein, M. B and Smyth, C. J J Mich. State M. Soc. 45:1618 1946. (5) Reaser P B and Burch G E. Proc. Soc. Exper Biol. & Med. 63:43 1946 (6) Griggs, D E. and Johns V J Influence of mercurial diuretics on sodium excretion, to be published.

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effect on the chronic eruptions caused by arsenic The keratoses and multiple epithelioma caused by arsenic render BAL, which is a safe drug, worthy of trial in most of the chronic arsenical dermatoses in order to reduce the body content of the offending element

Radiodermatitis

Shafer and her associates have recently reviewed the records of 160 patients with late roentgen injuries observed during fifteen years up to 1947 [9] They found that 39 cases (24 3 per cent) occurred after roentgen ray therapy for nondermatologic conditions, chiefly carcinoma of internal origin. Another 20 patients (12 5 per cent) exhibited radiodermatitis from fluoroscopy or occupational radiodermatitis (physicians, dentists, physicists, x-ray technicians, and veterinarians), and finally, 16 patients (10 0 per cent) showed radiodermatitis that followed treatment for hypertrichosis Their figures indicate that chronic radiodermatitis from the treatment of dermatologic conditions is rare, having an incidence of approximately 1 in 14,000 cases, according to records from the Presbyterian Hospital during the past fifteen years, and 1 in 600 from private dermatologic practice where many patients with this condition are referred for consultation and treatment

Careful analysis of Shafer's charts shows that of the 85 patients with chronic radiodermatitis who were treated for dermatologic disorders, 59 (69 4 per cent) were treated for conditions in which there is no excuse for chronic radiodermatitis, chiefly because newer methods of treatment have rendered x-ray treatment obsolete (Table 1)

TABLE 1.—CONDITIONS TREATED WITH X-RAY FROM WHICH 59 PATIENTS DEVELOPED RADIODERMATITIS

Diagnosis	Number of Cases
Acne or rosacea	25
Sycosis vulgaris	8
Hand eruptions	7
Allergic eczema	5
Dermatophytosis	3
Psoriasis	3
Lupus vulgaris	2
Pruritus vulvae	2
Lupus erythematosus	1
Furuncle	1
Onychomycosis	1
Leukoplakia	1
	59

The remaining 26 cases reviewed by Shafer were treated for hemangiomata (nine), plantar warts (five), keloids (four), "undiagnosed dermatoses" and "chronic dermatitis" (five), tinea capitis (two), and nevus (one)

While Shafer and her associates presented their material with particular reference to exit dose as being instrumental as a cause of radiodermatitis these statistics deserve further comment in view of recent developments in treatment

Where formerly x-ray therapy was considered an essential part of the treatment of acne vulgaris, since the work of Rosenthal and Kurzrok, Lawrence and Werthessen, Hamilton, Barber, and others, it now appears that the administration of female sex hormone to male and female patients with acne, in addition to the other measures usually employed, and the administration of sulfadiazine or sulfapyridine and penicillin in pustular cases will render the use of x-ray seldom necessary [10–13] At an earlier date, with the introduction of chemotherapeutic and antibiotic drugs for local and systemic use, the use of x-ray for sycosis vulgaris and furuncles became outmoded

Extensive clinical trial of undecylenic acid in the treatment of psoriasis as suggested by Perlman is being carried out [14] Preliminary results are encouraging Although cancer rarely supervenes in patches of psoriasis, this disease has long been subject to hazardous treatment by means of x-ray, arsenic, and long-continued application of tar and ultraviolet light exposures Any safe means of therapy will reduce the hazards of treatment

The administration of calciferol in lupus vulgaris is clearing up many severe cases of this disease which is one of the recognized precancerous dermatoses

In lupus erythematosus, another precancerous dermatosis, the cautious use of gold sodium thiosulfate and bismuth subsalicylate injections is constantly showing its worth More recently, the introduction of large doses of synthetic alpha-tocopherol is proving useful This latter medication is usually prescribed by us as Ephynal Acetate in 300- to 400-mg doses daily * This drug has given fewer side-reactions than the naturally prepared, mixed tocopherols Treatment along these lines, rather than with x-ray, radium, and caustic potash, should lower the incidence of epithelioma in lupus erythematosus However, Ryan has pointed out that over a hundred cases of epithelioma in lupus erythematosus have been reported in which none of the above-mentioned physical agents had been used in treatment [15]

In allergic eczema, the administration of antihistamine drugs orally and locally bring a great measure of relief while causative factors are being tracked down, at the same time reducing the need for radiotherapy in eczema The introduction of ammoniacal silver nitrate for the treatment of onychomycosis shows considerable promise and may obviate the need for x-ray treatment in these cases [16]

* Hoffmann La Roche Inc Nutley New Jersey

reason, and (5) prompt examination of any suspicious skin lesions Surely, no attempt is being made to belittle or underestimate the value of sunlight in moderate and reasonable amounts, and, indeed, there are many individuals to whom no harm will come from actinic exposure because of influences of heredity, skin color, sex, and constitutional disposition

The responsibility of dermatologists and other medical men employing ultraviolet light and roentgen rays in treatment is still greater Recently, Coblentz cited the work of Rusch, Kline, and Baumann in which white mice were exposed to prolonged and excessive doses of ultraviolet irradiation [5] The amounts of radiation used could not be tolerated by human skin Yet, after exposures for one hundred thirty-five days, 50 per cent of the mice developed skin tumors By doubling the number of days of exposure, the incidence was increased to 70 per cent These results were obtained only in the so-called "mid-ultraviolet range" (wavelengths of 2,967, 3,024, and 3,132 angstroms), and when cold quartz mercury arc radiation was used, with the greatest amount of energy produced at 2,537 angstroms, no tumors were produced These experiments cannot, however, be made to apply directly to human subjects Blum points out another discrepancy in that epitheliomas in human beings caused by actinic rays are almost entirely limited to the epidermis, whereas most of the tumors produced in mice are in the dermis [6] Coblentz goes on to state that, for home use, the employment of the cold quartz type of ultraviolet light is impractical because these shorter rays are most potent in producing photophthalmia Then he issues a warning that in spite of the lack of any reports showing that "home lamps" have been the cause of cutaneous neoplasms their indiscriminate use, along with excessive sunbathing, offers a potential hazard. The same facts must be borne in mind by the physician who is using ultraviolet light therapeutically

Seborrheic and Senile Keratoses

A word should be devoted to the management of seborrheic and senile keratoses Both types occur, once again, among those persons who have had prolonged actinic exposure, but these keratoses are also seen in patients in which actinic exposure does not seem to be an important factor This is particularly true of seborrheic keratoses which occur in almost as great numbers on the body as well as on the backs of the hands, and face and neck, which are the most frequent sites for senile keratoses

Seborrheic keratoses are raised, light or dark-brown or black lesions with a greasy surface While the number of such lesions is high, the incidence of malignant transformation, which is usually basal cell in character, is extremely low Statistics on this point are difficult to obtain. Suspicion should be directed, however, particularly to those seborrheic keratoses which show infection or are subject to chronic irritation. Recently, Sachs *et al* have distinguished between a seborrheic keratosis and a seborrheic verruca [7] They show evidence that the former evolves into the latter and, while doing so, undergoes clinical and histologic changes, viz, the lesion becomes larger, darker in color, more indurated, and may exhibit dilated, plugged follicular orifices Histologically, the lesion becomes thicker and more acanthotic with a coarse epithelial network in which islands of connective tissue and horn cysts are seen The inflammatory reaction in the cutis is greater They further express the belief, and logically so, that malignant transformation is more common in the seborrheic verruca than in the seborrheic keratosis They state that the basal cell epithelioma and the mixed cell epithelioma are the commonest conditions developing from such seborrheic verruca, with prickle cell and anaplastic epithelioma being less common.

The senile keratoses, more frequently seen on the exposed parts of the body, are discrete, flat, or slightly elevated, verrucous or keratotic, usually scaly, grayish-brown or black growths A little erythematous halo may surround the lesion Malignant transformation, usually into squamous-cell epithelioma, is not uncommon and may be as high as 25 per cent, according to Montgomery and Dorffel [8] Basal-cell epithelioma arises less often from this type of lesion Sachs *et al* recognize clinical and histologic differences between the flat and "papillose" or greatly hyperkeratotic senile keratosis and use the old term senile verruca with its meaning restricted to those keratoses that develop from papillose senile keratoses showing greater potentialities of becoming malignant [7] They state that, histologically, in a senile verruca, when the acanthosis is so great that the rete pegs are obliterated so that the epidermis presents a smooth margin, the proper designation is senile acanthoma They believe that, in both the senile verruca and acanthoma, anaplastic and prickle-cell epithelomata not infrequently arise In our opinion, these observations are correct and concisely presented

Arsenical Keratoses

Although it is generally conceded that BAL (British anti-lewisite) is most effective in acute dermatoses caused by the arsenicals, in several cases that have come to our attention BAL seems to have shown a slight but nevertheless salutory

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ROUTINE MANAGEMENT OF CARCINOMA OF THE SKIN AND LIPS

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AS POINTED out in the discussion of problem cases presented before this section two years ago, the treatment of cancer of the skin and adjacent mucous membranes must be individualized to cope with the peculiar features of each malignant lesion [1] A high percentage of cures cannot be obtained by the application of a routine, rule-of-thumb treatment scheme utilizing the same modality in the same way in any and all lesions regardless of type, size, location, or other complicating features On the other hand, in some situations any one of several different methods may be expected to give equally good results

Bearing such limitations in mind, it is possible, however, with the use of established general principles and accumulated statistical experience to formulate more or less broad outlines of treatment methods that can be successfully applied to specific types of lesions in a fair majority of instances The variety and flexibility of such treatment schemes are determined by the physical facilities at hand and by the personal ability of the therapist Obviously, there will be considerable variation in the routines employed and consequently in the scope of therapy available in different offices and institutions

The following is a general outline of the treatment methods we are employing at the present time

Radiation

The majority of previously untreated malignant lesions of the skin and lips are treated with roentgen rays Moderate low voltage with a peak of 100 kilovolts (half value layer 1 5 mm aluminum) is used for most lesions of moderate thickness A target skin distance of 18 cm. is employed In very small lesions (requiring a field size of 1 5 cm diameter or less) a single dose of 3,500 r is sometimes used * However, in most instances and in all lesions requiring a field size of over 1 5 cm. diameter, a protracted divided dose scheme is employed This usually consists of a total of 4,000 to 5,000 r administered over an eight- to twelve-day period. The total surface dose is selected on the basis of that required to give an adequate dose at the furthest depth of the lesion The fractionating of the dose is determined by the surface area of the field size required. The larger the area to be treated, the smaller and more numerous the fraction doses Areas with a diameter of 3 5 cm or less are usually treated in four to five sessions of equally divided doses Fields larger than 10 square centimeters are treated with daily fractions

Lip lesions in which some depth of penetration must always be assumed, even though not readily apparent or palpable, are routinely given a surface dose total of 5,000 r The fractionation is determined by the field size

This dosage scheme in the intermediate voltage range is essentially the same as that now being used by others The time-dose relationship is comparable to that employed by Strandquist in Europe and Hale and Holmes in this country [2 3]

Higher voltages with a peak of 140 to 200 kilovolts (half value layer 0 4 mm. copper to 0 9 mm copper) are used for very thick and bulky lesions The total surface dose given to these ranges from 4,500 to 6,000 r The increments are usually administered daily for ten to twenty days or more as determined by the size of the area

Very low voltage (45 kilovolts, half value layer 0 3 mm. aluminum), short distance (2 0 cm.) radiation with the Phillips tube is used in some situations We have found this feebly

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* All figures for doses include backscatter

In the treatment of some hemangiomata, plantar warts, keloids, and tinea capitis, x-ray and radium still have a definite place Even in tinea capitis, however, local treatment with new fungicidal preparations is yielding a high percentage of cures, and plantar warts are more and more being treated by desiccation, acids, and other effective measures Radiodermatitis following the treatment of plantar warts, keloids, and hemangiomata is fortunately rare and does not occur with dosage and technic now in standard use by recognized dermatologists who have been thoroughly trained not to treat those lesions that have been previously irradiated by others without ascertaining the doses previously administered

Shafer has not included cases of radiodermatitis following the treatment of epithelioma by x-rays or radium [9] Cutaneous reactions are generally less violent than they used to be This is one of the advantages of fractionization and the divided-dose technic now used We have never seen roentgen epithelioma arising in the atrophic scars caused by such reactions, although theoretically such manifestations are within the realm of possibility Our clinical experience has been so extensive that, if they ever occur, they must be so scarce as to be of no practical importance

During the next decade we may expect that, on the whole, the need for x-ray treatment will be much less than it has been in the past, and radiodermatitis will become scarcer and scarcer Our diplomates of the American Board of Dermatology will not cause radiodermatitis However, we must remember from the statistics of Shafer *et al* that almost half of the cases of chronic radiodermatitis are caused by nondermatologists

Recently, the senior author of this paper reviewed the experimental work of Cowdry, Rhoads, and Martin and Koop, all of which seemed to bear out the fact that, " cells in which cancer develop are sick cells They are sick from nutritional deficiencies and disturbed metabolic activities for a considerable time before malignant transformation develops "[17–20] For example, Cowdry studied epidermal carcinogenesis in mice by applying methylcholanthrene to the skin He noted that before cancer develops the epidermis becomes hyperplastic and "a new precancerous epidermal equilibrium" is attained By chemical and biochemical analysis, a decrease in total lipid, calcium, iron, and biotin have been shown There is a late increase in cytochrome oxidase activity, and there is slightly more magnesium, pyridoxine, and water Cowdry states, "It is safe to say that the conditions of cell life of the cellular population as a whole have been fundamentally changed The cells must face deprivations and hardships to which epidermal cells are not normally subjected As is to be anticipated in making the necessary adjustments, the cells change They swell and become larger in cytoplasmic and nuclear volume, but the nucleocytoplasmic ratio declines We think, and I may be a little visionary, that there is a possibility that multiple deficiencies are factors in making the conditions of cell life so arduous that mutations result "[17] Rhoads had previously demonstrated protection against the carcinogenic effect on the liver of ingested butter yellow in experimental animals by dietary constituents of which one is riboflavin [18] Martin and Koop also reported on the relationship of precancerous lesions of the mouth to avitaminosis B and the response of these lesions to yeast, liver extracts, and similar substances [19]

In 1946, Amersbach, Walter, and Sperti reviewed the previous work on tumor respiration and reported on their own series of basal cell epitheliomata treated with local injections of spleen and liver extracts [21] Of 21 patients treated, 14 were apparently cured, one failed to respond, and six were still under treatment at the time of writing It seemed logical, therefore, to treat severe chronic radiodermatitis in which the development of cancer had occurred or seemed imminent with intramuscular injections of crude liver extract in the hope that it would prevent the development of epitheliomas Gratifying results have been obtained during the last three years in several cases Patients who were for several years developing four to eight epitheliomas every three or four months have had no epitheliomas in a couple of years These have been reported by the senior author recently It is hoped that others may try this form of treatment "Because of the severity of the disease and the great problem it offers to the dermatologist and to the surgeon, it is hoped that some constructive medicinal therapy may decrease the need for more radical surgical measures "[20]

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Our own experience with this method is too limited for evaluation as it has been restricted to a few selected cases Because of the time and personnel required by this procedure it does not easily lend itself to employment as a routine where the case volume is heavy

Follow-up Routine

Although histologic cell type is not a determining factor in the choice of treatment for basal and squamous cell cancers, the metastasizing potential of the latter justifies a closer and longer follow-up schedule

Following treatment, patients with basal-cell epitheliomas are seen for a checkup in three months, again in three months, and then every six months until a three-year observation period has been completed Lesions larger than average and those which have constituted a therapeutic problem where the probability of recurrence is expected to be greater than usual necessarily require more frequent inspection

Following the completion of treatment of a squamous-cell (or intermediate type) epithelioma of the skin or lips, the patient is seen in four weeks, then every two months for the first year During the second year, visits are spaced at three-month intervals, and after the second year the treated site and its lymph gland area are inspected every six months until a five-year observation period has been completed

The treatment of metastases from cutaneous and lip cancer is not included in this discussion because it is felt that such presents an entirely separate problem which does not come within the scope of dermatologic therapy Likewise, the management of malignant melanoma has been omitted from this presentation

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EARLY RECOGNITION OF POSSIBLY DANGEROUS NEVI (MOLES) AND THE BEST PROCEDURE TO AVOID DEVELOPMENT OF MALIGNANT MELANOMAS (NEVOCARCINOMA)

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IN THE original draft of this paper, quoting the statement of Pollitzer, made over thirty years ago, that "a pigmented nevus should be left in peace or else radically, surgically excised," I felt that, in essential knowledge, we had gained but little, even in the past fifty years [1] We may be sure that Pollitzer was not the first to emphasize this vital point which, if invariably followed as a "rule," would keep us out of most of our difficulties, and every recent cancer warning would not have to emphasize this statement again and again However, after reading the recent editorial in the *Journal of the American Medical Association*, entitled "Cancerous Melanoma" and the article reprinted in *New York Medicine* entitled "Melanoma," originally published in the *Texas Cancer Bulletin*, I believe the dermatologists, at least, have advanced their knowledge to a remarkable degree that becomes apparent only when contrasted to the abysmal ignorance displayed by the authors of these articles on cancer propaganda As they are both printed in medical journals, one would presume that they were written for the benefit of the physician primarily and hence one would presume that some degree of accuracy should be expected Instead, lay terminology is used—I refer particularly to the term "mole" which should only be employed by laymen or possibly in articles for lay consumption as it has no scientific or medical meaning whatever, anymore than saying the growth started as a "lump" or, to mention another inaccuracy, "papilloma" which is used by all surgeons as a common preoperative diagnosis for any elevation of the skin I particularly wish to challenge the statement of the *Texas Cancer Bulletin* that "there is no way to predict which benign moles are destined to develop into melanomas " This point has been settled many years ago, and it is well known that all malignant melanomas or nevocarcinomas develop from the pigmented lesion that has been described as a junction nevus because of its

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penetrating radiation especially useful in very small superficial epitheliomas in locations where it is desirable that the underlying structures receive a minimum of radiation Most frequently such areas are the external ear, tip of the nose, the scalp, and the dorsum of the hand In this newer field of soft radiation, dosage schemes have been less well explored than with the more conventional qualities We have successfully treated a considerable number of lesions with a single dose of 5,000 to 6,000 r This dose is quite similar to that employed by Howes and Camiel [4] It is to be remembered, of course, that this dose is given to a very small area, since the maximum field obtainable with the tube at 2 cm distance is 2 5 cm diameter Studies are now under way to investigate the further potential scope of the usefulness of this type of radiation The recent introduction of beryllium window tubes for use in ordinary x-ray apparatus will allow for a much wider usage of softer radiation

The absolute necessity for precision in outlining the field to be irradiated, in selecting the appropriate quality and quantity of irradiation to be delivered, and in the actual setup and administration of each treatment is to be emphasized These are the functions of the physician therapist and are not to be delegated to technicians, nurses, etc Outlining the field for radiation is no less important than deciding on dosage One of the most frequent causes of recurrences is failure to consider the fullest potential peripheral extent of the tumor and to realize that microscopic invasion may be present under normal skin at a considerable distance beyond the visible limits of the lesion Although tables for arbitrary margins in relation to field size have been worked out and to a limited extent are useful, the proper appraisal of the field requires long experience in all types of lesions and locations Tissue dose and depth dose charts for the type of apparatus used are prerequisite in selecting the appropriate quality and in computing the optimum dose to be delivered to each lesion This is especially important in treating the larger areas where steering between overdosage and underdosage is frequently extremely difficult

Electrosurgery

Electrosurgery in the form of electrocoagulation has a limited but definite range of usefulness This method of therapy can be efficaciously employed in very small epitheliomas and especially so in lesions recurring in a previously irradiated area where further radiation would be inadvisable Also we have employed this modality extensively in the multiple small epithelomatous nodules occurring in cases of late radiodermatitis of the face where complete excision and repair of the entire atrophic area is usually not feasible Electrocoagulation is the simplest and probably the best method of removing senile keratosis in the prophylaxis of cutaneous cancer Likewise it can be applied to leukoplakia of the lip and accessible portions of the oral mucous membrane In spite of contrary reports in the older literature our experience with this modality in large and penetrating skin cancer has not been encouraging

Electrocautery with a flat tipped applicator is very useful in treating broad, flat, superficial, so-called eczematoid or psoriasiform superficial basal cell epitheliomas which would otherwise require excision with large graft for repair The resultant scar is sometimes cosmetically objectionable, however, and, therefore, such a therapeutic approach is limited to lesions on the trunk.

Lesions involving the rim of the ear lend themselves very nicely to excision with the electric knife The epithelomatous area and free margin including cartilage can easily be amputated under local anesthesia No suturing is necessary The remaining portion of the pinna heals in a few weeks The result is usually excellent This procedure has been illustrated and described in a previous communication [1]

Scalpel Surgery

Surgical excision and repair is routinely performed in all but the very smallest recurrent epitheliomas where irradiation, in one form or another, had been previously used (Electrocoagulation is employed in the very small ones) Likewise, this approach is regarded as the one of choice in most epitheliomas of more than 3 cm in diameter which are situated on the forehead, scalp, dorsum of the hand, or below the knee Lesions with a diameter of 1 5 cm or more, occupying the concha of the ear or in which the external canal has been invaded, are treated surgically

Surgical excision is the method of choice in most large bulky lesions of the lip or commissures Where an epithelioma of the lip is surrounded by leukoplakia, the entire area including the tumor is excised

Although no modality yields a very high percentage of cure in far-advanced cutaneous cancer which has penetrated underlying bone, probably most of these are more profitably approached with scalpel surgery

Chemosurgery

Mohs has demonstrated in an impressive number and variety of cases that so-called "chemosurgery" can achieve results in carcinoma of the skin and lip which compare favorably with those obtained with radiation or scalpel surgery [5 6]

nevus are as follows Usually a relatively smooth, slightly elevated pigmented lesion, the color variable but usually dark brown or blackish (slate-colored or bluish-black is more often the color of the blue nevus), it is usually devoid of hair as an essential part of the lesion (exceptions), it is generally small in size measuring from a fraction of 1 cm to 3 to 4 cm. in size (large lesions are frequently mixed types), it is usually not verrucous or pedunculated, but exceptionally it may be either The junction nevus has been confused with the nevocarcinoma, angiosarcoma, blue nevus, intradermal nevus, benign pigmented epithelioma of Bloch, pigmented basal cell epithelioma, hematoma, angioma, hydrocystoma, pyogenic granuloma, dermatofibroma, puncture tattoo (pencil or ink), and sarcoid, to name those personally encountered Of these, the greatest difficulty exists in differentiating the various nevi, one from the other Clinically, this is sometimes extremely difficult as a blue nevus, an intradermal nevus, or a benign pigmented epithelioma may frequently closely resemble a junction nevus

Therefore, it becomes expedient to do a microscopic examination on the tissue This brings up the question of a biopsy Because one of the dangers lies in the fact that nevi are apt to be mixed in type (blue nevus and junction in same lesion, etc), a section from one area might not be characteristic of other parts of the same mark, and since most junction nevi are relatively small in size, I believe it is advisable to excise the mark in toto in order to obtain a complete histologic opinion on the entire growth As a punch biopsy usually requires novocaine and a suture, excision really presents little in the way of additional surgery No wide margins need be taken at this time, but the excision should go well below the skin and subcutaneous tissue If the report should be unexpectedly adverse, then additional measures may be undertaken at once This saves the average patient from unnecessarily large excision, in the first instance Cosmetically, excision offers about as good a method of treatment as can be selected for most nevi The results from freezing, desiccation, electrolysis, or chemicals are usually not satisfactory, even from the cosmetic standpoint, in the case of junction nevi Therefore, excision is the procedure of choice in dealing with junction nevi that require any type of intervention From the standpoint of safety to the patient, it is immaterial whether a scalpel or "electric knife" is used for the excision, but if preference must be stated, it should be in favor of the "electric knife"

The verrucous nevi, having varying degrees of pigmentation and which lie in the epidermis (intraepithelial), may also terminate in cancer Warty nevi are usually easily identified clinically The warty character, generally without much pigment (exceptions) and with hairs as a variable feature, together with the usually bizarre shape or linear configuration, resemble few other growths Since the lesions are intraepithelial, they are usually quite superficial They may be removed by desiccation, curettement, freezing, and, in selected instances, by radiation (not the benign pigmented epithelioma of Bloch) While they may terminate as carcinomas, not nevocarcinomas, on the whole they represent relatively benign lesions The benign pigmented epithelioma of Bloch may not be warty at all but consists only of pigment found entirely in the epidermis It has been described as a relatively smooth lesion but may present slight thickening or elevation, so that it may be confused with a flat junction nevus which it otherwise does not resemble, since it always remains benign No treatment is indicated for this nevus unless it is removed for diagnostic or cosmetic reasons

The intradermal nevus is undoubtedly the most common of all the nevi in this group with the junction nevus probably ranking next in frequency followed in turn by the intraepidermal nevus The blue nevus is encountered less often but is by no means so rare as was once supposed The pure intradermal nevus is a benign lesion and always remains benign Only when the intradermal nevus is mixed with one of the other types of nevi does the possibility of malignant change arise Because the nevus cells lie at a depth in the cutis in nests and strands well below the epidermal-dermal junction, one might suppose that this nevus would give the clinical impression of lying at a depth as does the blue nevus On the contrary, however, as one looks at these flesh-colored or slightly pigmented nevi, their abrupt elevation is striking, and they appear as if they were more superficially than deeply located Strangely enough, superficial desiccation to skin level completely arrests them, although hairs, if present, may have to receive special treatment The remarkable thing also is that, following such removal, which seems utterly inadequate when looking at the histopathology, the nevi show no tendency to regrow Occasionally, reports that intradermal nevi terminated as basal cell epitheliomas have appeared in the literature These errors have occurred because the patient gave the history that a "mole" preceded the appearance of the lesion, proved to be an epithelioma, whereas it actually began as an epithelioma The same mistakes occur with trichoepitheliomas Even years of shaving over these lesions, naturally

origin at the epidermal dermal junction This is the only lesion that gives rise to such a change All other nevi either always remain benign or give rise to changes other than malignant melanomas

What then, if so much vital information has long been known, can we add now? Just this Not everyone can take the time necessary to attempt to unravel the almost hopeless confusion befogging this subject, largely by virtue of the vague and indefinite terminology which leads one author to employ a term to describe a certain lesion that another will apply to an entirely different malformation Nevi, because they may appear in bizarre patterns, encourage physicians to give rein to their imaginations and create new names that are entirely without meaning, as a rule, except possibly that they might be slightly descriptive of the clinical picture As a result, one reads all too frequently, as in the *Texas Cancer Bulletin*, that a "mole running wild is brutal" It is generally impossible to learn with any degree of accuracy what the original growth actually may have been, but, frequently enough, it probably was not a "mole" or nevus of any type If the original growth actually was a nevus, it would be of the utmost interest to know its exact type as a matter of future knowledge To say that it started as a "mole" or papilloma is equivalent to saying nothing at all

It is a well known fact that nevi do not develop cancer in excess of normal cells When one considers the tremendous numbers of nevi that are found on all individuals and the rarity with which they are complicated by cancer, this is certainly true However, the subject of nevocarcinoma is emphasized by these facts (1) because nevi are so common, it is the more startling when a "mark" that has long been considered benign suddenly gives rise to trouble, (2) when it does occur, nevocarcinoma may be and quite frequently is one of our most rapidly fatal tumors, and (3) that in most, if not in all cases early recognition of a dangerous type lesion followed at once by its prompt and adequate removal could have forestalled a fatal outcome Therefore, in my opinion the crux of the whole subject is to distinguish the various nevi one from the other so that we can recognize the dangerous ones early and remove them at once

Our most dangerous nevi are the pigmented and warty varieties Those which originate in and are confined to the epidermis may remain benign or may terminate as cancer, nevus cells are not present Nevi arising at the junction between epidermis and cutis, the so-called "junction nevi," may give rise to nevocarcinoma (malignant melanoma), or they, too, may remain benign throughout life This may be our most dangerous lesion and should be the one to recognize Two varieties that are considered benign lesions are the intradermal nevus and the blue nevus, both found relatively deep in the cutis. The blue nevus may rarely terminate as a melanosarcoma, but few acceptable cases of this kind are on record Unfortunately, nevi may be, and not infrequently are, mixed in type, and this fact probably accounts for many of the unhappy accidents that have occurred For example, a mark that presents the clinical features usually attributed to a benign lesion is treated by desiccation, freezing, chemicals, or some other method short of radical extirpation, and promptly a nevocarcinoma results What has occurred indicates that in some clinically unrecognizable portion of the lesion a junction nevus was present and was activated by inadequate treatment Everyone can relate innumerable instances in his own experience In fact, in my opinion, that it does not occur with much greater frequency is the best proof of the generally benign character of most nevi Nevi are treated with almost equal abandon by most chiropodists, electrolysis experts, not to mention the family physician, surgeons, and dermatologists

Strangely enough, surgeons are some of the worst offenders Instead of regularly excising nevi as one might expect them to do, they all too frequently apply acids or desiccate, and, to a surgeon, any elevation of the skin, regardless of its character, is a "papilloma" The only thing that keeps them out of greater difficulties is the fact that the pathologist gives them the correct diagnosis when they do excise the lesion, and they may then correct original blunders

The problem, then, would seem to be a simple one Learn to distinguish benign nevi that have no malignant potentialities from those that might become malignant Unfortunately, some of the potentially benign nevi may clinically resemble the possibly malignant ones so closely that this cannot always be done Of course, we can all recognize sudden rapid growth, change in color, bleeding, ulceration, etc , in a pigmented nevus, but those symptoms, which were once given us as "early signs," we now know are, in the main, relatively late manifestations We now like to recognize the junction nevus while it is benign, and if it is located at a point of continuous or oft-repeated pressure or trauma as on the feet or hands, belt or girdle line, recommend that it be prophylactically removed *It is not* feasible to remove all junction nevi, as many individuals have literally hundreds of them scattered over all skin areas Practically all of them remain benign throughout *life, it is only* the exceptional one that goes bad if left alone

The features that characterize the junction



FIG 1. Small area of radiodermatitis simulating a plantar wart



FIG 2 Typical area of plantar radiodermatitis with small ulcerations, varying sized blood vessels, and scar tissue

titis frequently simulates warts, and many times the patient's history of previous treatment does not reveal the use of x-rays or radium (Fig 1) Larger areas on the plantar surface resemble similar areas on other parts of the body with erythema, telangiectasis, and atrophy The larger areas are relatively easy to diagnose, but small areas, 1 cm and less, are at times very difficult to differentiate from warts and corns The smaller the patch, the more difficult it is to diagnose

Most cases of plantar radiodermatitis are the result of treatment for corns, calluses, and warts Because of these original lesions, plantar radiodermatitis usually occurs over bony prominences Even after the original lesion has disappeared, pain still persists because of the pressure of the underlying bony points on the fibrotic radiodermatitis

A thorough history of previous treatment in all cases of plantar lesions, whether it be corn, callus, wart, or radiodermatitis, is necessary It is important to note whether or not irradiation has been given, what type—roentgen, radium, or Grenz ray, the number of treatments, and the dates and the amount of irradiation. Frequently, the patient will give a history of irradiation from more than one physician. If one decides to treat a lesion with further irradiation, it is imperative to learn from the preceding operators the type and amount of irradiation given, the date of treatment, and the size of the portal It is much safer not to give further irradiation therapy if it has already been used, no matter what type of lesion is present The only exception is a malignancy

Most small areas of plantar radiodermatitis when first seen are painful and are covered with a hyperkeratotic mass This must be pared down until the area is approximately as thin as the normal surrounding skin. Only now can a true diagnosis be made The corelike mass does not have the well-marginated border of the usual plantar wart or corn but, instead, has a diffuse border which blends into the surrounding tissue Scarring is evident, and, thus, the normal papillary lines of the sole are interrupted At times, small horny nuclei or islands are present in the scarred area Pain on walking is frequently present An important feature is the presence of desiccated capillary tips varying in size (Fig 2) These may or may not be perpendicular to the surface In a mosaic wart the capillary tips are all the same size and perpendicular to the surface [2]

In severe cases of plantar radiodermatitis, there may be localized areas which simulate plantar warts in size and appearance When these are pared down, the center appears soggy and is made up of many small sinuses which give a honeycomb appearance The next stage is ulceration with more intense pain The appearance of ulceration is strong evidence of radiodermatitis.

The ulcers vary in size in proportion to the radiation absorbed They may be minute, 1 mm in diameter, or they may be larger, up to 1 cm or more The small ulcers are usually round but may appear linear because of the approximation of the opposing surfaces of the ulcer A constant feature of these ulcers is pain, even while the foot is elevated The larger the ulcer the greater is the pain Secondary infection is more apt to be present in the surrounding tissue with erythema and dusky, boggy edema The base of the ulcer is often necrotic Surrounding these ulcerations are typical areas of radiodermatitis

Even in minor cases of plantar radiodermatitis, there is some destruction of the underlying fat pad The greater the involvement, the more extensive the loss Where there has been extensive destruction with deep fibrosis, the involved area is not freely movable over the underlying structures With extensive ulceration, necrosis of the underlying bone may occur

Often adjacent to the patch of plantar radiodermatitis are mosaic warts These are the

resulting in repeated cuts, seems to do them no harm Most intradermal nevi do not appear until the age of puberty or later, and, while they may occur anywhere, they are most commonly found on the face Single lesions may occur, but much more frequently they are multiple After reaching the size of from several millimeters to about one centimeter (except in the case of extremely large lesions that may be present from birth), they usually remain stationary The color varies from that of normal skin to dark brown Hairs are more generally present than not

I am sure that for years the blue nevus, the blue-black or slate-black mole, was mistaken for a junction nevus or even for an early nevocarcinoma It is a benign growth generally, although, rarely, it may terminate as a melanosarcoma Montgomery and Kahler in a review of the reported cases felt that only one or two could be accepted as bona fide examples of such a change [2] The elongated, spindle-shaped nevus cells of the blue nevus are of connective tissue origin and usually are found relatively deep in the cutis or about the adnexa The amount of pigment present and its depth determines the color of the lesion. Not all are blue or blue-black, rarely they may be dark brown or even relatively light brown in color The blue nevus is harmless and is only removed when situated in areas of extreme trauma or for diagnostic purposes to rule out nevocarcinoma or junction nevus

It may be seen that the clinical recognition of the various types of nevi is not always easy Now add to this the fact that several types may be found in the same growth. Such mixtures can only be identified from examination of serial sections, as clinically nevi usually only suggest the predominant type growth that is present It is these mixed lesions that frequently appear to be responsible for exceptions to the rule. Since these mixed types occur with relative frequency, they provide the strongest and most unassailable argument for excision biopsy of all nevi in this group in which there is the least doubt as to their character Excision is the treatment of choice for all nevi that are suspect or that are in areas where irritation and trauma are factors One must remember also that it is impossible to excise all junction nevi and that most of the junction nevi are not strictly precancerous lesions and normally follow a benign course No harm can result from leaving benign nevi alone, but inadequate or ill-advised tampering with dangerous nevi without the benefit of a guiding microscopic examination is malpractice of the worst kind at the present time. If, in addition, we can teach surgeons and the self-styled "cancer experts" to drop the lay terms of "mole" and "papilloma" and substitute modern scientific terminology, even though this will require a little clinical preoperative diagnostic knowledge on their part, it may represent our biggest advance in this field in the past half century

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THE PROBLEM OF PLANTAR RADIODERMATITIS

Andrew H Montgomery, M D , Royal M Montgomery, M D , and Donald C Montgomery, M D ,* New York City

RADIODERMATITIS is usually a difficult problem to handle, not only because of the disability entailed but also because it is considered by many as a precancerous dermatosis Except in the case of postoperative irradiation at the site of malignancies, there is no excuse for plantar radiodermatitis Common corns, neurovascular corns, and mosaic warts are known to be radioresistant [1] Radiotherapy is definitely ineffective on calluses so they should never be treated by this method Yet, all dermatologists have had patients with some type of radiodermatitis caused by someone's carelessness or the persistent use of roentgen, radium, or Grenz rays Usually, these cases are the result of inadequate shielding, intensive dosage, prolonged treatment, and poor judgment in the choice of therapy

Radiodermatitis anywhere on the body is difficult to treat, but it is particularly difficult on the plantar surface of the foot because of the weight-bearing function of the foot It is also difficult to diagnose because plantar radioderma-

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* By invitation

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FIG 4. Large patch of mosaic warts with satellites on left foot Plastic repair for radiodermatitis on right foot following roentgen therapy for mosaic warts.

to prevent recurrence The devitalized tissue is not just limited to the small ulcer or corelike mass but includes a margin of the apparently healthy skin The disadvantage of this method is the scar left by the normal healing process with its subsequent pain. There is no fat pad cushioning the area This all tends to give a poor weight-bearing surface

Skin grafting is used with more satisfactory results [4] A wide excision of the devitalized area is made down to healthy tissue If there is a sufficient fat pad remaining, a Thiersch graft or free full thickness graft may be used According to Ghormley and Lipscomb, these grafts often fail to correct the defects over a weight-bearing surface, especially over bony prominences (Fig 4) [5] In these cases and in those with extensive involvement, an untubed pedicle graft from the opposite calf or prepatellar area may be used The pedicle graft gives a thicker fat pad and, consequently, a more satisfactory weight-bearing surface.

Ghormley mentions a ninety-day postoperative disability with this method However, Shaw states that his patients walk in normal shoes in from six to eight weeks [6]

Even though a skin graft has been made, a protective pad is often necessary to relieve pressure properly over these areas

Dickson recommends a more radical procedure which has given excellent results [7] This consists of the excision of a V-shaped area from the foot including a toe, metatarsal bone, and the area of radiodermatitis The only disadvantage is that the foot is narrower than the normal one The main advantages are that the intractable ulcer and persistent pain are gone and the patient has a good weight-bearing foot

Any plastic repair of the foot is out of the domain of the dermatologist and should be done by a surgeon who is well acquainted with this type of reconstruction

Few areas of plantar radiodermatitis become malignant The authors have never seen a small area of plantar radiodermatitis develop into a cancer Some cases have been observed for years The authors do not believe that all areas of plantar radiodermatitis must be removed, because they feel that they are not all precancerous When an area continues to grow despite therapy, it should then be considered a potential cancer Perhaps the absence of actinic light in a shoe is a factor in keeping these areas free of cancer Certainly, one sees more cancer developing in areas of radiodermatitis on the hands and face than on the foot In line with Andrews' research, liver therapy may help in the prevention of malignancies following plantar radiodermatitis

The problem of plantar radiodermatitis is not a simple one Proper diagnosis must be made first, and the small areas must not be confused with warts Following the diagnosis, one must make a choice between the longer conservative method and the shorter surgical one

Summary

The diagnostic features of plantar radiodermatitis have been described

Treatment has been outlined and divided into conservative and surgical therapy

Conservative therapy is recommended for small areas of plantar radiodermatitis without ulceration, and in cases where the ulcers are small it should be given a trial

Reconstructive surgery is advised immediately for cases with ulceration in an area of 0 4 cm. or more

57 WEST 57TH STREET

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remnants of the original lesion for which irradiation had been given without success

Treatment

Treatment of plantar radiodermatitis may follow either of two methods, conservative or surgical The conservative type is directed toward healing the area and preventing ulcer formation by means of soothing or stimulating remedies and protective padding This method is recommended mainly for small areas with or without ulceration The majority of small radiodermatitis patches on the sole will respond to this treatment It is wise to try the conservative method for two to six months before resorting to surgery

Since pain is the chief subjective symptom, relief of the pain is the first concern in conservative treatment Locally, the area should be pared down to remove the hyperkeratotic tissue This alone will frequently relieve much of the pain incurred by walking The area is thinned down until active blood vessels are seen or pain is elicited A sharp scalpel should be used to minimize bleeding and pain Medications such as ointments containing cod liver oil, urea and/or tannic acid may be applied Aloe vera jelly may also be used, but it is difficult to keep in place if the patient is ambulatory Where there is ulceration, bed rest is necessary together with penicillin therapy Two to five million units may be necessary over a period of one to three weeks Andrews has used liver and penicillin therapy in a few of these cases to aid healing and also to prevent carcinoma [3] His results have been very encouraging

If the patient is ambulatory, pain is diminished by applying protective pads to relieve pressure on the area involved These pads may be made from felt or foam rubber, cut into a crescent or horseshoe shape to fit behind and around the involved area The pad is strapped in place with adhesive A more permanent appliance is a removable insole, with the proper pad incorporated in it A cast of the foot must be taken before a correctly fitted insole can be made This type will obviate the constant renewal of pads applied to the foot and the irritation of the skin by adhesive tape Pads may also be glued into the shoe but they must be properly placed and correctly shaped Proprietary pads are not satisfactory since each pad must be shaped to the individual needs of the patient

In some cases a complete insole of foam rubber is necessary to relieve the pain of walking A small pad applied directly over the area, cushioning it, is helpful These are mechanical substitutes for the partially lost fat pad

In extensive patches of plantar radiodermatitis without ulceration, the patient may be comfortable for years by paring down any calloused area every month or two and wearing a protective cushioned insole



FIG 3 Radiation ulcer with adjacent active mosaic warts treated by two series of x-rays

With this type of conservative treatment some small areas involved become smaller, desiccated blood vessels become less numerous, and the area less painful Ulcers also have been healed If after two to six months there is no sufficient progress and decrease in pain, surgery may be performed

With ulceration, in order to regain normal function of the foot without pain, surgery will often be needed (Fig 3) In fact, where the ulceration is 0 4 cm or larger, it is probably better for the patient to be treated immediately with reconstructive surgery, for the disability will be less in the long run. To give better weight bearing surfaces over bony prominences, surgery is necessary

Various methods of reconstructive surgery have been recommended Some are more desirable than others, but no matter what surgical procedure is followed, infection first has to be removed by bed rest and penicillin therapy

The simplest surgical method is excision of the involved area This must be thoroughly excised

serologic and presumed reinfection Seroresistance is included as failure in treatment In other words, if the titer had not reached negativity sometime during, and then remained so throughout the entire eighteen months, these were considered failures

We had five seronegative primary patients of whom all were cured Of 16 seropositive primary cases, 15 were cured—a cure rate of 94 per cent Thirty-eight cases of secondary syphilis were part of our series Of these, 31, or 81 per cent, were cured Early latent (less than one year in duration) infections numbered 25 There were 18 cured, 72 per cent (Table 1)

TABLE 1.—RESULTS IN FIVE-DAY THERAPY

	Cures	Failures	Total	Per Cent Cured
Seronegative Primary	5	0	5	100
Seropositive Primary	15	1	16	94
Secondary	31	7	38	81
Early asymptomatic (less than one year duration)	18	7	25	72
Totals	69	15	84	82

Results

Unquestionably, our series is small However, we were able to follow a high proportion of our patients for the entire observation period of eighteen months, so the satisfactory results are believed to be of definite significance When the 20 cases which we were unable to follow for the entire observation period are compared with the 84 cases reported, we find that except for a lower percentage of primary cases the proportion is about the same (Table 2)

TABLE 2.—PROPORTION OF PATIENTS FOLLOWED

	Primary	Secondary	Early Asymptomatic
Cases reported	21 (25%)	38 (45%)	25 (30%)
Cases not followed	2 (10%)	11 (55%)	7 (35%)

Using as a basis our classification of failure in treatment outlined above, the accompanying table shows that our results compare favorably with those of Chargin and Thomas where longer treatment schedules were employed (Table 3) [3,5]

TABLE 3.—RESULTS OF TREATMENT OF EARLY SYPHILIS WITH PENICILLIN IN OIL AND BEESWAX

	Thomas *et al.*		Chargin *et al*		Our Series	
	Number	Cured	Number	Cured	Number	Cured
Seronegative Primary	59	93%	13	100%	5	100%
Seropositive Primary	159	86%	51	92%	16	94%
Secondary	372	62%	83	75%	38	81%
Early asymptomatic (less one year in duration)			6	67%	25	72%

Spinal fluid investigations were done on 27 patients sometime during the observation period Two of these were classified as treatment failures One of the latter had a positive spinal fluid All other specimens were negative

It might be worth while to point out that all patients were questioned at each return visit regarding any penicillin therapy for intercurrent infections during their observation period As far as we were able to determine, there were no such occurrences

Summary

Final results of therapy of 84 patients with early syphilis (less than one year in duration) are reported These findings are compared with others, previously published, in which larger doses and longer treatment periods were used It appears that results with this scheme of treatment with an ambulatory penicillin preparation does not vary significantly from the others It is again emphasized that an advantage of this method is the fewer number of patient visits needed to complete the treatment The time when one treatment for early syphilis will be sufficient may not be far off It is hoped that this contribution will be a small step on the way

333 LINWOOD AVENUE

Discussion

Rudolph Ruedemann, M D, *Albany*.—The percentage of cures in darkfield positive, Wassermann negative primary, and Wassermann positive cases in early syphilis after a thorough trial period is an established fact. The maintenance of a definite serum level of penicillin over a time period of at least seventy-two hours, whether with aqueous penicillin, procaine penicillin, or the newer preparations, gives uniform results

We are now particularly concerned with that 25 to 30 per cent of patients, maintaining a positive Wassermann, relapsing or the reinfections, which are difficult to ferret out from the relapses, although the percentage of relapse is estimated from 10 to 40 per cent by various authors

Systems of treatment, variable as to intensity and time, some with arsenic-bismuth combinations, are being put forth A recent report from Chicago in which thirty-hour treatment fever therapy was given using penicillin, mapharsen, and bismuth gives 13 per cent failure [a] Is this too tricky and expensive for routine use? Keim recently advocated 15 daily injections, 300,000 units in Wassermann negative, darkfield positive, primary syphilis with added eight weeks of 16 arsenical and 8 bismuth injections for seropositive primary [b] In secondary syphilis this is followed by ten more injections of 300,000 units of penicillin

Reports come in from all sections of the country, different schedules but all with the one purpose—a higher cure rate, but are we getting into the same old rut—increasing the time and the number of

FIVE-DAY AMBULATORY PENICILLIN THERAPY OF EARLY SYPHILIS

NORBERT G RAUSCH, M D , Buffalo, New York

(From the Buffalo General Hospital)

THERE appears to be little controversy over the fact that the number of patients completing antiluetic treatment varies inversely with the length of time required for completing such therapy Records show that only one out of every five patients who started an eighteen-month clinic treatment scheme completed it Only one out of four such patients received the minimum of 20 arsenical and 20 bismuth injections In sharp contrast are the results of a ten-day ambulatory penicillin in oil and beeswax regime in Almeda, California [1] Approximately 98 per cent of 952 patients who started on such a plan of treatment completed it Eighty per cent missed no clinic appointments Obviously, the shorter the plan of treatment, the more cooperation from the patient

The literature contains many articles on penicillin therapy in a delaying absorption vehicle for early syphilis Thomas *et al* gave 600,000 units of penicillin in oil and beeswax per day for eight days [2] Total dosage was 4,800,000 units Ninety-three per cent of 59 patients with seronegative primary syphilis remained seronegative, 86 per cent of 159 patients with seropositive primary syphilis were cured Only 62 per cent of secondary luetics were cured Chargin *et al* gave 300,000 units daily for sixteen days, a total dosage of 4,800,000 units [3] They treated 13 patients with seronegative primary syphilis All were cured Of 51 cases of seropositive primary syphilis, 92 per cent were cured About 75 per cent of 83 cases of secondary lues were cured Only six cases of early latent syphilis (less than one year in duration) were *part of their series* Two of these six cases remained positive during the observation period, the cure rate being 66 per cent

Blackwood and his group in New York believe that results in the series of cases they report suggest that increasingly large doses of commercial penicillin may not be superior to smaller doses administered over similar short periods of time [4] Prolonging the treatment period from eight to fifteen days improved treatment results according to Thomas [5] Experimentally, Eagle and his coworkers reported on cures of syphilitic rabbits by such small doses that penicillin was never *demonstrable* in the blood [6] They found that low concentrations of the drug acting over a long period of time were more effective than high concentrations acting over a short period. In summary, it would appear from the references cited above that our scheme of treatment, i e , relatively large doses in a short period of time (five days) might not be as efficient as longer treatment periods (eight to fifteen days) with perhaps no increase in total dose

The efficacy of penicillin G treatment in early syphilis is unquestioned The problem, as it now appears, is to find the shortest period and optimum dose over which the antibiotic can be given which will result in a large percentage of cures With this in mind, we instituted in November, 1946, a study of 104 patients with early acquired syphilis on a five-day treatment regime These individuals received individual daily doses of 600,000 units of crystalline sodium penicillin G in peanut oil with 4.8 per cent bleached beeswax The manufacturer maintains that such a preparation given at the rate of 600,000 units daily gives a serum penicillin level of 1 0 units per cc four hours after injection and 0 14 unit per cc twenty-four hours after injection Such a dose amounted to a volume of 2 cc., and the total amount was given in one depot intramuscularly in the buttock The great proportion received five such daily injections consecutively A few cases received the five doses in a six-day period, thereby skipping one treatment day The total amount of penicillin given in each case was 3,000,000 units

Material

These individuals were seen in the diagnostic clinic of the venereal disease division of the then City of Buffalo Health Department * Penicillin was supplied by the New York State Department of Health All treatments were given in the diagnostic clinic by the writer All completed the prescribed course of therapy We were able to follow 84 cases for the entire eighteen months The post-treatment observation consisted of titered serologies and physical examinations at monthly intervals The results given below include only those individuals who were followed the entire eighteen months The classification of treatment failure includes relapses, clinical and/or

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* Since January 1 1948 a part of the Erie County Health Department.

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Systems of treatment, variable as to intensity and time, some with arsenic-bismuth combinations, are being put forth A recent report from Chicago in which thirty-hour treatment fever therapy was given using penicillin, mapharsen, and bismuth gives 13 per cent failure [a] Is this too tricky and expensive for routine use? Keim recently advocated 15 daily injections, 300,000 units in Wassermann negative, darkfield positive, primary syphilis with added eight weeks of 16 arsenical and 8 bismuth injections for seropositive primary [b] In secondary syphilis this is followed by ten more injections of 300,000 units of penicillin

Reports come in from all sections of the country, different schedules but all with the one purpose—a higher cure rate, but are we getting into the same old rut—increasing the time and the number of

injections but losing sight of the fact that with these the patient grows weary?

It has been interesting to observe the development of antiluetic treatment over a thirty-year period The twenty-year, gradual evolving from the sterlisans magna dose to a one and one-half year routine with the arsenicals-mercury and then bismuth This was seemingly well established, the treatment par excellence, only to be upset by the five-day intensive therapy with its hospitalization and reactions, an expensive but effective procedure It had its five-year trial and then on the horizon, in 1943, appeared penicillin, an entirely new approach, an antibiotic, first requiring around-the-clock hospitalization therapy but soon becoming a five-day ambulatory routine, relatively free from reactions, short, inexpensive courses with results comparing favorably with outmoded drugs These features met with one hundred per cent cooperation on the part of the patient This cannot be overlooked as a most valuable asset In our clinics, we have yet to see a patient who has failed to carry out this treatment (The follow-up is another story) This is indeed a far cry from the 35 per cent or even less than 25 per cent who completed one and one-half years routine

New public health problems have arisen added zeal is required to control sources of infection and contacts to prevent reinfections, added effort in follow-up work to check relapses This was particularly necessary because overzealous newshawks led the patients to believe that five days sufficed—this was a cure for all forms of syphilis

This paper reiterates the established fact that the earlier the treatment, the better the results, but in early syphilis, Wassermann positive, the ultimate goal has not been reached Perhaps the newer preparations, with their longer maintenance of penicillin, blood serum levels, will be the answer to the syphilologist's prayer

In striving for the goal, we must not lose sight of the mental and economic status of the average patient with syphilis The individual at the end of the needle does not always have the cerebration to envision the dire consequences of treatment neglect as has the wielder of the syringe The time of treatment must conform with the patient's economic status—no loss of time from his work, plus his inclination to appear for treatment with not too many explanations necessary to his employer In Vermont a most recent report bore out these facts, when out of 193 patients, all white, 49 (25 4 per cent) took irregular treatments mostly because of failure to set a proper time [c]

After listening to Dr Rausch's paper, coupled with personal experience, we cannot help but feel penicillin is the drug of choice in early syphilis, but new developments must be along these same lines—short, inexpensive therapy, readily available

Why strive for that added 25 to 30 per cent of cures by increasing time and the number and the variety of injections, when perhaps 30 per cent or more of the patients become weary and disinterested and drift back into promiscuity with their relapses!

The Parran goal will never be reached until, educationally and therapeutically, our efforts are concentrated on the patient with early syphilis and we finally achieve Utopia, when the 33 per cent early syphilis and 67 per cent late syphilis, now reported in our State, is reversed to 67 per cent early syphilis and 33 per cent late syphilis Only then will our goal be in sight

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TEN POINTS

1 You cannot bring about prosperity by discouraging thrift

2 You cannot strengthen the weak by weakening the strong

3 You cannot help small men by tearing down big men

4. You cannot help the poor by destroying the rich.

5 You cannot lift the wage-earner by pulling down the wage-payer

6 You cannot keep out of trouble by spending more than your income.

7 You cannot further the brotherhood of man by inciting class hatred

8 You cannot establish sound security on borrowed money

9 You cannot build character and courage by taking away a man's initiative

10 You cannot really help men by having the government tax them to do for them what they can and should do for themselves.

—*Committee for Constitutional Government, New York City*

CUTANEOUS LEISHMANIASIS—REPORT OF A CASE AND SUMMARY OF THE NEWER CONCEPTS

MARVIN N WINER, M D , Buffalo, New York

(From the Department of Dermatology, Edward J Meyer Memorial Hospital)

CUTANEOUS leishmaniasis is not a new disease, having first been described by Russell in 1756 [1] It was not until 1903 that the causative organism was first accurately described by Wright The description of the causative factor by Wright showed it to be a protozoan organism of the family *Trypanosomidae* This flagellate has the property of infecting vertebrates but utilizing invertebrates as intermediate hosts Leishman later changed the name of the etiologic organism to Leishmania tropica [2]

Several excellent articles have been published in the last fifteen years by Fox, Dostrovsky, and numerous South American authors [3 4] A splendid review was published by Goldman in 1947 [5] The epidemiologic importance of cutaneous leishmaniasis has been overstressed, since all of the reported cases (as well as my own) were exogenous in origin The case reported as autochthonous by Benedek was dismissed by Fox as having originated in Poland [6] The report of Stewart and Pilcher of an autochthonous case in an American-born Mexican boy was questioned by Goldman because the diagnosis was based solely on the findings of the Leishmania organisms in tissue section.[7] Furthermore, it has been shown that cutaneous leishmaniasis is primarily a self-limited disease Experience with American troops stationed in the middle East showed that, of 499 proved cases occurring in these soldiers, there were few actual cases when these troops were returned to the continental limits of the United States [8]

There are several classifications of leishmaniasis given in the literature A simple and logical grouping, based on anatomic involvement, is as follows

(*a*) Primary cutaneous (oriental sore) caused by L tropica

(*b*) Primary cutaneous with secondary visceral involvement (Espundia or Uta, South American leishmaniasis) caused by L braziliensis

(*c*) Primary visceral—Kala-azar caused by L. donovani, and infantile splenomegaly caused by L. infantum.

(*d*) Primary visceral with secondary cutaneous involvement (post-Kala-azar leishmanid)

There has been considerable controversy regarding the ability to distinguish morphologically between L. tropica, braziliensis, and donovani That all three are variants of a single organism has been repeatedly suggested This question is important and not only from an academic point of view Are the three strains immunologically related? Noguchi, quoted by Sutton, claims that Leishmania tropica, braziliensis, and donovani are serologically specific, yet fermentation tests are not adequate to distinguish between them.[2] Is prophylactic immunization in endemic areas indicated? In Bagdad, Persia, and Turkestan, prophylactic inoculation of children has been practiced for many years. Graduated dosages of culture material of L tropica have been used, the children developing cutaneous ulcers at the site of inoculation which last for two or three months [9] Upon involution of these ulcers, immunity develops, presumably permanent.

The methods of transmission have not been fully established to date Reservoir hosts include the Macacus monkeys, cats, and brown bears Dogs and white mice have been successfully inoculated [10] The sandfly, genus Phlebotomus, is almost universally accepted as a vector for the Leishmanial parasite Different species of the Phlebotomus are involved in different parts of the world Stable flies, house flies, ticks, and bedbugs have all been incriminated as possible vectors, but the mere presence of the flagellates within the bodies of these bugs does not necessarily mean that they are true vectors The bodies of L. donovani have been isolated in the nasal discharges of humans, as well as in the urine and feces [11]

Whether the respiratory method of transmission is of importance has not been established Autoinoculation does occur, and contact from person to person is a distinct possibility In France, however, the disease does not have a tendency to spread in wide areas Climatic conditions must have some bearing on transmission

It is questionable whether the Phlebotomus fly must actually bite the host (the proboscis penetrating the skin) The excreta may contaminate the skin abrasion when the insect alights on the skin [12] Slapping an insect and crushing it against the skin is sufficient for inoculation to take place However, despite the crushing of

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the insect with the hands (palms) in the case of oriental sore, to my knowledge the palms as a site of oriental sore have never been reported The difference in thickness and toughness of the skin on the palms, as contrasted with the face for example, probably is the important point However, I feel that minute breaks in the skin are much more likely to occur on the hands than on other parts of the body

Southwell and Kirshner have dissected many sandflies and have found that the leptomonad or flagellate form is present only in the pharynx of the flies, while the Leishmania, or nonflagellated forms, are present in the midgut of the insects [12] When the leptomonad form is inoculated into the human, no infection results, while inoculation with the Leishmania type almost invariably produces infection This would indicate that an actual bite by the insect is not likely to result in infection unless material from the gut is forcibly injected during the biting process Whether an insect possesses the powers of regurgitation, I do not know

The diagnosis of cutaneous leishmaniasis is not always easily made In nonendemic areas, such as the United States, a high index of suspicion is not maintained In Latin America, however, one hears the dictum that ulcers above the waist are leishmaniasis, while those below are the so-called tropical ulcers [5] The lesion usually begins with a discrete papule on the exposed portion of the body This enlarges to become a nodule which may either be level with the surrounding skin (deep nodule) or elevated in the classic manner The nodule then undergoes ulcerative changes, and the entire lesion finally heals with atrophic scarring The scar usually assumes a spindle-shaped pattern Various laboratory measures have been used in the diagnosis of cutaneous leishmaniasis These include direct examination of smears taken from the ulcer, culturing, vaccine test, examination of blood smears, formol-gel test, and biopsy or tissue examination

Of the methods enumerated, direct microscopic examination of the stained smear is perhaps the best Unfortunately, the incidence of positive results in proved cases is not one hundred per cent Dostrovsky and Sagher state that smears are negative in 10 per cent of cases of cutaneous leishmaniasis, despite excellent conditions in experienced hands [13] Culturing on the N N N medium (Nicolle-Novy-NcNeal) and, more recently, the egg embryo medium yields a satisfactory incidence of positive results

Sagher recently cited two cases of recurrent leishmaniasis with no parasites present on smear or culture but giving a positive vaccine test in a dilution of 1 10,000,000 [14] This author claims that the vaccine test is one of the more important laboratory procedures in making the diagnosis of leishmaniasis He reported 84 cases of cutaneous leishmaniasis of the early nodular type, all showing a response to a dilution of 1 100 and 1 10,000 Sagher claims that the recurrent types and the early types with lymphogenic spread show a reaction to the vaccine test in a much higher dilution, ranging from 1 10,000 to 1 10,000,000 This indicates an extremely allergic reaction similar to the papulonecrotic tuberculid and implies that a positive vaccine test is indicative of an immunologic reaction to an endoprotein or possibly a toxin elaborated by the Leishmania organism

The examination of the peripheral blood smear is of little value, except that monocytosis has been reported in several instances The formol-gel test is by no means pathognomonic In leishmaniasis, a cloudy gel is elaborated, as contrasted to the clear type gel found in other diseases

The pathology of leishmaniasis is not pathognomonic, being very similar to blastomycosis, except that many plasma cells are scattered diffusely throughout the tissues in leishmaniasis, and no microabscesses are found within the epidermis (Satenstein) [1] Weidman claims that the pathology is tuberculoid but not distinctive [1] Wenyon, quoted by Goldman, claims that the identification of the Leishmania parasites in sections is always open to question unless made by an observer who has had extensive experiences with these particular organisms [5]

Treatment

The treatment of cutaneous leishmaniasis may be divided into three main categories I will not go into detail, other than to mention the principal agents used

Local Treatment with Chemicals—Among the chemicals which have been used are tincture of iodine, pure phenol, local injections of berberine sulfate, red cell paste, etc

Physical Modalities—Dry ice and x-ray have been used It is interesting to note that MacKee in his most recent textbook does not even mention leishmaniasis as a condition amenable to x-ray [14] Auerbach mentions a prompt cure within two months after a total dosage of 750 roentgen units (factors not given) [16]

Systemic Treatment—Tartar emetic was first introduced by Vianna for the treatment of South American leishmaniasis in 1913 [17] In 1916, Caronia used the pentavalent antimony compounds Stibacetin and Stibinyl.[17] Since that time it has been found that the pentavalent antimony compounds are far superior to the trivalent



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FIG 1 Photograph of patient showing appearance of lesions at first examination Ulcer, lower left margin, was biopsy site



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FIG 2 Low-powered magnification showing relatively normal epidermis and tuberculoid infiltration in the midportion of the corium.

compounds [15] Of the former, no drugs are superior to Stibanose, Neostam, or Neostibosan The therapeutic effects of the drugs seem to be correlated with the concentration of antimony in the spleen (experimental leishmaniasis of hamsters) The exact mode of action of antimony is conjectural Whether the antimony molecule actually destroys the parasites or merely stimulates a mechanism of resistance to the infection is debatable Suffice it to say that the pentavalent antimony drugs are superior agents in the treatment of cutaneous leishmaniasis Vaccine treatment, using killed organisms from a culture of L tropica in the dose of one half million parasites, has been used with debatable results

The report of the thirty-second exogenous case of cutaneous leishmaniasis from the United States follows

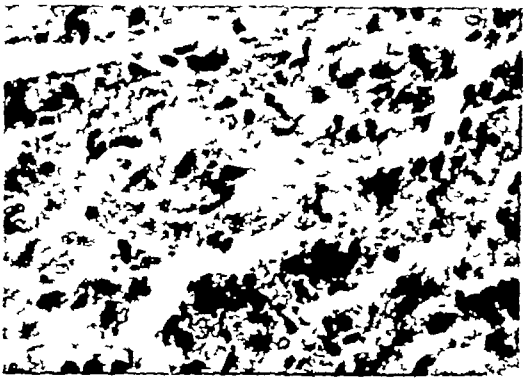
Case Report

M H, a white, twenty-four-year-old man, was referred by a physician for diagnosis and treatment on October 31, 1947 He gave the history of coming to the United States from Palestine on or about July 2, 1947, four months prior to his first examination Ten weeks after entering the United States, he noted a painful inflammatory lesion on the upper margin of the bridge of the nose He emphatically denied a previous insect bite. Local hot moist dressings were used in conjunction with a sulfathiazole powder, followed by the intramuscular use of penicillin in oil and beeswax With the response being unsatisfactory after five days of this treatment, the patient was referred by his family physician (Fig 1) The referring physician had noted some peripheral extension of the lesion with pinhead globular papules appearing at the margins.

Except for attacks of seasonal pollenosis and bronchial asthma, the past history and functional inquiry were noncontributory

The general medical examination was negative Temperature, pulse, and respiration were normal The dermatologic examination revealed an erythematous plaque extending across the bridge of the nose measuring 1 1/4 inch in the horizontal diameter and 3/4 inch in the widest portion of the vertical diameter The upper margin of the plaque began 1/4 of an inch below the glabella. With the crust removed, the base was composed of healthy granulation tissue with a few globules of mucopurulent debris scattered irregularly over the surface

The tentative diagnoses were leishmaniasis and blastomycosis A culture was taken from the



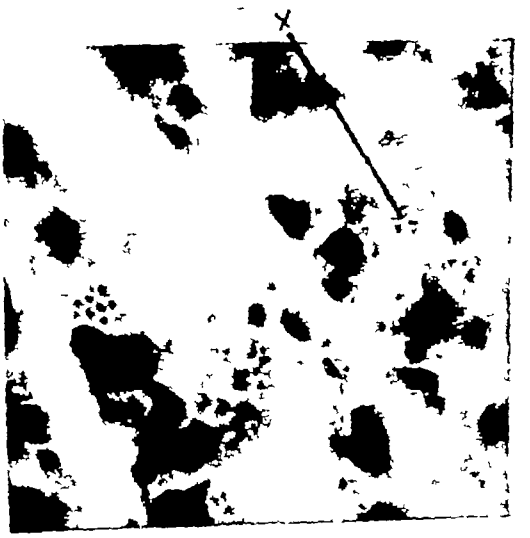
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FIG 3 Intermediate magnification showing macrophages and plasma cells with an occasional epithelioid cell. The Leishman bodies are seen within the macrophages

margin of the lesion (after curettage by means of a fine curet and capillary pipet) The culture was implanted on blood agar (the only available medium at the time) A punch biopsy was taken from the left lower margin of the plaque.

Subsequent laboratory examinations revealed the following The blood Wassermann test was negative, the red and white blood count and hemoglobin tests were all within normal limits, the urinalysis was normal, and repeated cultures (six) implanted on blood, Sabaraud, and N N N media merely revealed a few gram-positive organisms resembling staphylococci Repeated smears (including smears made by compressing the removed biopsy tissue on slide) using Giemsa's stain were all negative.

Pathologic examination of the tissue sections revealed the following The epidermis was ulcerated at one margin. Except for the presence of a few lymphocytes and an occasional mononuclear leukocyte in the lower granular layer, the epidermis was normal. In the midcorium several tuberculoid aggregates were seen (Fig 2) These were primarily composed of epithelioid cells, lymphocytes, and plasma cells (Fig 3) Large pale-staining cells with a single pink nucleus were seen Within the margins of these large cells, many discrete, round and oval, light-staining bodies were seen (Fig 4) These parasites were occasionally found outside of the margin of these cells, apparently because of rupture of the limiting cell membrane



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FIG 4. High-powered magnification showing large, pale-staining cells (macrophages) containing the Leishman bodies. An occasional blepharoplast is seen (X)

Summary

1 A report is made of the thirty-second exogenous case of cutaneous leishmaniasis in the United States and Canada

2 The methods of transmission of this disease are reviewed The bite of the sandfly is, in itself, not necessary as a means of transmission.

3 Newer laboratory methods of diagnosis including the cultural and intradermal vaccine methods are briefly outlined

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Discussion

Harold L Walker, M D , Elmira —This case report and comprehensive review of the literature on cutaneous leishmaniasis is timely This is particularly true in these days of increasing air travel to endemic areas, such as the Mediterranean, Near East, Orient, and South America. Due to the relatively long incubation periods of the various types of cutaneous leishmaniasis, an individual could become infected in an endemic area and return to the United States prior to the onset of clinical symptoms Therefore, such reports as this should serve to remind us that tropical diseases, such as cutaneous leishmaniasis, are not medical curiosities but diseases any of us may be called upon to treat in our private practices. Even though such tropical cutaneous diseases are relatively uncommon, patients with nodular or noduloulcerative lesions occurring on exposed areas such as the face should be questioned as to whether or not they have traveled in endemic areas If a history of such travel is obtained, the various types of cutaneous leishmaniasis, such as oriental sore, post-kala-azar dermal leishmaniasis, and American leishmaniasis, as well as the more common nodular lesions, must be included in the differential diagnosis.

In the fall of 1944, I had the opportunity to observe cases of both oriental sore and post-kala-azar dermal leishmaniasis in the clinics at the Tropical School of Medicine in Calcutta, India. Dr Winer has described the clinical features of oriental sore which is due to L. tropica and which occurs chiefly in hot dry climates like the western part of India.

Of course there are many variations in addition to the typical papular or nodular type Among these are the verrucous and the lupoid type. Clinically, the verrucous type closely resembles verrucous tuberculosis In the lupoid type, which is occasionally referred to as leishmaniasis recidiva, the original papule heals with scarring, and new papules occur at the border and spread peripherally The lupoid type, as the name implies, resembles lupus vulgaris

The condition, post-kala-azar dermal leishmaniasis, is a very interesting entity Kala-azar, so-called visceral leishmaniasis due to L. donovani, occurring in hot moist areas with altitude below 2,000 feet, such as eastern and southeastern India, presents certain clinical features such as irregularly remittent fever, emaciation, anemia, and enlarged liver and spleen When the visceral infection is overcome either by treatment or spontaneously, some of the organisms occasionally remain in the skin and slowly multiply When this occurs, about one or two years later post-kala-azar dermal leishmaniasis may develop One of the early symptoms is an erythematous eruption involving the middle third of the face, resembling rosacea. In addition, hyperpigmented macules, pinpoint to about $1/2$ inch in diameter, may develop with the distribution similar to that of pityriasis rosea involving the neck, trunk, extremities, and also occasionally the face As time goes on, the hyperpigmented lesions, as well as the erythematous areas, may become nodular Apparently post-kala-azar dermal leishmaniasis is rare in other areas, but more than 1,000 cases of this condition have been recorded at the Tropical School of Medicine in Calcutta, India

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RING DEATHS "SHOCKING," CHICAGO EDITOR CLAIMS

The shocking incidence of ring deaths and serious injuries among professional boxers make the "sport" the greatest killer in American athletics, says Thomas Gorman, Chicago, assistant managing editor of *Hygeia*, health magazine of the A.M.A.

Boxing has produced more deaths per number of participants than any other sport, and 50 per cent of active fighters are punch drunk to some degree, he points out in the June issue of the magazine.

"The 13 ring deaths of 1948 form a continuation of a series over the years since professional boxing has become widely legalized in the United States," Mr Gorman says. "According to recent figures, five boxers were killed as a result of bouts up to April 20 this year, 13 in 1948, nine during 1947, and 11 in 1946

"A boxer dosn't have to be knocked out or have his skull broken to be seriously injured He may suffer pinpoint hemorrhages or other harm to his brain not outwardly apparent even to the trained physician

"These injuries can result from any hard blow to the head Pinpoint hemorrhages caused by the concussion from a hard blow may destroy nerve tissues. Brain tissues do not heal as do other tissues of the body

"Some parts of the brain can suffer destruction of a small amount of tissue without immediate paralysis or changes in behavior These injuries are permanent As more are received they will contribute to loss of mental powers or bodily control.

"Doctors who have pointed out the dangers of organized mayhem based on scientific observations over the years are only permitted on the sidelines as members of advisory boards and as medical examiners dependent for their fees on the whims of politicians Use of doctors has the effect of furnishing a phony respectability to an otherwise dubious activity

"The participants for our 'sport' of professional boxing come from the thousands of high school boys and young men in college who engage in amateur boxing This has become so highly organized through vast intercity tournaments that the only division between professional and amateur boxing is the funnel by which the first is supplied with manpower from the great reservoir of the second They are both part of the same picture"

A STUDY OF MATERNAL DEATHS IN NEW YORK CITY FOR 1947

EDWIN M GOLD, M D , and HELEN M WALLACE, M D , New York City

(From the Bureau of Maternal and Child Hygiene, New York City Department of Health)

THE medical profession is particularly interested in securing the best possible care for the expectant mother, in preventing complications involving the pregnant state whether they occur before, during, or after delivery, and in preventing deaths from these complications

One of the most striking methods of illustrating these preventable factors is to study the lessons offered from maternal deaths This then is the reason for the following analysis, in which a study of the maternal mortality for the year 1947 in New York City is undertaken During this period of time there were 171,174 live births and 230 maternal deaths, with a maternal mortality rate of 1 34 per 1,000 live births

The material in this report is taken from data available on death certificates in New York City and supplementary information secured from autopsy reports on 41 per cent of the cases of this series in the office of the Medical Examiner in the City of New York. It should be mentioned at the outset that there is some limitation in this material source, and unquestionably more complete data are present in case reports from hospitals and physicians' records

Table 1 shows the distribution of maternal deaths by borough in New York City for 1947

TABLE 1 —DISTRIBUTION OF MATERNAL DEATHS BY BOROUGH

Borough	Number of Live Births	Number of Maternal Deaths	Maternal Mortality Rate*
Manhattan	53 282	86	1 63
Brooklyn	67 091	76	1 13
Bronx	23 923	39	1 63
Queens	22 418	25	1 11
Richmond	4 460	4	0 89
Totals	171 174	230	1 34

* Per 1 000 live births.

In this group of 230 maternal deaths there are 37 which are not related to pregnancy or the puerperal state, leaving 193 puerperal deaths with a corrected maternal mortality rate of 1 13 per 1,000 live births Fifteen of these cases, or 40 per cent of the nonpuerperal deaths, occurred in patients who were beyond the first month postpartum

Marital Status

An analysis of the marital status of the maternal death group shows that there were 18 single women, three widows, one divorcee, the remainder were married

There were 35 women who had induced abortions and died, of whom approximately 50 per cent were married We call attention to this fact because such a high incidence of deaths associated with induced abortion occurred in the married group

Racial Distribution

Table 2 shows that, in spite of the fact that 11 per cent of the live births in 1947 occurred in the nonwhite group, 27 per cent of the maternal deaths occurred in this group The maternal mortality rate in the nonwhite group is three times higher than that of the white group This fact points the need of more complete availability of medical and hospital care, better education of the nonwhite group of expectant mothers, and better case-finding to assure early and continuous antepartum care

TABLE 2 —RACIAL DISTRIBUTION OF PATIENTS

Color	Maternal Deaths Number	Maternal Deaths Per Cent	Total 1947 Live Births Number	Total 1947 Live Births Per Cent	Maternal Mortality Rate
White	167	73 3	152 836	89 3	1 09
Nonwhite	63	26 7	18 338	10 7	3 44
Total	230	100 0	171 174	100 0	1 34

Length of Gestation

Fifty-seven per cent of the patients died during the third trimester of pregnancy If we include the patients with abortion and ectopic pregnancy whose gestation periods were unknown with the group dying in the first trimester of pregnancy, a total of 20 per cent died in the first trimester of the pregnancy This high incidence of death (20 per cent) in the first trimester is pointed out specifically as a perhaps not too well-appreciated fact (Table 3)

TABLE 3 —MATERNAL MORTALITY IN RELATION TO LENGTH OF GESTATION

Length of Gestation	Number of Patients	Per Cent
First trimester	11	4 8
Second trimester	17	7 4
Third trimester	131	56 9
Postpartum	20	8 7
Abortion gestation unknown	23	10 0
Ectopic pregnancy gestation unknown	0	3 9
Gestation unknown	19	8 3
Totals	230	100 0

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Causes of Maternal Deaths

Hemorrhage—In the last compiled national statistics available, hemorrhage is listed as the third cause of maternal mortality, being outstripped by infection and toxemia, respectively [1] In our review of maternal mortality in New York City for 1947, hemorrhage is found as the leading cause of death 53 cases, or 23 per cent, of the 230 recorded deaths (Table 4) It is of interest to us that in a city such as ours where 99 per cent of the deliveries occur in hospitals, such a reversal in trend should be evidenced It is even more startling in the light of this last fact to observe that of these hemorrhage deaths, 10 per cent occurred within one hour postpartum, 20 per cent within two hours postpartum, and 30 per cent within three hours postpartum All deaths due to hemorrhage occurred within the first twenty-four hours postpartum

The reversal of trend referred to above, in which hemorrhage became the leading cause of death, was noted by Gordon in his reviews of maternal deaths in Brooklyn since 1940 [2] Merely to point out the statistical incidence of hemorrhage is fruitless unless this information is translated into day-to-day obstetric practice With this view in mind, our survey discloses the following (1) Blood replacement is a life-saving necessity Every hospital with a maternity service must have an adequate supply of blood for immediate administration (2) Better diagnosis is necessary in cases of ectopic gestation, since 25 per cent of the hemorrhage deaths were in the first trimester of pregnancy of which the great majority were associated with ruptured ectopic gestation.

Infection.—Infection in this series is the second leading cause of death, while nationally it is the leading cause of death [3] In our series of 48 infection deaths, 50 per cent were due to embolic phenomena, approximately half of which were associated with cesarean section (Table 4) The other 50 per cent were cases of frank infection (generalized peritonitis) in which criminal abortion played a major role

Cardiovascular Disease—Deaths from cardiovascular disease are not listed as a separate entity in national statistics of maternal mortality Yet, in our series, cardiovascular disease appears as the third major cause of death, with 42, or 18 per cent, of the cases (Table 4) The major risk of rheumatic heart disease complicating pregnancy is emphasized, since 60 per cent of the cardiovascular deaths were due to this cause These findings demonstrate the need for greater appreciation of the risk and more active participation by obstetrician and internist in the management of the pregnant woman with cardiac disease

Toxemia.—Toxemia in our series ranks fourth as the cause of death, accounting for 12 per cent of the deaths as compared to a national ranking of second place in 1944, with 25 per cent of the maternal deaths (Table 4)

Anesthesia.—Anesthesia deaths, which have heretofore been overlooked in national statistics, have recently been found to be a significant factor in maternal mortality In our series anesthesia accounted for 4 per cent of the deaths and ranked fifth as a cause of death (Table 4)

There are three major approaches to the problem of reducing deaths due to anesthesia Prophylactically, solid food should be withheld from the parturient in active labor In addition, lavage of gastric contents prior to induction of anesthesia, as recently pointed out by Mendelson, is a major step forward [4] The maintenance of a clear airway is to be stressed [5] Finally, top quality anesthesiology practiced by qualified personnel in the field is a necessity, not a luxury, in obstetric practice

Miscellaneous—There were 47 deaths due to a wide variety of causes, of which 37 were nonpuerperal, as previously mentioned

TABLE 4.—CAUSES OF MATERNAL DEATH IN NEW YORK CITY IN 1947

Cause of Death	Deaths	
	Number	Per Cent
Hemorrhage	53	23 0
Infection		20 8
Emboli	24	
Other	24	
Cardiovascular disease		18 2
Rheumatic heart disease	28	
Other	16	
Toxemia	27	11 7
Anesthesia		4 3
Aspiration pneumonia	7	
Spinal death	3	
Miscellaneous	47	20 4
Unknown	3	1 3
Totals	230	99 7

Comparison of Types of Deliveries

It is acknowledged obstetrically that certain types of delivery are fraught with added risks to the parturient Table 5 statistically portrays these risks, as follows

1 Midforceps delivery appeared in 2 9 per cent of the total 1947 deliveries, while its incidence rose to 3 5 per cent in the mortality series

2 Version without forceps to the aftercoming head had an incidence of 0 2 per cent in the total 1947 deliveries, but its incidence rose ten times in the mortality series to 2 6 per cent

3 The over-all cesarean section rate in 1947 was 3 6 per cent for all deliveries, but its incidence rose five times in the mortality series to 18 2 per cent

4 The apparent 35 times higher incidence of curettage in the mortality series must be qualified by the understanding of the fact that criminal

abortions constituted a great majority of these deaths in the mortality series

5 Ectopic pregnancy appears with a 26 times greater frequency in the maternal mortality series, despite the fact that 10 of these 12 cases died in the hospitals Since eight of these 12 ectopic pregnancies died unoperated and hemorrhage was listed as the cause of death in 10 of the 12, one can but conclude that late or erroneous diagnosis played a significant role

6 Lastly, it is worthy of mention that, despite the fact that 85 per cent of the total deliveries terminated spontaneously or by low forceps, these modes of delivery were associated with slightly more than 25 per cent of the total maternal deaths in 1947

TABLE 5 —Comparison of Total Deliveries with Total Maternal Deaths in 1947 by Types of Deliveries

Type of Delivery	Total Performed in 1947 Number	Per Cent Incidence	Total Deaths in 1947 Number	Per Cent Incidence
Spontaneous	105 005	56 6	34	14 7
Low forceps	53 485	28 3	25	10 9
Midforceps	5 441	2 9	8	3 5
High forceps	115	0 06	0	0 0
Version, no forceps	405	0 2	6*	2 6
Version with forceps	44	0 02	0	0 0
Breech extraction, no forceps	2 920	1 6	2	0 9
Breech extraction with forceps	414	0 2	0	0 0
Cesarean, all types	6 729	3 6	42	18 2
Curettage	708	0 4	35	14 7
Hysterectomy	129	0 06	0	0 0
Spontaneous abortion	9 740	5 3	6	2 6
Ectopic gestation	339	0 2	12	5 2
Undelivered	?	?	40	17 3
Other operative procedures	720	0 4	1**	0 4
Not stated	32	0 02	19	8 2
Mutilating procedures	27	0 01	0	0 0
Totals	185 251	99 87	230	99 2

* A craniotomy was performed prior to version on one case.
** This patient died on the table after institution of fractional spinal anesthesia preparatory to cesarean section

Cesarean Section

It has been stated in a recent maternal mortality study that approximately one third of maternal deaths exclusive of those in early pregnancy have been associated with cesarean section.[6] In this 1947 study, 42 women (18 per cent) were delivered by cesarean section Table 6 analyzes the causes of cesarean deaths

TABLE 6 —Causes of Death in Cesarean Section Cases

Cause of Death	Deaths Number	Per Cent
Infection		33 2
Embolism	11	
Postoperative ileus with peritonitis	2	
Intestinal obstruction	1	
Hemorrhage	10	24 0
Toxemia	7	16 6
Cardiovascular disease		14 4
Rheumatic heart disease	4	
Other	2	
Anesthesia		7 1
Spinal	2	
Other	1	
Miscellaneous	2	4 7
Totals	42	100 0

The risk of death from infection in cesarean section is 60 per cent higher than that for the total series

Toxemia, the third greatest cause of cesarean deaths, had a 50 per cent greater incidence as cause of death in the cesarean group than in the total series

Abortion

Of the 41 women who had abortions and died, 35 or 85 per cent had a curettage Of these 35 instrumentalized cases, seven, or 20 per cent, were associated with traumatic perforation of the uterus with intestinal laceration. The cause of death in all of these cases was acute generalized peritonitis proved at autopsy

There were six cases of spontaneous abortion, or 15 per cent of the total abortion deaths Two of these six women died of postabortal hemorrhage, in the other four women, the abortion occurred spontaneously, secondary to the underlying conditions which caused death—namely, two cases of acute appendicitis with peritonitis, one case of intestinal obstruction, and one case of hypertensive cardiovascular disease

Ectopic Pregnancy

There were 12 ectopic gestations in our total series of 230 maternal deaths (5 per cent) Hemorrhage was the cause of death in 10 of these 12 cases, cyclopropane anesthesia accounted for one death, and intestinal obstruction the other

TABLE 7 —Data on Cases of Spontaneous Rupture of Uterus

Case Number	Type of Delivery	Cause of Death	Duration of Labor	Duration of Survival after Delivery	Number of Previous Pregnancies
1	Spontaneous	Hemorrhage	2 hours 5 min.	13 days	2
2	No information	Hemorrhage	No information	2 hours 20 min.	6
3*	Spontaneous	Hemorrhage	No information	14 hours	3
4	Spontaneous	Hemorrhage	9 hours	7½ hours	3
5	Low forceps	Hemorrhage	27 hours	8 hours	7
6	Spontaneous	Hemorrhage	No information	During laparotomy	No information

* Rupture occurred in fundal scar at site of myomectomy performed one year previously

Laparotomy was performed in only four cases (33 per cent) Eight cases died unoperated, the diagnosis was made in these cases on the basis of autopsy findings Ten of these 12 women died in a hospital, two died at home

Spontaneous Rupture of Uterus

Spontaneous rupture of the uterus, while it appears nowhere in our compilation of statistics, occurred in at least six patients The facts of interest in these cases are summarized in Table 7

The most striking evidence elicited from the above data is the fact that, despite survival time ranging from two hours twenty minutes to thirteen days, only one of the six cases was operated It is of further interest to note that no primipara appears in this group The patients had from two to seven previous pregnancies It is also of interest that previous uterine operation (myomectomy) had been performed in only one patient It is of interest that Case 1, who had had only two previous pregnancies, sustained this dire complication after a precipitate labor with spontaneous delivery

Home Deaths

There were 15 women who delivered and died at home with a maternal mortality rate of 4.7 per 1,000 live births, compared to the over-all rate of 1 34. Thus the home maternal mortality rate is three and one-half times that of the over-all mortality rate for New York City in 1947 It is of interest that five patients who delivered at home died of hemorrhage, and three patients died of infection One of the infection deaths was due to septicemia This finding demonstrates the hazard of home delivery, particularly when one-third of these cases died of hemorrhage How can the emergency of postpartum hemorrhage, to list but one obstetric emergency, be adequately coped with in the home? It is hoped that future years will see a total disappearance of home deliveries in this city

Economic Status of Patients

It is becoming more and more an accepted fact that mortality in obstetrics is a product of preconceptional, ante-, intra-, and postpartal factors In other words, it reflects the entire status of the patient Prophylactically, therefore, one must deal with the developmental, nutritional, emotional, and systemic aspects of the patient on the one hand and the environmental (social and economic) factors on the other hand What more graphic portrayal of the above factors can be made than to demonstrate the more than 100 per cent difference in maternal mortality rate between the private patients with a rate of 0 7 and the ward patients with a rate of 1 9 per 1,000 live births (Table 8)

We stated at the outset that only 41 per cent of the cases were autopsied If more knowledge regarding maternal mortality is to be gleaned, certainly a higher percentage of women who die should be studied at the autopsy table

TABLE 8.—ECONOMIC STATUS OF PATIENTS

Economic Status	Patients		Live Births	Maternal Mortality Rate
	Number	Per Cent		
Private patients	95	41 3	124 134	0 7
Ward patients	84	36 5	45 378	1 9
Unknown	51	22 2		
Totals	230	100 0	169 512*	

* There were an additional 1 662 live births distributed as follows ambulance 1 150 midwife 121 nurse-midwife 343 foundling 32 other 16 making a total of 1 662 births

Condition of Child or Fetus

Table 9 shows that 37 per cent of women in this group had a living child In 57 per cent of the women there was pregnancy wastage, i e, the child was stillborn, aborted, and not delivered or ectopic

This pregnancy wastage should be compared with the 1947 city-wide statistics, in which there were 185,251 total deliveries, 171,174 live births and 14,077 fetal deaths The total reported pregnancy wastage, city-wide, was, therefore, 8 0 per cent

From these figures it is obvious that fetal wastage is seven times higher in our group of maternal mortality cases than in the total women who delivered in 1947 in New York City

TABLE 9.—STATUS OF CHILD OR FETUS

Status of Child or Fetus	Number of Patients	Per Cent
Child living	86	37 4
Child stillborn (full term or near term)	39	16 9
Child aborted	41	17 8
Child not delivered	40	17 4
Ectopic gestation	12	5 2
Not stated	12	5 2
Totals	230	99 9

Filing of Certificate of Fetal Death

Table 10 is included merely to show the incompleteness of reporting fetal deaths in New York City The Sanitary Code of the City of New York requires that all products of conception, regardless of length of gestation, be reported on a fetal death certificate to the Department of Health.[7] In this series of 89 fetal deaths, only 52, or 58 per cent, had a fetal death certificate filed with the Department of Health. The group in which there was poor filing of fetal death certificates predominantly included women who aborted or who had ectopic pregnancy

In light of the recently growing interest in the field of developmental pathology, the physician can aid in this investigation and preventive program by supplying at least the detailed information asked for on fetal death certificates [8]

TABLE 10.—STATUS OF FILING OF FETAL DEATH CERTIFICATE WHEN FETAL DEATH OCCURRED

Length of Gestation	Total	Fetal Death Certificate Filed	Fetal Death Certificate Not Filed
Third trimester	41	39	2
Second trimester	4	3	1
First trimester	9	6	3
Unknown*	38	5	33
Totals	92	53	39

* Includes abortions and ectopic pregnancies in early pregnancy

Summary

1 The maternal mortality rate for New York City in 1947 is 1 34 per 1,000 live births

2 Thirty-seven nonpuerperal deaths occurred, correcting the maternal mortality rate to 1 13 per 1,000 live births

3 The maternal mortality rate in the nonwhite group is 3 44 per 1,000 live births, a rate three times higher than that in the white group (1 09)

4 Hemorrhage is the leading cause of death (23 per cent) Cardiovascular disease and anesthesia have emerged as major causes of maternal mortality (third and fifth places, respectively)

5 The hazards of version and cesarean section as modes of delivery are demonstrated

6 The dire consequences of late or erroneous diagnosis of ectopic pregnancy are pointed out

7 Six patients died with spontaneous rupture of the uterus, with operative intervention in only one case, despite survival time ranging from two hours to thirteen days following the diagnosis of rupture

8 The risk of home delivery is shown to be three and one-half times greater than hospital delivery (Maternal mortality rate of 4 7 per 1,000 live births compared to 1 34)

9 The more than 100 per cent greater maternal mortality rate in ward patients versus private patients is shown.

10 The striking fetal wastage in the maternal mortality group versus the city-wide pregnancy wastage is presented

11 The incompleteness of reporting fetal deaths in New York City is shown

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QUESTION VALUE OF RICE DIET FOR SEVERE HIGH BLOOD PRESSURE

Restriction of table salt by the rice diet or other diets does not appear to be of much benefit in treating patients with advanced high blood pressure, a study made by doctors from Washington University School of Medicine, St Louis, shows

"Restriction of sodium chloride in the diet, either by the rice diet or other means, is usually ineffective when the condition is advanced," Henry A Schroeder, M.D , Melvin L Goldman, M.D , Palmer H Futcher, M.D , and Marlene Hunter, B S , of the Department of Internal Medicine of the School and Barnes Hospital report in the June 4 issue of the *Journal of the American Medical Association*

Of 16 patients treated for high blood pressure, response to the rice diet or other low salt diet was poor in 13, most of whom were suffering from the disease in its severer stages Three patients with milder forms of the disease were benefited

As a possible explanation of the beneficial effects of the diet in some cases of high blood pressure, the authors say that patients may have a condition of which high blood pressure is only one symptom

Six other patients, all obese and all having symptoms suggestive of an alteration in some of the functions of the adrenal cortex (the outer portion of the adrenal glands, located at the upper end of each kidney) were treated by the doctors for high blood pressure All were benefited by a low salt diet

THE SURGICAL TREATMENT OF CHRONIC INTRACTABLE PAIN

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THIS report is confined essentially to a consideration of the relief of chronic unbearable pain by the surgical interruption of nerve pathways transmitting or influencing pain impulses for the patient whose pain is not amenable to any other form of treatment

Although such measures are not employed until conservative treatment has been given a satisfactory trial, they cannot reasonably be delayed until the patient has become addicted to narcotics, since relief of pain does not necessarily guarantee cure of drug addiction brought on by pain For a similar reason, the operation should be one capable of bringing maximal results with a minimum of surgery, inasmuch as repeated operations, even more than futile conservative measures, only serve to aggravate an already shattered morale

Anatomy of the Pain Pathway

The type of operation employed in any given case depends on the neuroanatomic substrate of the pain pathway from the involved area and the surgical accessibility of pain fibers, the interruption of which will banish the patient's pain without impairing other important function The following is a brief résumé of the salient anatomic factors involved

Pain impulses originating in the head enter the central nervous system chiefly by way of the trigeminal, glossopharyngeal, and upper three cervical nerves [1] Those arising from the rest of the body enter by way of the spinal nerves

Soon after entering the central nervous system, the fibers conveying pain and temperature impulses separate from those of motor power and position sense, and synapse with the second neuron of the pain pathway in the posterior gray column, whose fibers in turn cross to the opposite side where they ascend in the lateral spinothalamic tract to the thalamus

Thus, we have a neuroanatomic fact of singular clinical significance, a nerve pathway in which pain fibers for a large area are distinctly isolated from those of motor power and position sense which makes possible the relief of extensive, intractable pain without endangering other function.[2]

The emotional coloring imparted to the perception of pain appears to be a function of the frontal cortex, which is looked upon as essentially an afferent center comparable to the visual and auditory cortex [3]

Sites of Interruption of the Pain Pathway

The optimal point at which pain impulses are to be intercepted will depend chiefly on the location of the patient's pain and its extent The following types of pain-relieving procedures have proved useful

Interruption Along the First Neuron.—In general, pains in the head, neck, and trunk and those of limited distribution in the limbs may be relieved by interruption of the first neuron, i e , the peripheral nerve, sympathetic chain, or posterior root Of these, only in the case of sensory root section may regeneration not be expected to take place

Since most peripheral nerves carry both sensory and motor fibers, it is important first to make certain that such interruption will cause no significant disturbance of motor power or position sense Section of posterior roots offers no danger of motor paralysis, but if extensively carried out, as for pain in an entire limb, will leave a useless extremity because of the resulting destruction of the sense of position and movement

Head pains, such as those of trigeminal and glossopharyngeal neuralgia, for example, are more effectively relieved by interruption of pain fibers along the first neuron of the pathway for head pain, i e , by section of the sensory roots of the fifth and ninth cranial nerves, than are pains in the extremities by interruption of their corresponding posterior roots This is because position sense is not a factor to be concerned about when dealing with head pain For a similar reason, some forms of intractable visceral pain, such as that of angina pectoris, may be satisfactorily relieved by posterior root section

Spinothalamic Tractotomy—Effective relief of chronic intractable pain of wide extent can only be accomplished if pain fiber interruption is carried out more centrally, where separation from fibers subserving motor power and position sense has taken place

Such central interruption is quite commonly carried out along the second neuron of the pain pathway, namely, in the spinothalamic tract This tract may be sectioned at the high thoracic, high cervical, medullary or mesencephalic levels Of these, the high thoracic is the safest for section and the level at which operation is most commonly employed Incision there can generally be depended upon to give analgesia up to the level of the xiphoid or nipple

Despite the advanced age of the usual patient undergoing spinothalamic tractotomy and the debilitation resulting from prolonged unbearable pain, the operation is quite well tolerated Cachectic patients, who are poor surgical risks, generally are also not likely to survive long enough for spinothalamic tractotomy to be of much value, and are better treated by liberal doses of analgesic drugs

A possible complication of this procedure is transitory retention of urine, particularly if cord incisions are made bilaterally or too deeply A rare complication is lower limb weakness resulting from inadvertent incision in the region of the pyramidal pathway This tract is readily avoided, yet with effective section of the spinothalamic pathway, if the incision is confined to the area anterior to the dentate ligament and restricted to a depth of 3 mm

If the patient's pain involves the upper extremity, the spinothalamic tract must be interrupted at a high cervical level This is not consistently satisfactory because it involves greater risk to the patient, and, if pain extends as high as the neck and shoulder, the procedure cannot be depended upon to give a sufficiently high level of analgesia

The answer to the problem of high level pain may be furnished by the newly developed procedures of spinothalamic tractotomy in the medulla and midbrain [4 5] Preliminary reports to date are encouraging, and it is likely that the future will bring wider employment of these pain-relieving measures

The conditions in which spinothalamic tractotomy may be indicated include the pains of tabes, phantom limb, peripheral vascular disease, malignancy, and Paget's disease

Case 1 —The efficacy of this procedure in effecting longstanding rehabilitation is illustrated by the case of a thirty-four-year-old transit system investigator, who on February 23, 1943, underwent a gastrectomy for a lymphosarcoma of the stomach Subsequently, he developed sciatic pain and the clinical picture of a cauda equina tumor On June 6, 1947, he underwent a combined thoracic and lumbar laminectomy for an ependymoblastoma involving practically all of the conus and cauda equina The great extent of the tumor required the removal of six laminar arches The tumor itself was removed subtotally, that part of it invading the cord being left behind Postoperatively, intractable left sciatic pain persisted to such an extent that the patient could not get out of bed

Accordingly, on July 3, 1947, a right spinothalamic tractotomy was carried out This resulted in complete relief of pain and a level of analgesia on the left up to the level of the xiphoid The patient was free of pain when discharged on July 27, 1947, and at the most recent follow-up check on November 5, 1948, sixteen months following operation, was still without pain and carrying out effectively his work as a transit system investigator

Thalamofrontal Tractotomy (Prefrontal Lobotomy) —Certain types of pain occasionally fail to respond to any of these forms of treatment This is particularly true in long standing chronic pain associated with secondary narcotic addiction and personality deterioration An individual so afflicted may become free of pain but not necessarily of the drug habit following spinothalamic tractotomy Because of this and the fact that high bilateral pains require a somewhat hazardous and extensive surgery, another approach to some of these cases has been needed

As noted previously, it appears probable that the frontal cortex participates in the phenomenon of pain, particularly as regards its emotional component Although distinctly a matter apart from actual pain perception this component nevertheless plays a role in the response to pain stimuli Thus, anxiety and apprehension may influence the problem of the patient with chronic unbearable pain

This problem has in large measure been met by the relatively simple procedure of thalamofrontal tractotomy, the rationale of which is based on the modification of pain stimulus appreciation by the state of activity of the prefrontal cortex [6] The operation which, like spinothalamic tractotomy, is tolerated quite well by such patients, despite their usual poor condition, may readily be carried out under local anesthesia It involves interruption of the thalamofrontal pathway in each hemisphere in the plane just anterior to the coronal suture and the anterior horn of the lateral ventricle The approach on each side is through a trephine opening, 1 inch in diameter, placed just in front of the coronal suture Postoperatively the patient may be confused and incontinent for about two weeks, by which time, however, he is generally able to leave the hospital The optimal effect of the procedure is usually not reached until the end of a month Unpleasant late side-effects are unusual

This procedure, by freeing the patient of the affective component of his pain, enables him to endure it without mental distress Such a patient although capable of experiencing pain stimuli, actually continues to remain comfortable and cheerful More recently, it has been found that similar results may be obtained with unilateral lobotomy [7]

Although beneficial effects may result from the operation even after drug addiction and personality disintegration have set in, it is preferable to anticipate such progression and spare the patient

a period of unnecessary suffering by carrying out lobotomy before this phase is actually reached

Conditions in which other procedures may be futile and in which prefrontal lobotomy may prove useful include the pains of malignancy, causalgia, phantom limb, and postherpetic neuralgia It has also been found particularly serviceable in cases of intractable pain associated with or based upon an emotional disorder, as illustrated by the following case

Case 2—A fifty-one-year-old housewife was referred for study regarding the advisability of trigeminal sensory root section for a "pulling" pain in the right side of the mouth and face, which had been present for approximately two years and was attributed by the patient to "sinus trouble" Treatment along such lines did not bring about appreciable relief

The past history revealed a background of extensive investigation and treatment based on the diagnosis of an involutional disorder Shock therapy had been utilized, apparently without significant change

Blocking of the right posterior palatine, infraorbital, and posterior superior alveolar nerves with alcohol during the early part of 1948 resulted in an estimated "50 per cent" relief of the patient's pain

When seen on February 17, 1948, the patient continued to complain of pain and behaved in a very lacrimose manner Apart from those referable to the mental sphere, abnormal findings on neurologic examination were minimal—slight hyperesthesia in the region of the right cheek and right upper lip and exquisite tenderness on palpation of the anterior wall of the right maxilla It was felt that the condition was not of the nature of trigeminal neuralgia or sensory nerve irritation and that the pain and emotional disorder might be helped by a prefrontal lobotomy Consultation was had with a psychiatrist who felt that the patient was suffering from involutional melancholia and that, because of the duration of her illness and the rather poor response to shock therapy, not much could be gained by a repetition of this form of treatment

A bilateral thalamofrontal tractotomy was carried out on March 29, 1948, under general anesthesia On regaining consciousness the patient was moderately confused and incontinent for a period of about twenty-four hours, following which she was surprisingly alert, jocular, and convivial She no longer complained of her former pain Psychiatric re-evaluation disclosed that the patient's aggressive hypochondriasis was no longer turned against herself and that she was no longer depressed or lacrimose The patient had an essentially uneventful convalescence, and she was discharged on the sixth postoperative day

A follow-up report from her physician disclosed a continued improvement in the patient's condition Except for a tendency to be "boisterous," her mental status appeared satisfactory Seven months following operation, the patient was still essentially free of the pain that prompted the operative procedure except for an occasional twinge which did not seem to cause her anxiety as in the past She was now able to carry out her domestic duties

Applicability to Malignant Disease

Having considered the sites within the central nervous system that are accessible to surgical attack for the relief of chronic, intractable pain and having mentioned certain disease conditions in which these procedures are applicable, it would seem appropriate to place particular stress on the applicability of such measures in the treatment of the pain of malignant disease, because of its fairly common occurrence in clinical practice, its ability to cause pain in any area of the body, and because it illustrates well the pressing problem of surgical relief

The viewpoint that appears to have found general favor among neurosurgeons is to consider surgical measures for relief of such pain if medical opinion deems the patient's life expectancy too great for effective control by narcotic medication The administration of opiates with an expectancy greater than four months, for example, is likely to be fruitless because of inevitable addiction With shorter expectancy, the use of opiates in preference to palliative surgery should be considered

The following four general groups of cases of painful malignant disease may be categorized from the standpoint of surgical indications for relief

1 Pain below the level of the nipple, for which spinothalamic tractotomy at the first or second thoracic segment is the procedure of choice

2 Head pains resulting from malignancy Many of these can be relieved by section of the sensory root of the trigeminal nerve More extensive involvement will require interruption of the glossopharyngeal nerve as well. In rare cases the sensory portion of the vagus, as well as the upper cervical nerves may have to be interrupted Probably it is preferable in such instances to carry out the far less extensive procedure of thalamofrontal tractotomy Each case thus must be individualized, and the decision as to the amount and type of surgical interruption needed will depend on the preoperative assessment of the extent of the patient's pain distribution

3 Pain in the upper limb such as occurs with cancer of the breast or superior sulcus tumor involving the brachial plexus presents a fairly formidable problem Posterior root section will relieve the pain but leave a useless limb because of the loss of position sense High cervical spinothalamic tractotomy cannot be depended upon to give the high level of analgesia required for the relief of such pain The elaboration of the technic of spinothalamic tractotomy in the medulla or midbrain may ultimately provide the

answer to this specific problem At the present time thalamofrontal tractotomy appears to offer most for such patients

4 For high bilateral pain resulting from malignant disease, probably the safest and most effective procedure is a thalamofrontal tractotomy

In general, a thalamofrontal tractotomy should be considered for any patient suffering from painful malignant disease if the clinical picture is complicated by anxiety and the drug habit Since the individuals afflicted suffer not only pain, but the knowledge or lurking suspicion that their days may be numbered, it is apparent that the proper management of such patients may require more than the relief of pain Lobotomy in such cases serves the twofold purpose of enabling the patient to disregard his pain and of banishing the anxiety and apprehension associated with the underlying disease The resulting freedom from pain may occasionally permit enhancement of intellectual function, and, despite the presence of malignant disease, the general health, as manifested by weight gain, may improve

Summary

The relief of chronic, unbearable pain may be achieved by interruption at specific sites in the nervous system of nerve pathways transmitting or influencing pain impulses

The most suitable procedure for relief of extensive intractable pain below the level of the nipple is a spinothalamic tractotomy By this means the pain fibers supplying a large area can be sectioned through a small incision without concurrent damage to fibers subserving motor power and position sense

Intolerable pain in the head, neck, or trunk may be relieved by sensory root section Interruption of fibers subserving position sense does not offer a problem when dealing with pain in these areas

For high bilateral pain, pain that may require section of too many sensory roots, or pain complicated by narcotic addiction, a thalamofrontal tractotomy is probably the safest and most effective procedure In addition, it serves to banish the anxiety and apprehension that may be associated with the underlying disease

Thalamofrontal tractotomy is also of value in relieving intolerable pain associated with an emotional disorder where local or psychotherapy may fail to help

Sensory root section and spinothalamic and thalamofrontal tractotomy are pain-relieving procedures of proved usefulness, which are well tolerated by patients despite their usual advanced age and the debilitation that may result from prolonged suffering prior to operation

However, appropriate measures of this sort should be instituted before the stage of cachexia is reached, not only so that the patient may still be a reasonably good surgical risk, but also to forestall months of unnecessary suffering and the development of drug addiction

Thus, it may be expected that, if the appropriate procedure is carried out at an optimal time, not only will a gratifying relief of pain ensue for the patient but also, even if pain is due to malignant disease, the general health, as manifested by weight gain, may improve

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RISKS INVOLVED IN USE OF MANY HAIR DYES

Unfavorable reactions to certain hair dyes may be due to a sensitivity which could not be predicted by present methods, says a report of the A M A Committee on Cosmetics, in the May *Hygeia*

Dyes should never be used on a scalp that has breaks in the skin and should never be permitted to get into the eyes Henna and other dyes of vegetable origin are among the safest preparations for *hair coloring* Few cases of sensitivity due to their use have been reported

Reactions to hair dyes are most often characterized by a rash of the scalp, face, and neck. A few have been reported to have caused generalized skin disturbances, disturbances of the eyes, neuralgic pain, headaches, and other complaints

Metallic hair dyes create the illusion that color is being restored to the hair and have been called "hair color restorers" rather than dyes Laboratory and clinical evidence indicates that the metallic salts that make up these dyes are not absorbed through the skin But if they should enter the blood stream through scalp lesions or through contamination of food by *hands which are not washed thoroughly* after use of the dye, the chemical may accumulate in the body and eventually cause symptoms of metallic poisoning, the committee says

THE SIGNIFICANCE OF BLOOD METHYLGUANIDINE IN POLIOMYELITIS

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THE resemblance between poliomyelitis and parathyroid tetany has been pointed out [1] One of the main symptoms which accounts for the similarity between tetany and poliomyelitis is the spasticity The hyperguanidinemia found in parathyroidectomized animals has been suspected of being related to this spasticity, although opinions in this respect are not unanimous Nevertheless, the hypothesis seems justified that the spasticity in poliomyelitis may be related to hyperguanidinemia, and on this basis an investigation of the guanidine content of the blood in postpoliomyelitic cases was undertaken

According to data in the literature, the methylguanidine in the blood of the normal person averages 0 20 mg per cent [2] In order to verify these figures, the methylguanidine content in the blood of 38 normal control patients and two with Parkinson's disease was determined The blood guanidine values were found to vary between 0 15 and 0 20 mg per cent Estimation of methylguanidine in the blood was done by the photometric method of Andes-Myers, described by Levinson and MacFate, which is based on the reaction of the guanidine bases with alkaline nitroprusside ferrocyanide reagent [3]

The normal values having been confirmed by this method, the blood guanidine content of 60 cases of poliomyelitis was determined (Table 1)

A statistical analysis of the results obtained in 60 poliomyelitis patients showed a mean of 0 90 mg per cent and a sigma square (square of the standard deviation) of 0 14

A further analysis of the material led to the separation of two groups (1) 43 cases in which paralysis was of the nonspastic type and (2) 17 cases which showed spasticity or deformities presumably due to spasticity

In the spastic group, the mean of the methylguanidine level is 1 15 mg per cent with a sigma square of 0 10 In the nonspastic group the mean is 0 81 and the sigma square 0 14 The difference between the means of these two groups is 3 6 times the difference of the standard error, hence, the figure is statistically significant

For further analysis the material was divided in two other groups (1) cases in which the disease had lasted for not more than two years and (2) cases which had acquired the poliomyelitis more than two years ago In the first group, there were 26 cases, and in the second group there were 34 In the first group, the mean was 0 95 mg per cent with a sigma square of 0 11 In the second group, the mean was 0 87 with a sigma square of 0 167 Thus, the difference between the two groups is statistically not significant

TABLE 1 —MATERIAL STUDIED

Case Number	Age	Duration	Diagnosis	Amount of Methylguanidine in Blood (Mg Per Cent)
1	14	8 months	Contractures of the right leg	0 90
2	8	12 months	Spastic paraplegia	1 00
3	19	18 months	Flaccid paralysis both legs	0 79
4	20	2 years	Flaccid paralysis right leg	0 50
5	12	4 years	Dropped foot	0 60
6	12	12 months	Spastic contractures of left leg and arm	1 40
7	13	3 years	Mild flaccid paralysis left leg	0 35
8	13	4 years	Paraplegia	0 75
9	15	9 months	Paresis of arms	1 30
10	12	21 months	Spastic hemiplegia	1 40
11	23	2½ years	Paresis left leg	0 88
12	11	8 months	Contractures right leg	1 30
13	14	1 year	Mild paresis right arm	0 35
14	8	16 months	Mild paresis left arm	0 35
15	13	2 years	Paraplegia (spastic)	1 48
16	6	10 months	Paresis left leg right arm	0 75
17	11	3 years	Dropped foot	0 40
18	16	5 years	Paresis of both arms	1 25
19	15	6 months	Paraplegia	1 40
20	32	4 months	Paresis left foot	0 70
21	31	3 years	Mild paresis right arm	0 40
22	40	27 years	Paraplegia with marked muscular atrophy	0 75
23	44	34 years	Paralysis left leg with marked atrophy	1 00
24	27	20 years	Mild dropped left foot	0 70
25	26	20 years	Mild paralysis right leg	0 35
26	16	12 years	Paralysis left leg right arm	1 30
27	36	21 years	Paraplegia (spastic)	1 80
28	16	2 years	Spastic paraplegia	1 00
29	12	1 year	Spastic paresis left leg	0 80
30	18	6 years	Deformities of spine	1 35
31	15	4 years	Paresis of both arms	1 40
32	17	10 years	Mild paresis left leg	0 60
33	18	12 years	Paresis right leg left arm	0 30
34	21	10 years	Serious deformities	2 00
35	10	21 months	Paraplegia (spastic)	1 40
36	21	19 years	Serious spasticity of legs	1 20
37	13	1 year	Spasticity of legs paralysis right arm	1 10
38	13	17 years	Paresis of both arms	0 90
39	15	1 year	Spastic paraplegia	1 00
40	13	2 years	Spine deformities	0 95
41	18	3 years	Paresis right leg left arm	0 35
42	5	1 year	Paresis left arm left leg	0 85
43	4	1½ years	Spastic paralysis left leg	0 80
44	12	2 years	Mild spastic paraplegia	0 90
45	15	1 year	Deformity of trunk	1 20
46	22	9 years	Dropped right foot	0 45
47	12	2 years	Flaccid paralysis left leg	0 35
48	36	20 years	Paralysis right leg (flaccid)	0 60
49	25	15 years	Flaccid paralysis left leg	0 40
50	28	15 years	Spine deformities	0 80
51	6	1 year	Paresis left arm	1 00
52	8	1 year	Spine deformities	1 20
53	28	15 years	Paraplegia	0 40
54	32	20 years	Flaccid paraplegia with advanced muscular atrophy	0 70
55	33	21 years	Paralysis left arm right leg	0 80
56	20	10 years	Paraplegia	0 95
57	25	15 years	Spine deformities	1 00
58	15	2 years	Neck deformities	1 40
59	7	2 years	Paresis right arm	0 65
60	12	5 years	Paresis right arm, left leg	0 75

Discussion

An increase in blood guanidine is not a unique phenomenon limited to cases of poliomyelitis High values have been found in tetany, spasmophilia, rickets, muscular dystrophy, eclampsia, hypertension, renal insufficiency, epilepsy, and liver damage Most of these conditions are characterized either by manifestations of convulsive seizures, as in spasmophilia, eclampsia, and epilepsy, or by muscular atrophy, as in rickets and muscular dystrophy, or by spasticity of the smooth musculature, as in hypertension Experimental work also seems to point out the spastic effect of high blood methylguanidine levels [2] Intramuscular injection of a 5 per cent methylguanidine solution into experimental animals induces convulsions, twitching, and finally death [4]

The cause of hyperguanidinemia is not certain According to MacFate, it is probable that the level of blood guanidine depends upon the activity of the centers of detoxication [5]

The formation of methylguanidine in the body is still a moot question, but it is likely that this product occurs within the muscular fibrils by means of oxidation of creatin

Disturbances of metabolism in the muscle tissue, involving the metabolism of creatinine or creatinine phosphate which might give rise to the formation of guanidine, are usually part of a systemic metabolic disorder such as hypoglycemia [6]

That hypoglycemia plays a role in the susceptibility to poliomyelitis has been claimed long ago, for susceptibility to poliomyelitis in rabbits could be induced by injections of insulin and the subsequent lowering of the blood sugar level [7] Other experimental work is in keeping with this view Monkeys, injected with the virus of infantile paralysis, if put in rotating cages and subjected to exhausting exercises develop a higher incidence and a more severe morbidity than the controls [3] It is a well-known fact that muscular overexertion can cause hypoglycemia Experimental work by Draper and Aycock has led to the belief that susceptibility to poliomyelitis is related to hormonal imbalance, and this is in keeping with clinical observations which indicate that the pituitary, surrenale, and thyroid glands are capable of influencing carbohydrate metabolism [8 9]

In view of the fact that the virus of poliomyelitis has been demonstrated in children or adults who were in contact with patients affected with this disease but who did not acquire the illness, it seems evident that the presence of the virus in the body alone is not enough to produce the disease Hence, it is necessary to postulate another factor which breaks down the natural resistance of the body and permits the virus to become actually pathogenic Epidemiologic studies show that physical overexertion, indulgence in foods rich in carbohydrates, acute infections, and liver insufficiency are likely to open the path for polio virus [3 10] All these conditions, however, by themselves or in connection with a functional disorder of the endocrine glands are likely to produce hypoglycemia

Thus, the role of hypoglycemia would be twofold first, it increases susceptibility to the disease, and second, by contributing to the higher blood guanidine level, it induces spasticity and becomes responsible for complicating features of the disease On this basis the study of preventive measures on a larger material is desirable This would include (1) restriction of outdoor exercise during the summer months in times of polio epidemics and (2) dietary measures to correct hypoglycemic tendencies

Among the early manifestations of poliomyelitis which should be combated most vigorously, spasticity ranks in the fore This can be achieved successfully by intravenous injections of calcium or of intramuscular injections of antitetanus serum which is likely to neutralize the effects of methylguanidine and thus control spasticity In 40 patients of the series reported in this paper, the injection of 20,000 units of the antitetanus serum every three hours showed a beneficial effect, especially in severe early cases.

Conclusion

The methylguanidine content of the blood was investigated in 60 cases of poliomyelitis A substantial increase was found in all cases

The blood level was particularly high in the spastic cases, the difference between the mean of the spastic and the nonspastic cases was statistically significant

The role of hyperguanidinemia in poliomyelitis is discussed and correlated with disturbances of carbohydrate metabolism

The significance of hypoglycemia for the susceptibility to poliomyelitis in experimental animals and humans is pointed out

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EXPERIENCES WITH ANTICOAGULANT THERAPY

RAYMOND J BOLLER, M D , THOMAS QUIGLEY, M D , ROBERT C TARPEY, M D , and BASIL HARRIS, M D , New York City

(From the Medical Service of St Vincent's Hospital)

EVER since 1941, when Dicumarol, the active principle of spoiled sweet clover causing hemorrhagic disease of cattle, was isolated by Link and his associates at the University of Wisconsin, a new approach has been made to the treatment of thromboembolic disease [1] The following years have seen many reports in the medical literature concerning the successful use of Dicumarol alone or in conjunction with heparin in combating thrombotic emergencies Most of the work has been carried on in private institutions where control of patients and drugs and laboratory work has been under optimal conditions The patients too have been, on the whole, in good general health Because of the early unfavorable reports in the literature regarding complications, general hospitals have been reluctant to adopt this therapy as a routine procedure

Slightly over one year ago, a standard laboratory procedure (Shapiro) was adopted in the determination of prothrombin time at this hospital It was our privilege to be permitted to follow all service cases in the hospital that required the use of anticoagulants

The general procedure in administering Dicumarol is to obtain an initial prothrombin time and give 300 mg of the drug on the first day, 200 mg on the second day, and 50, 100, and 200 mg on each succeeding day, depending on the daily prothrombin result The normal prothrombin time for our laboratory is fifteen to seventeen seconds, using rabbit lung as the thromboplastic substance Twenty-two seconds represent a 30 per cent prothrombin concentration, 26 seconds a 20 per cent prothrombin concentration, and 40 seconds a 10 per cent prothrombin concentration An effort is made to keep the prothrombin time between twenty-eight and thirty-five seconds (15 to 18 per cent prothrombin concentration) When a daily prothrombin time is reported above thirty-five seconds, no Dicumarol is given, when between twenty-eight and thirty-five seconds, 50 to 100 mg are given, when the prothrombin time is below twenty-eight seconds, 100 to 200 mg may be given.

In an emergency, where an immediate anticoagulant response is required, 50 mg of heparin are given intravenously every four hours for thirty-six to forty-eight hours until the prothrombin time has reached a therapeutic level by means of concomitantly administered Dicumarol It is felt that clotting times are not necessary This is in accord with Bauer and other workers [2,3]

Material

In twelve months, 85 patients were treated with Dicumarol alone or in conjunction with heparin (Table 1) There were three deaths from pulmonary embolism One of these occurred after Dicumarol was discontinued because the patient had subacute bacterial endocarditis Another occurred in a patient with an acute myocardial infarction during the first day of anticoagulant therapy The third death occurred in an elderly, debilitated cardiac who had auricular fibrillation but was given Dicumarol because of the presence of a thrombophlebitis There were no deaths that could be directly attributed to hemorrhage

TABLE 1 —TYPES OF THROMBOEMBOLIC DISEASE TREATED WITH ANTICOAGULANTS

Venous thrombosis	45
Acute myocardial infarction	25
Peripheral arterial thromboembolic disease	7
Cerebral thromboembolic disease	4
Auricular fibrillation (conversion to regular rhythm)	4
Total	85

It is interesting to note in this series of 85 patients that the original or starting prothrombin time was over twenty seconds in 15 patients and nineteen to twenty seconds in 13 patients (our normal range being fifteen to seventeen seconds) There was no direct relationship of bleeding from Dicumarol to the original prothrombin state of any of these patients When the original prothrombin time was above our normal range, however, greater caution was used and smaller doses of the drug administered

Venous Thrombosis —There were 45 patients treated for venous thrombosis This group was composed of 17 patients having phlebothrombosis and 28 patients having thrombophlebitis Eighteen occurred in medical patients, 27 patients were nonmedical. A further grouping in the surgical specialties is illustrated in Table 2

In this series of cases of venous thrombosis, there were 21 men and 24 women

Figure 1 illustrates the distribution of cases of venous thrombosis according to age As reported by other workers, the greatest number of

Discussion

An increase in blood guanidine is not a unique phenomenon limited to cases of poliomyelitis High values have been found in tetany, spasmophilia, rickets, muscular dystrophy, eclampsia, hypertension, renal insufficiency, epilepsy, and liver damage Most of these conditions are characterized either by manifestations of convulsive seizures, as in spasmophilia, eclampsia, and epilepsy, or by muscular atrophy, as in rickets and muscular dystrophy, or by spasticity of the smooth musculature, as in hypertension Experimental work also seems to point out the spastic effect of high blood methylguanidine levels [2] Intramuscular injection of a 5 per cent methylguanidine solution into experimental animals induces convulsions, twitching, and finally death [4]

The cause of hyperguanidinemia is not certain According to MacFate, it is probable that the level of blood guanidine depends upon the activity of the centers of detoxication [5]

The formation of methylguanidine in the body is still a moot question, but it is likely that this product occurs within the muscular fibrils by means of oxidation of creatin

Disturbances of metabolism in the muscle tissue, involving the metabolism of creatinine or creatinine phosphate which might give rise to the formation of guanidine, are usually part of a systemic metabolic disorder such as hypoglycemia [6]

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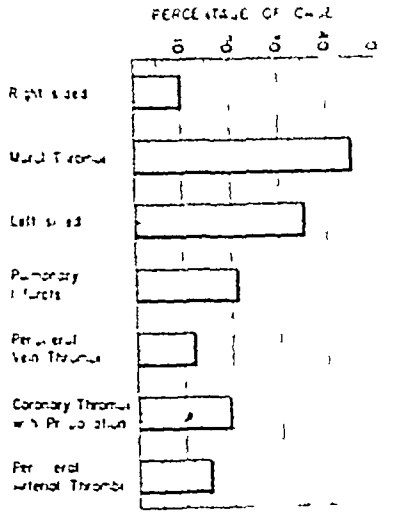


FIG. 2.—Graphic demonstration of thromboembolic findings in 100 cases of coronary thrombosis with myocardial infarction (postmortem study). Average age at death: Male (72 cases)—58 years. Female (28 cases)—62 years. Average hospitalization—9 days.

per cent in whom the cause of death could not be specifically ascertained. With the knowledge drawn from our autopsied series of myocardial infarction, it seems fair to assume that a large part of the 36 deaths in the clinical group were due to thromboembolic complications.

Unfortunately, thus far only 25 cases of myocardial infarction have been treated by anticoagulants during their hospital course. In the beginning of our study only the more serious cases were given Dicumarol, the feeling being that these cases were entitled to every available form of therapy. The trend, however, in the last six months throughout the country has been that all myocardial infarctions will be benefited by the administration of Dicumarol during their hospital stay. That is the course which we hope to follow in the future and shall subsequently report.

All of the 25 cases of myocardial infarction presented typical histories of an acute episode, and the subsequent course, clinical findings, and laboratory data, including electrocardiograms, confirmed the diagnosis. One patient had a pulmonary embolism twenty-four hours after the myocardial infarction and before Dicumarol was effective. The patient had no further thrombotic complications and survived. Another patient had a pulmonary embolism on the fourth day of his illness and the first day of anticoagulation (heparin and Dicumarol). He expired as a result of this episode. Unfortunately, no postmortem examination was obtained. No other thromboembolic complications were encountered in these 25 cases, the percentage of thromboembolic complications being 4 per cent. Seven (28 per cent) of the patients died. Four of these were autopsied, and no evidence of mural thrombi or peripheral thrombi was noted. Since anticoagulant therapy was not employed in every established case of coronary thrombosis during the year, we feel our mortality rate is unduly high.

There were two instances of gastrointestinal bleeding in these 25 cases, one in a patient having a previously diagnosed peptic ulcer and the other in a patient having Laennec's cirrhosis. Therapy adequately controlled the bleeding in the first case. No active measures were undertaken for the second patient. The outlook was entirely hopeless. Autopsy revealed a massive anterior wall myocardial infarction with septal involvement, tiny ulcers of gastric mucosa, and tarry stool in the intestines.

Heparin was used in conjunction with Dicumarol in only three cases of myocardial infarction. Its necessity in these cases is questionable. The work of Mallory placed the usual development of mural thrombi following myocardial infarction on the sixth postinfarction day.[11] His studies further showed the sixteenth postinfarction day as the time when the mural thrombus is probably organized. It is interesting though that the only pulmonary emboli encountered in this series occurred on the first and fourth days after the onset of the acute myocardial infarction.

Cerebral Thromboembolic Disease.—In the past year, four cases of cerebral thromboembolic disease were treated with Dicumarol. Three of these were cerebral emboli occurring in patients who had auricular fibrillation. The fourth patient was a hypertensive who had suffered an earlier left cerebral thrombosis and two weeks later developed a left hemiplegia. Dicumarol was administered for two weeks with excellent result, the left side of the body regaining function on the fourth day of therapy.

In all of these cases, the presence of cerebral hemorrhage was excluded by history, clinical course, and lumbar puncture. The advisability of the use of anticoagulants in cerebral thromboembolic disease must await further trial, especially since a normal lumbar puncture may be obtained in the presence of cerebral hemorrhage.

TABLE 3.—CLINICALLY DETECTABLE THROMBOTIC COMPLICATIONS OF ACUTE MYOCARDIAL INFARCTION (100 CASES) IN PREANTICOAGULATION ERA

Pulmonary infarction	9
Cerebral arterial thrombosis-embolus	3
Peripheral arterial embolus	1
Second coronary	1
Phlebitis	0
Total	14

TABLE 2.—NONMEDICAL CASES OF VENOUS THROMBOSIS ACCORDING TO SPECIALTY FIELD

Orthopedic	8
Abdominal surgery	6
General surgery	5
Gynecologic	3
Neurologic	2
Genitourinary	2
Obstetric	
Postpartum	1
Antepartum	1
Total	27

thrombotic emergencies occur beyond the fifth decade with the greatest incidence in the seventh decade [4] The majority of the nonmedical patients experienced venous thrombosis between the fifth and fifteenth postoperative days

Our results with anticoagulants have been most successful In the 45 patients treated for venous thrombosis, ten had suffered pulmonary emboli before anticoagulants were administered After anticoagulation was started, there were three instances of embolization, two of which were cited above It was felt in the first case that, because of the presence of subacute bacterial endocarditis and its known tendency to cause spontaneous hemorrhagic phenomena, the drug should be discontinued Autopsy examination of the second case of venous thrombosis, which had also had auricular fibrillation, revealed a large thrombus in the right auricle, the probable site of the fatal embolus The third instance of embolism was cerebral The patient received Dicumarol for a deep vein thrombosis The patient also had arteriosclerotic heart disease with auricular fibrillation The latter condition was undoubtedly responsible for the cerebral accident Dicumarol therapy was continued without any further misfortune in this case Two instances of hemorrhagic complications were encountered One patient developed gross hematuria at a time when the prothrombin time was sixty-six seconds Vitamin K was administered intravenously in 72-mg doses at four-hour intervals, and the urine was grossly clear in twenty-four hours Dicumarol therapy was continued without further incident A second patient with a venous thrombosis of the deep veins of the leg developed a large hematoma along the medial aspect of the affected thigh. A review of her history, hospital course, and laboratory studies disclosed a vitamin C deficiency The latter was administered along with anticoagulants without any further trouble.

Vitamin K was administered on three occasions to patients having extremely high prothrombin time, in whom hemorrhage was thought to be more likely to occur On several occasions in these cases of venous thrombosis, occasional to ten red blood cells were reported in the microscopic urine analyses No active measures were taken in such instances

It is interesting to note that one of the cases of venous thrombosis was a twenty-three-year-old prenatal patient She developed a phlebothrombosis with subsequent benign pulmonary embolism This occurred in the fifth month of pregnancy Anticoagulants (heparin and Dicumarol) were administered successfully

Myocardial Infarction.—The interesting reports of Peters, Barker, and Wright on the use of anticoagulants in the treatment of myocardial infarction have certainly given hope for the future that fatal pulmonary embolism and venous thromboses, which often complicate this clinical state, may be prevented [5–7] The literature is replete with statistics showing the incidence of mural thrombi, pulmonary emboli, and arterial and venous thrombosis complicating acute myocardial infarction The incidence of mural thrombi in myocardial infarction is especially high, the estimates varying from 17 to 83 per cent [8–10]

A review of 100 consecutive autopsies of patients having had coronary thrombosis with myocardial infarction at this hospital prior to institution of anticoagulant therapy showed a 45 per cent incidence of mural thrombi, 35 per cent of which were left-sided and 10 per cent right ventricular Twenty per cent of these patients had pulmonary infarction Figure 2 clearly illustrates this analysis

The postmortem incidence of thromboembolic disease complicating myocardial infarction is striking Almost equally significant is a review of the occurrence of thromboembolic phenomena in myocardial infarction, as seen clinically One hundred cases of clinically diagnosed myocardial infarctions, prior to institution of anticoagulants, confirmed by electrocardiographs and the usual diagnostic aids, were reviewed Fourteen of these patients developed thrombotic complications clinically detectable (Table 3) Eight of these patients died as a result of these complications The mortality of these 100 cases of myocardial infarction was 36 per cent, leaving 28

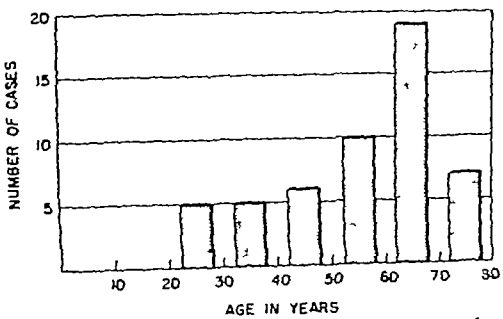


FIG 1 Incidence of venous thrombosis according to age

RATIONAL THERAPEUTICS OF INTESTINAL OBSTRUCTION IN INFANCY

D H Manfredi, M D , New York City

(From the Children's Surgical Service, Bellevue Hospital)

AMONG the most urgent emergencies occurring in infancy, there are few that require more rapid surgical attention than cases of acute intestinal obstruction Disturbances in the anatomy and delicately balanced physiology of an infant occur with such accelerated speed that the threat to life is forever present

In this review of 55 cases of intestinal obstruction occurring in infants under two years of age, the primary cause of the condition was an incarcerated hernia All the infants were admitted to the Children's Surgical Service of Bellevue Hospital Rational therapeutic procedures in the treatment of these lesions are based on a knowledge of the disturbed physiology which the obstructive lesion creates This paper will discuss the treatment to eliminate the obstruction and the correction of the physiologic disturbances

Intestinal obstruction has been defined as a condition in which there exists a cessation of the normal forward motion of intestinal contents long enough to produce local and systemic pathologic effects The condition may be produced by occlusion of the intestinal lumen, diminution of peristalsis, or interference with blood supply One of the aforementioned conditions or combinations of them always exists in cases of intestinal obstruction *Once stasis occurs intestinal* distention follows

This distention is due to an accumulation of gas and fluids in the obstructed portion of bowel The gas originates from three sources—from the gaseous interchange from blood flowing through the thin wall, from the action of bacteria in the intestinal contents, and from swallowed air The fluid contents come from ingested fluids, the secretion of intestinal glands, and from the fluid fraction of blood

Distention is a powerful stimulus to transudation from the blood into the bowel There results a loss from the circulating blood of its salts, fluids, water, plasma and its constituents, and chlorides The tissue spaces, or extracellular reservoir, must then give up their fluids to restore the circulating blood volume

The water requirements of an infant are 100 to 150 cc per Kg of body weight The water needs are greater than in an adult due to the poor concentrating ability of the immature kidneys, the greater metabolic requirements due to a larger surface area per unit of body weight, and factors of growth activity From Fig 1, it can be seen that the extracellular fluid is easily depleted in an infant, because it is only twice the daily total intake An adult has a great deal more in reserve, almost seven times his total daily intake Almost as important as fluid loss is the disturbance in acid-base balance When the kidney excretes an excessive amount of sodium ion, a proportionate amount of water must be excreted, further dehydrating the tissues If the interstitial reservoir of fluids is exhausted, depletion causes dehydration and death Emesis, which is related to the intestinal distention and caused by reflex and mechanical factors, causes the infants to lose not only the fluid that they should be imbibing but also that fluid and electrolyte in the vomitus

Symptoms of dehydration depend upon the rapidity with which it occurs and the relative loss of water and salts When the change is rapid, an increase in the viscosity of blood takes place with concentration of both cellular and protein elements, and there is no time for compensation for the diminution in blood volume Death may occur solely from a reduction in body fluids and salts

From the age distribution chart, it can be seen that over *fifty* per cent of this series of cases occurred in the early months of life (Table 1) This fact may give rise to the belief that herniation through a relatively narrow opening at the site of the internal ring offers greater opportunity for incarceration and obstruction than does herniation through a wider gaping internal inguinal ring Tables 2 and 3 indicate the

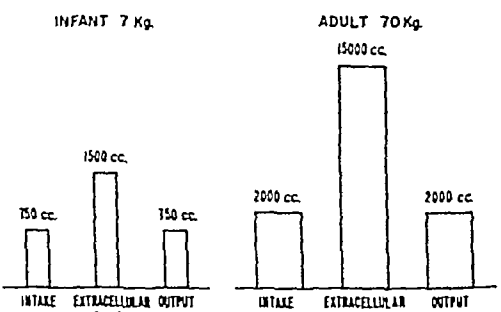


FIG 1 Average daily fluid intake and output

Peripheral Arterial Thromboembolic Disease—There were seven cases of peripheral arterial thromboembolic disease in this series Four of this group had emboli to a lower extremity The emboli were probably from the left auricle, since the four patients had auricular fibrillation—three on a rheumatic basis and the other an *arteriosclerotic cardiac* The extremities in each case were saved by medical treatment

The remaining three patients in this group had arterial occlusions, apparently on a thrombotic basis, associated with infection Two of these patients required subsequent amputation Anticoagulant therapy was administered postoperatively without further thrombosis The *third patient of this group* was an elderly man who suffered multiple fractures of both lower extremities and pelvis He succumbed of congestive heart failure after about one week of heparin therapy

Arterial Thromboembolic Emergencies and Auricular Fibrillation—Our procedure in treating arterial thromboembolic emergencies follows the same general pattern advocated by Allen [12] As soon as the diagnosis is made, a paravertebral block is performed, and blood is drawn for a prothrombin time, Heparin is administered immediately intravenously and continued every four hours, until the prothrombin time is influenced by Dicumarol If, however, no appreciable success is noted after the paravertebral block and heparin administration, surgery for embolectomy is contemplated Papaverine is also administered along with other supportive measures

In this group there was one case of bleeding due to Dicumarol Gross hematuria was noted when the prothrombin time was eighty-five seconds, vitamin K was given intravenously every four hours for four doses Twenty-four hours later, the prothrombin time was twenty-eight seconds and the urine grossly clear

Dicumarol has also been administered by us to patients having auricular fibrillation in whom conversion to regular rhythm was attempted Thus far, five patients have received anticoagulants in this process One patient developed a right hemiparesis, and the quinidine was stopped The remaining four patients were converted from fibrillation to regular rhythm without embolic mishap Further investigation is necessary to determine the value of Dicumarol in conversion from auricular fibrillation to regular rhythm, however

Full dosage of Dicumarol should be curtailed and the drug probably not given in the presence of hepatic disease, renal insufficiency, and poor nutritional state Anticoagulant therapy is contraindicated in multiple stage operations, ulcerative diseases, recent brain or spinal cord operations, and blood dyscrasias

From our observations in the past year anticoagulant therapy has its place in any general hospital, provided the laboratory standards are reliable The wide variety of patients encountered on a general service makes one doubly cautious of bleeding complications, since many patients will have abnormal initial prothrombin times Despite this, there is no reason to withhold anticoagulants provided adequate supervision is maintained

Summary

1 Experience with the use of anticoagulant therapy in 85 cases in a general hospital is presented

2 General measures in the control of Dicumarol and heparin are discussed

3 Forty-five cases of venous thrombosis were treated Ten of these patients had pulmonary emboli before anticoagulation was started One instance of fatal pulmonary embolism occurred while on Dicumarol. This patient also had auricular fibrillation, and postmortem examination revealed a large thrombus in the right auricle

4 One hundred clinical cases of myocardial infarction were studied, and the incidence of thromboembolic complications were compared with 100 in which the diagnosis was established postmortem Both groups were in the preanticoagulant period

5 Twenty-five cases of myocardial infarction treated with anticoagulants were reviewed In these cases only one death occurred from embolic complication and that on the first day of anticoagulant therapy No other thromboembolic complications were encountered

6 Seven cases of peripheral arterial thromboembolic diseases were treated

7 The treatment in cerebral thromboembolic disease and auricular fibrillation is discussed Further investigation in these fields is indicated to evaluate properly the efficacy of anticoagulant therapy for these conditions

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This distention is due to an accumulation of gas and fluids in the obstructed portion of bowel The gas originates from three sources—from the gaseous interchange from blood flowing through the thin wall, from the action of bacteria in the intestinal contents, and from swallowed air The fluid contents come from ingested fluids, the secretion of intestinal glands, and from the fluid fraction of blood

Distention is a powerful stimulus to transudation from the blood into the bowel There results a loss from the circulating blood of its salts, fluids, water, plasma and its constituents, and chlorides The tissue spaces, or extracellular reservoir, must then give up their fluids to restore the circulating blood volume

The water requirements of an infant are 100 to 150 cc per Kg of body weight The water needs are greater than in an adult due to the poor concentrating ability of the immature kidneys, the greater metabolic requirements due to a larger surface area per unit of body weight, and factors of growth activity From Fig 1, it can be seen that the extracellular fluid is easily depleted in an infant, because it is only twice the daily total intake An adult has a great deal more in reserve, almost seven times his total daily intake Almost as important is fluid loss is the disturbance in acid-base balance When the kidney excretes an excessive amount of sodium ion, a proportionate amount of water must be excreted, further dehydrating the tissues If the interstitial reservoir of fluids is exhausted, depletion causes dehydration and death Emesis, which is related to the intestinal distention and caused by reflex and mechanical factors, causes the infants to lose not only the fluid that they should be imbibing but also that fluid and electrolyte in the vomitus

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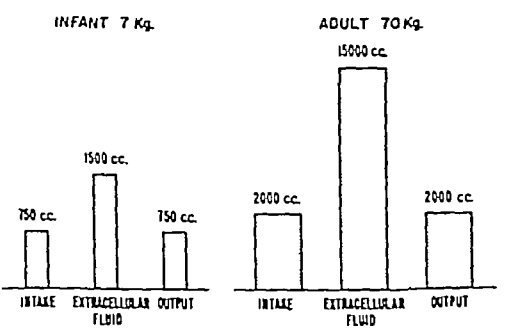


FIG 1 Average daily fluid intake and output.

TABLE 1.—AGE AND SEX DISTRIBUTION

Age (Months)	Number of Cases	Per Cent
1*	9	15
2	8	14
3	8	14
4	2	3
5	5	8
6	1	2
7	1	2
8	1	2
9	2	3
10	2	3
11	2	3
12	1	2
13	1	2
14	1	2
15	1	2
16	1	2
17	1	2
18	1	2
19	0	0
20	0	0
21	0	0
22	0	0
23	3	5
24	7	12
Sex		
Male	51	88
Female	7	12

* Or less

TABLE 2.—LOCATION OF HERNIA

Site	Number of Cases	Per Cent
Right inguinal	40	69
Left inguinal	15	26
Umbilical	2	3
Bilateral	1	2

TABLE 3.—CONTENTS OF HERNIAL SAC AT OPERATION

Organ	Number of Cases	Per Cent
Small intestine	25	43
Large intestine	5	8
Tube and ovary	2	3
Testicle	1	2
Omentum	6	10
Appendix	8	14
Bladder	2	3
Liver[1]	1	2
Not seen	10	16

location of the hernias and the contents of the hernial sacs at operation

There were 48 cases, or 82 per cent, that had a history of a previous mass being present before incarceration occurred Any case with a history of a previously existing hernia that develops pain and emesis must be suspected of an early intestinal obstruction due to an incarcerated hernia Vomiting occurred in 92 per cent of the total number of cases and should call for investigation of the inguinal rings

There were no cases in which the intestine per se had become necrotic However, two appendices had become necrotic, and an appendectomy was performed during the herniorraphy

One tube and ovary became gangrenous when entrapped in the hernia and required resection A part of the omentum became gangrenous in one case when it became incarcerated in the hernia sac

No case was reduced following gentle taxis which was tried in 48 per cent of the cases One case reduced spontaneously during the administration of the anesthetic

There were four postoperative deaths in this series One infant with an incarcerated umbilical hernia died postoperatively at five days of age One infant with right inguinal hernia died of status lymphaticus One infant with right inguinal hernia died postoperatively of scarlet fever, and one infant with a left inguinal hernia died of postoperative pneumonia

The operation performed prior to 1927 was a Bassini type of repair The most common technic used at present is the high ligation of the hernia sac with no plastic repair of the canal Cotton or silk suture material is used The correction of the infant's fluid balance preoperatively is stressed, and lastly, gentleness, patience, and surgical skill must be exercised in handling the delicate tissues

Summary

The importance of restoration of the physiologic fluid and electrolyte balance is emphasized Any organ in the peritoneal cavity may become entrapped in an irreducible hernia sac Rapid surgical attention to correct the disturbances in the chemical status of the infant and elimination of the obstructive lesion are the rational therapeutic procedures necessary in treating infants with acute intestinal obstruction

642 PARK AVENUE

Dr Howard Lester resident at Bellevue Hospital assisted in the collection of data for this report

Reference

1 Manfredi D H. NEW YORK STATE J MED 48 1400 (June 15) 1948

CANINE ERUDITION

A woman went to buy a drinking bowl for her dog, and the shopkeeper asked her if she would like one with the inscription, "For the dog"

"It really doesn't matter," she replied "My husband never drinks water, and the dog can't read"—*Exchange*

THE INCIDENCE OF VALVULAR HEART DISEASE IN PEOPLE OVER FIFTY AND PENICILLIN PROPHYLAXIS OF BACTERIAL ENDOCARDITIS

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FOR some time it has been recognized that subacute bacterial endocarditis may develop in persons with rheumatic or congenital heart disease following operative and diagnostic procedures such as tooth extraction and cystoscopy With the advent of sulfonamides and, more recently, penicillin, it has become routine to administer the antibiotic to persons with such heart disease prior to and following manipulation [1-4] This method has usually been reserved for patients with obvious rheumatic or congenital heart disease, most of whom are in the younger age groups However, the problem is actually much greater since it is becoming increasingly evident that subacute bacterial endocarditis often occurs in persons over the age of fifty and in persons in whom disease is present but not obvious [1 5,6] This is indicated by recent autopsy studies which have shown a surprisingly high incidence of valvular lesions, rheumatic and sclerotic, in older persons Clinically this valvular disease is often evidenced by a loud, blowing apical systolic murmur, although the remainder of the cardiac examination is not infrequently negative

This study was undertaken with a threefold purpose (1) to determine the incidence of valvular damage in older age groups, clinically and pathologically, (2) to consider the advisability of administering penicillin to elderly persons undergoing various diagnostic and operative procedures when valvular disease is suspected, and (3) even routinely when heart disease is not believed to be present

In the older age group it is occasionally difficult to determine the etiologic background of valvular disease, that is, to distinguish between rheumatic and Monckeberg or arteriosclerotic lesions [7-13] The latter usually attacks only the aortic valve, the mitral valve being involved infrequently In favor of a rheumatic etiology is the presence of stigmata of an extinct rheumatic process such as endocardial thickening, increased vascularity of the subendocardium, increase of endocardial smooth muscle, vascularization and thickening of the valves, fusion at the aortic commissures, formation of collagenous plaques at the line of closure, and evidence of pericarditis [11] In favor of an arteriosclerotic lesion is the finding of atheromatous plaques with calcification in the absence of the above changes This is particularly true in isolated lesions of the aortic valve and ring without mitral valve changes The pathogenesis of calcific disease of the aortic valve has been a moot question in numerous investigations, but the recent study of Karsner and Koletsky would seem definitely to place it, with few exceptions, among the sequelae of rheumatic fever [14] This may also be true of other valvular lesions not obviously rheumatic in origin

In order to determine the incidence of valvular lesions in older persons, figures were compiled from necropsy protocols at the Mount Sinai Hospital in 406 consecutive patients, fifty years of age and older (Table 1) The criteria noted above were utilized in determining rheumatic or arteriosclerotic etiology [11-13] Anatomic evidence of heart disease was noted in 342 cases Rheumatic lesions were present in 176 cases (51 5 per cent) and arteriosclerotic heart disease was predominant in 133 cases (38 9 per cent) The remainder included three cases of congenital, three syphilitic, seven pulmonary, six hypertensive, and 14 miscel-

TABLE 1 —AGE INCIDENCE AND TYPE OF HEART DISEASE IN 406 CONSECUTIVE AUTOPSIES IN PATIENTS FIFTY YEARS OR OLDER

Type of Heart Disease			Age Incidence (Years)			
Heart Disease	Total Number	Per Cent of Total	50 to 59	60 to 69	70 to 79	80 to 89
Rheumatic	176	51 5	66	77	25	8
Arteriosclerotic	133	38 9	42	63	27	1
Syphilitic	3	9	2	1	0	0
Congenital	3	9	2	1	0	0
Pulmonary	7	2 0	0	5	2	0
Hypertensive	6	1 7	3	3	0	0
Miscellaneous*	14	4 1	7	5	2	0
	342	100 0				
No heart disease	64					

* Parenchymatous degeneration in malignant disease six cases lymphosarcoma two cases beriberi (?) one case tuberculosis two cases leukemia two cases and agranulocytosis one case

TABLE 2.—Valvular Heart Disease in 406 Consecutive Autopsies in Patients Fifty Years or Older

Heart Disease	Number of Cases	Mitral Alone	Aortic Alone	Mitral and Aortic	Mitral and Tricuspid	Pulmonary and Aortic	Mitral Aortic Pulmonary	Mitral Aortic Tricuspid	Total Valve Involvement
Rheumatic	176	70	2	90	4	1	4	5	176
Arterial	133	2	32	13	0	0	0	0	47
Syphilitic	3	0	3	0	0	0	0	0	3
Congenital	3	0	0	0	0	0	0	0	0
Hypertensive	6	0	0	0	0	0	0	0	0
Pulmonary	7	0	0	0	0	0	0	0	8
Miscellaneous	14	6	0	2	0	0	0	0	0
Total	342	78	37	105	4	1	4	5	234

aneous heart disease In these 342 cases with heart disease, valvular damage was present in more than half the patients

Of the 234 instances of valvular heart disease, 176 were rheumatic (75 per cent), 47 arteriosclerotic (20 per cent), and 11 were grouped as miscellaneous In the rheumatic cases the mitral valve only was involved 70 times, the aortic valve only twice, and both valves in 90 cases (Table 2) The mitral and tricuspid valves were altered in four cases and the mitral, aortic, and tricuspid valves in five Five cases of minimal lesions of the mitral leaflets (thickening at the line of closure) were included because of other evidence, such as involvement of the chordae tendineae or lesions of the left auricular wall The damage in the remainder of valvular lesions varied from marked thickening of the valves to all of the usual manifestations of chronic rheumatic valvulitis

The mitral valve was thus involved 196 times or almost half (48 per cent) of the entire 406 cases studied This points to the significance of an apical systolic murmur in persons in the older age group, as has been stressed by Master who is of the opinion that unless disproved a loud blowing systolic apical murmur is indicative of an organic lesion [15,16] Furthermore, a valvular lesion may be present without producing a murmur While rheumatic valvular disease is the commonest precursor of bacterial endocarditis, it has been shown clinically and experimentally that the latter may occur in other types of valvular lesions in the presence of bacteremia [2 17-19] These include sclerotic degenerative changes in the valve and those following coronary occlusion, as well as nonbacterial collagen and thrombotic alterations

In the 47 cases of arteriosclerotic heart disease with valvular lesions, features other than rheumatic predominated, or a rheumatic etiology could not be ascertained The mitral valve alone was involved in two cases, the aortic valve alone in 32 cases, and both in 13 cases

In view of the high incidence of valvular damage in older persons, it is obvious that they are susceptible to the development of bacterial endocarditis in the presence of bacteremia Zeman and Bayles and Lewis found pre-existing rheumatic heart disease in approximately 60 per cent of their cases of subacute bacterial endocarditis over forty [1 6] In the remaining cases, arteriosclerotic, luetic, congenital, or thyrotoxic heart disease was present

Pursuing the subject of the etiologic substrata of subacute bacterial endocarditis, we reviewed 20 cases of this disease in patients over fifty years old Nine showed previous rheumatic disease seven of these on postmortem examination. Six other cases were considered arteriosclerotic on clinical grounds, although a rheumatic basis could not be definitely excluded in the absence of pathologic study In one case syphilitic, in one case congenital, and in two instances undetermined types of heart disease were found In the last case no evidence of previous disease was present

We then studied the background of 11 cases of acute bacterial endocarditis in patients over fifty years of age Six presented chronic rheumatic heart disease, and in two arteriosclerosis was present In two cases there was no pre-existing heart disease, and in one case heart disease of undetermined origin was found As these figures show, acute bacterial endocarditis occurs more frequently on previously normal valves than does subacute endocarditis

Analyzing our results, it has been shown that in 406 consecutive autopsies in patients over fifty years of age, heart disease was present in 342 and valvular damage in 234 Thus, in more than half the patients valvular disease was found, a possible nidus for subacute bacterial endocarditis This leads us to an investigation of the operative procedures which may predispose to infection of the valves.

In investigating the procedures that may produce transient bacteremia and thus may precipitate endocarditis, foci of infection in the upper respiratory tract and mouth were found to be the most common portal of entry The transient bacteremia accompanying surgical procedures in this area is not always adequately handled by the body's defense mechanisms There are numerous reports of subacute bacterial endocarditis

following tonsillectomy, infection of the nasal sinuses, otitic infections, general colds," extraction of teeth, and even chewing [2-7]

A number of other conditions have been reported as providing a portal of entry for the development of subacute bacterial endocarditis. Among these are wound and skin infections such as phlegmons and carbuncles, incised furuncles, glandular inflammations, toe infections, bone trauma and osteomyelitis, thrombophlebitis, and Raynaud's disease [2 3 5] Kidney infections and prostatic massage have been mentioned as predisposing factors [2 6] In fact, as recently reported by Baehr and Gerber, surgical and diagnostic procedures of the genitourinary tract are rather frequent precursors of infectious endocarditis [3] There has been mention of pelvic inflammatory disease and postpartum infection [22 9 9] Cancer of the lung and bronchial infection have been noted as significantly preceding the development of subacute bacterial endocarditis [23 25] The gastrointestinal tract as a portal of entry has been discussed by Horder [21] Transient bacteremia has been noted in animals after a high fat meal, and as reported by Crohn and Schwartzman, bacteria of many sorts may pass through the intestinal mucosa during digestion of fatty substances and are present in the chyle and in the blood for a few hours [22] Cancer of the stomach, infection of the gallbladder, acute gastroenteritis and surgical procedures of the gastrointestinal tract contribute to the development of subacute bacterial endocarditis [2 4 9 22 23]

To study the factors predisposing to the development of infectious endocarditis, 321 clinical records of patients with this disease were reviewed. Instances beginning with fever, malaise, fatigue, nasopharyngitis, chills and other nonspecific manifestations or those whose primary manifestations were embolic were not included. Seventy-seven cases were of special interest in that the onset of the disease could reasonably be related to a known factor. Of these 77 cases which were thus selected, 57 had subacute bacterial endocarditis and 20 the acute variety. In the 57 patients with subacute bacterial endocarditis, 30 operative and 27 diagnostic instrumental or manipulative procedures were related to the onset of the disease (Tables 3, 4, 5)

Table 3 presents the operative procedures which predisposed to the development of subacute bacterial endocarditis in 30 cases. Preexisting heart disease and organisms cultured in each case are also indicated thereon. Dental extractions preceded 12 cases. Genitourinary operative procedures were responsible for six cases. Nose and throat operations other than tonsillectomy preceded four cases. There was one case of operation for perineal ulcer and one cholecystectomy. Eight of the cases listed above were intra-abdominal operative procedures.

Of the remaining 27 cases of subacute bacterial endocarditis in which the disease could be related to an ascertainable factor, there were eight that followed an instrumental diagnostic procedure (Table 4). Bronchoscopic examination was apparently responsible for one of these cases, colonic irrigation and barium enema in a case of diverticulitis preceded another, and sigmoidoscopy was followed by development of subacute bacterial endocarditis in a third. There were five cases following cystoscopy, a fact previously stressed by Baehr and Gerber [3] The important

TABLE 3.—THIRTY CASES OF SUBACUTE BACTERIAL ENDOCARDITIS WITH OPERATIVE PROCEDURES AS PREDISPOSING FACTORS

Age	Operation	Heart Disease	Organism
22	Tooth extraction	Rheumatic	Streptococcus viridans
67	Tooth extraction	Rheumatic	S. viridans
28	Tooth extraction	Luetic and rheumatic	S. viridans
29	Tooth extraction	Rheumatic	S. viridans
42	Tooth extraction	Rheumatic	S. viridans
34	Tooth extraction	Rheumatic	S. viridans
20	Tooth extraction	Rheumatic	S. viridans
58	Tooth extraction	Rheumatic	Diphtheroids
29	Tooth extraction	Congenital	S. viridans
	Tooth extraction	Type undetermined	S. viridans
35	Tooth extraction	Rheumatic	S. viridans
63	Tooth extraction	Rheumatic	Parainfluenza group
53	Suprapubic cystotomy	Arteriosclerotic	Enterococcus
56	Fulgurating urethral papilloma	Type undetermined	Staphylococcus aureus
70	Transurethral prostatectomy	Rheumatic	Enterococcus
70	Suprapubic prostatectomy	Arteriosclerotic	Bacillus proteus
30	Renal lithotomy	Rheumatic	S. viridans
60	Prostatectomy	Arteriosclerotic	S. hemolyticus
28	Incision and drainage abscess rectovaginal septum	Rheumatic	Parainfluenza group
33	Salpingo-oöphorectomy	Rheumatic	
33	Dilatation and curettage (tubo-ovarian abscess)	Rheumatic	Bacteria free
32	Septic (instrumental) abortion	Rheumatic	S. viridans, Enterococcus
43	Incision and drainage pelvic abscess	Rheumatic	Cultures negative
45	Plastic repair (gynecologic)	Type undetermined	Enterococcus
67	Discharging ear mastoidectomy	Rheumatic	Pneumococcus XXV
49	Incision and drainage abscess ear canal	Rheumatic	Pneumococcus VIII
3	Sinus operation	Rheumatic	
60	Incision and drainage ear abscess	Rheumatic	
61	Perianal ulcer	Type undetermined	Enterococcus
35	Cholecystectomy	Rheumatic	Parainfluenza S. viridans

TABLE 4.—Eight Cases of Subacute Bacterial Endocarditis with Diagnostic Procedures as Predisposing Factor

Age	Diagnostic Procedure	Heart Disease	Organism
56	Bronchoscopy	Syphilitic	S. viridans
71	Colonic irrigation and barium enema	Rheumatic	S. viridans
23	Sigmoidoscopy	Rheumatic	S. viridans
28	Cystoscopy	Rheumatic	S. viridans
52	Cystoscopy	Coronary artery	S. viridans
35	Cystoscopy	Rheumatic	S. viridans
70	Cystoscopy and prostatectomy	Coronary artery	Bacillus proteus
52	Cystoscopy	Type undetermined	Enterococcus

factor to be noted, however, is that any diagnostic instrumental procedure that may traumatize a mucosal surface exposed to bacteria may facilitate the entrance of an organism to the blood stream with the possibility of development of infectious endocarditis. There were 19 cases in which the subacute bacterial endocarditis developed in conditions other than operations or instrumental diagnostic procedures (Table 5). There were six cases following manipulation such as "cleaning the teeth." There were four cases in the obstetric and gynecologic classification, two occurring during pregnancy and two others with pelvic infections. There were three cases with a history of gastrointestinal complaints of two to five years duration, one case of acute enteritis after overindulgence of food, and one case of acute enteritis with mushroom poisoning and apparently no other predisposing factor. In the remaining four cases in this group of 19, the subacute bacterial endocarditis followed a generalized nonpruritic papular eruption caused by neoarsphenamine, a severe, generalized attack of urticaria, traumatic bone injury, and German measles.

The 20 cases of acute bacterial endocarditis were similarly classified as to portal of entry of the precipitating organism. There were nine surgical procedures (three of which were intra-abdominal), two instrumental diagnostic manipulations, one case following the passage of a urethral sound, four cases of acute enteritis, one case with infection of the leg (thrombophlebitis?), two cases of acute sinusitis, and one case of cancer of the liver.

It is thus apparent, both from the literature and the cases we have presented, that all types of operations and diagnostic procedures may facilitate the passage of micro-organisms into the blood stream with development of infectious endocarditis.

Since we have indicated that valvular damage is so common in people over fifty and since operative and diagnostic procedures produce a bacteremia which may invade a damaged valve and result in infectious endocarditis, it is natural to inquire which prophylactic measures are indicated in order to prevent subacute and acute bacterial endocarditis in people over fifty.

The prophylaxis of subacute bacterial endocarditis has been greatly enhanced by the availability of penicillin because of its bacteriostatic and bactericidal power against the organisms usually responsible for this disease. Prior to the introduction of penicillin the use of sufonamides was advocated in patients with rheumatic heart disease before tooth extraction and tonsillectomy because of the transient bacteremia frequently encountered in such procedures. More recently, the prophylactic use of penicillin alone or in conjunction with the sulfonamides in such procedures in rheumatics has been advocated by Flippen and Van der Veer.[21,34] Recognition of the possibility of reinfection in healed cases of subacute bacterial endocarditis has prompted removal of foci of infection in such cases before

TABLE 5.—Nineteen Cases of Subacute Bacterial Endocarditis Following Conditions Other Than Operations or Diagnostic Procedures

Age	Predisposing Condition	Heart Disease	Organism
30	Dental manipulation (no extraction)	Rheumatic	S. viridans
46	Dental manipulation (no extraction)	None (?)	S. viridans
37	Dental prophylaxis (gingivitis)	Rheumatic	Negative culture (autopsy)
23	Dental prophylaxis (gingivitis)	None (?)	Pleuropneumonia like
38	Dental prophylaxis (gingivitis)	Type undetermined	S. viridans
49	Malocclusion of teeth and trauma	None	Gram positive cocci pneumococcus
33	Pregnancy	Rheumatic	S. viridans
29	Pregnancy	Congenital	No culture
21	Infection of vulva	Rheumatic	S. hemolyticus
14	Infection of vulva	Congenital	S. viridans
52	Gastrointestinal complaints 5 years	Congenital	No culture (autopsy)
36	Gastrointestinal complaints 2 years	Rheumatic	Bacteria free
50	Gastrointestinal complaints, 4 years	Rheumatic	Bacteria free
55	Acute enteritis	Type undetermined	S. viridans
71	Acute enteritis mushroom poisoning	Coronary artery	S. viridans
26	Generalized urticaria	Rheumatic	Gram positive cocci
26	Following german measles	Rheumatic	S. viridans
19	Bone bruise	Rheumatic	S. viridans
21	Nonpruritic papular eruption	Rheumatic	S. viridans

they are permitted to leave the hospital. Loewe has advocated the removal of infective foci in the upper respiratory tract and of diseased teeth in healed cases of subacute bacterial endocarditis, with administration of penicillin before and after such procedures.[25] Davis has called attention to the fact that the eradication of foci of infection in the pharynx is not accomplished merely by removal of the tonsils.[26] Adenoids, lymphoid tissue on the posterior pharyngeal wall, and particularly the lingual tonsils are frequent undetected foci of infection. Baehr and Gerber have proposed the administration of penicillin immediately prior to procedures such as cystoscopy and removal of teeth in patients with rheumatic heart disease and in arrested cases of bacterial endocarditis.[3] They further suggested that penicillin should be continued for twelve to forty-eight hours following such procedures.

In our series of 57 cases of subacute bacterial endocarditis in patients over fifty years old in which an operative, diagnostic, or other procedure was discernible, the blood culture was positive in 50 cases (Tables 3, 4, 5). An organism considered usually susceptible to penicillin was found in 42 cases, in six of the remaining eight, enterococci were found. Since the bacterial invader in most cases of subacute bacterial endocarditis is usually susceptible to penicillin, this agent should obviate the development of the disease in some cases. We believe that a patient with a history of rheumatic fever, a loud systolic murmur, or other signs or symptoms of heart disease should receive penicillin before and after operations or in instrumental diagnostic procedures. Such prophylaxis may also prevent acute bacterial endocarditis. In the 20 cases of acute bacterial endocarditis there were five with organisms considered usually not susceptible to penicillin. A negative culture was obtained in three cases. In 11 cases, however, the bacterial invader was susceptible to penicillin. Altogether, then, in the 77 cases of subacute and acute bacterial endocarditis following operations, diagnostic procedures, and other conditions mentioned, organisms susceptible to penicillin were cultured in 53 cases.

At present, one can only speculate as to how many cases of infectious endocarditis may be avoided with the prophylactic administration of penicillin. Recent articles by Baehr and Gerber and Finland discuss penicillin dosage in excellent detail.[3,33] Brief mention of prophylactic dosage as suggested by Schwartzman will be made here.[27] In the absence of a known infected focus in minor operations and in dental extractions, the recommendation of the committee on chemotherapy of Mount Sinai Hospital may be followed:

> Patients who have had rheumatic fever, with or without evidence of cardiac disease, should receive 200,000 units (children should be given 100,000 units) intramuscularly, twenty minutes before a dental operation. One dose of 100,000 units should be given within thirty minutes following dental operation, three additional intramuscular injections of 100,000 units should be given at eight-hour intervals thereafter.

While this rule was devised especially for persons with probable rheumatic valvular disease who were to undergo dental operations, the same system of dosage is applicable to any person having a systolic murmur or evidence of heart disease who is to undergo a surgical or instrumental diagnostic procedure. The senior author (A. M. M.) has followed this rule for a number of years. Prior to a major operation infected tissues should first be treated with penicillin. In major operations not complicated by an infected focus a prophylactic injection of 300,000 units should be administered on the operating table immediately prior to operation. The postoperative schedule previously mentioned should be adhered to in the absence of evidence of infection following operation. However, manifestations of postoperative infection indicate an immediate increase in dosage of penicillin, depending on the susceptibility of the organism to penicillin and the severity of the infection.

Because of the occasional occurrence of moderately prolonged bacteremia following cystoscopy, penicillin should be continued for two to four days and for a longer period should there be evidence of infection.

Although nasopharyngitis, tonsillitis, bronchitis, and "colds" are among the commonest conditions preceding subacute bacterial endocarditis, they have not been included in this study. We believe, however, that a patient with symptoms or signs of heart disease should receive penicillin prophylaxis in the course of a severe upper respiratory infection.

In view of the high incidence of some degree of valvular disease found postmortem in older age groups and the frequent absence of clinical evidence of such involvement, the advisability of routine administration of penicillin prior to operation and diagnostic procedures in all persons over the age of fifty must be seriously considered.[10] In our series of 406 patients, 234 showed a valvular lesion at autopsy while cardiac examination during life was negative in 69. Although a diagnosis of heart disease could not be made during life in these latter cases, they were actually susceptible to bacterial endocarditis. The objections to the routine use of penicillin are the small percentage of cases of subacute and acute bacterial endocarditis which occur, the occasional appearance of severe sensitivity reactions to the

drug, and the fact that some organisms causing endocarditis are not susceptible to it This problem requires further consideration

Summary

In 406 consecutive autopsies in patients fifty years old or more, 342 (84 2 per cent) disclosed evidence of heart disease Rheumatic lesions were present in 176 (51 4 per cent), arteriosclerotic in 133 (39 0 per cent), and a miscellaneous group in 33 (9 6 per cent)

There was evidence of gross valvular damage in 234 hearts, that is, in more than half the cases The valvular lesions were rheumatic in 176 instances (75 per cent) and arteriosclerotic in 47 (20 per cent)

The mitral valve was involved 196 times (48 per cent of the total autopsies) This adds significance to the not infrequent finding of a blowing, apical systolic murmur in people over fifty Heart disease is very common in such persons although it may not be obvious clinically

Twenty cases of subacute and 11 cases of acute bacterial endocarditis are described in patients fifty years old or more Rheumatic, arteriosclerotic, syphilitic, and congenital heart disease were present in that order of frequency

It has been indicated that any type of heart disease, particularly valvular, which produces damage of endocardial tissues may predispose to subacute or acute bacterial endocarditis during postoperative bacteremia

Fifty-seven cases of subacute and 20 cases of acute bacterial endocarditis following operative, diagnostic instrumental, and manipulative procedures are described

A vast variety of manipulations and diseases which injure mucous membrane and facilitate the entrance of bacteria into the blood stream may lead to bacterial endocarditis in the presence of valvular disease These include infections and operations in the ear, nose, and throat, tooth extraction, bronchoscopy, genitourinary infections, operations, and procedures, infections of the pelvis, skin, gastrointestinal tract, and bone, thrombophlebitis, pneumonia, and the exanthemata Such minor conditions as a cold, prostatic massage, enteritis, and toe infection have preceded bacterial endocarditis

In 17 per cent of the patients past the age of fifty, examination of the heart was negative clinically although valvular involvement was found postmortem

Since valvular lesions are very common in persons over fifty, although often not obvious clinically, penicillin prophylaxis prior to operation and diagnostic or manipulative procedures may be instituted to obviate the development of bacterial endocarditis The dosage and method are described

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ERYTHROBLASTOSIS FETALIS DUE TO BLOOD GROUP A-B-O INCOMPATIBILITY

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AS DISCUSSED in a previous paper, erythroblastosis fetalis may be caused by incompatibilities existing between mother and infant not only of the Rh factor, subgroups of the Rh factor, and the Hr factor, but also of the A-B-O blood group [1] Polayes was among the first to show the relationship of erythroblastosis with A-B-O incompatibility between mother and fetus [2]

Thus a group A baby, born of a mother of blood group O whose serum contains a high titer of anti-A isoagglutinins, may have erythroblastosis due to the action of the maternal anti-A agglutinins on the fetal group A red cells Similarly, a group B baby may develop erythroblastosis due to a high titer of maternal anti-B isoagglutinins

Since erythroblastosis due to this type of blood incompatibility is caused by a high titer of maternal anti-A or anti-B isoagglutinins, this syndrome cannot occur in an infant born of a group AB mother or in an infant of blood group O There are no anti-A or anti-B isoagglutinins in group AB serum, and because group O red cells do not possess the agglutinogens A or B, anti-A or anti-B agglutinins cannot attack the group O red cell

Before a diagnosis of erythroblastosis due to A-B-O incompatibility can be made properly, certain requisites must be fulfilled (1) The mother must be of blood group A, B or O (2) The infant must be of blood group A, B, or AB (3) There can be no incompatibility of the Rh factor, subgroups of the Rh factor, or the Hr factor between mother and infant, or if such incompatibility does exist, no antibodies to these factors can be present (4) There must be a titer of maternal anti-A or anti-B isoagglutinins of at least 1 500, since it is known that isoagglutinin titers of 1 500 or over can cause clinical evidence of agglutination and hemolysis in vivo [3]

In the course of our studies of the etiology of erythroblastosis, all newborn babies exhibiting jaundice are completely studied for evidence of blood incompatibility As a result of this, several cases of erythroblastosis were observed in which the requisites for A-B-O incompatibility were present Two of these are presented in detail

Case Reports

Case 1 —J K , a white, twenty-three-year-old primigravida, was delivered at term by low forceps of a 7 pound 7 ounce female infant after a twelve-hour labor The infant was apparently normal at birth, but twelve hours later jaundice was noted, accompanied by listlessness and lethargy The hemoglobin was 20 7 Gm and there were 1 per cent normoblasts present Icterus index was 71 During the next twenty-four hours the jaundice deepened, and the liver and spleen were palpably enlarged A diagnosis of erythroblastosis fetalis was made by Dr Philip Lombard, the pediatric consultant The blood groupings of mother and infant were as follows

Mother	Group O	Rh_1 Rh_2	Hr' positive
Infant	Group A	Rh_1 Rh_2	Hr' positive

The anti-A isoagglutinin titer of the mother's serum was 1 16 384

The anti-B isoagglutinin titer of the mother's serum was 1 8

A transfusion was given of 75 cc of Rh negative, Group O blood with an anti-A agglutinin titer of 1 25 and an anti-B titer of 1 4 (Rh negative blood was used because the blood workup was not complete at the time.) Immediately after the transfusion the jaundice increased, and the temperature rose to 101 F The next day there was marked improvement, the baby was more active, and the jaundice less pronounced Hemoglobin was 21 2 Gm Thereafter the infant continued to improve, the jaundice cleared, and the liver and spleen were not palpable The infant was discharged on the tenth day in good condition Hemoglobin was 20 0 Gm and the weight 7 pounds 4 ounces The subsequent course has been uneventful

Comment —This case meets the criteria for the diagnosis of erythroblastosis due to A-B-O incompatibility Since both mother and infant were of the same Rh phenotype, no Rh incompatibility could be present Furthermore, testing of both the mother's and infant's serums for Rh antibodies using O, Rh_1, and Rh_2 cells by both the agglutination and conglutination technics was negative The presence of other atypical antibodies was ruled out by testing both mother's and infant's serums against O, Rh positive and O, Rh negative cells with negative results No anti-A agglutinins could be demonstrated in the infant's serum This can be explained by assuming that these agglutinins were already bound up by the infant's A cells

Case 2 —T D , a white twenty-six-year-old gravida II, Para 1, was delivered at term by low forceps of an 8 pound 2 ounce male infant after a twenty-six hour labor The infant was apparently normal at birth and remained so until the second day when jaundice was noticed Examination disclosed the baby to be somewhat listless. The liver and spleen were both palpably enlarged Hemoglobin

was 21 2 Gm , and 1 per cent normoblasts were present A diagnosis of erythroblastosis fetalis was made by Dr Lombard A transfusion of 75 cc of group A, Rh negative blood was given (Rh negative blood was used because it was at first thought that this case was due to an intragroup Rh incompatibility) The infant responded well to the transfusion The icterus gradually faded, and the liver and spleen became normal in size The child was discharged on the twelfth day in good condition Hemoglobin was 23 9 Gm., and the weight was 7 pounds 14 ounces The baby has continued to thrive normally since The blood groupings of the mother and infant were as follows

Mother	O	MN	Rh_1	Hr′ positive
Infant	A_2	MN	Rh negative	Hr′ positive

The anti-A isoagglutinin titer of the maternal serum was 1 8,192

The anti-B isoagglutinin titer of the maternal serum was 1 8

Comment.—Case 2 also has the requisites for A-B-O incompatibility as the causative factor for erythroblastosis Since the baby was Rh negative, Rh antibodies could not have produced the erythroblastosis The presence of other atypical antibodies was again ruled out by testing both the mother's and infant's serums against O, Rh positive and O, Rh negative cells with negative results As in Case 1 no anti-A agglutinins could be demonstrated in the infant's serum.

Discussion

Although there have been several reports of erythroblastosis caused by A-B-O incompatibility between mother and infant, some investigators are somewhat loath to admit the existence of this syndrome [4] However, in the two cases reported, the diagnosis of erythroblastosis was established only after careful pediatric consultation and after every effort had been made to prove the absence of antibodies other than anti-A agglutinins

It is accepted that this disease is caused by the action of antibodies formed in the maternal blood which pass through the placental barrier into the fetal circulation and are incompatible with the fetal red cells It seems plausible to assert that there may be varying gradations of hemolysis and agglutination which can produce clinical symptoms of greater or lesser severity In our study of jaundice in the newborn, it is becoming more and more evident that so-called "physiologic icterus" is rarer than is supposed usually This may explain why the cases of erythroblastosis reportedly due to A-B-O incompatibility have been mild In addition, there is a natural immunity to anti-A and anti-B isoagglutinins, whereas there is no known immunity to Rh antibodies since they are not found naturally in human serum

It has been shown conclusively that a titer of anti-A or anti-B isoagglutinin of 1 500 or over can cause hemolysis if administered to an incompatible recipient [3] Hence, it appears logical that a higher titer of anti-A or anti-B maternal agglutinins can cause hemolysis of fetal red cells

The question of just what type of blood is to be transfused in the treatment of this syndrome is open to debate Apparently, blood compatible with the infant's blood group is effective, similarly group O blood with a low isoagglutinin titer appears to be safe and beneficial, as does group O blood modified with Witebsky's solution However, there are at least theoretic objections to the use of these bloods Since the isoagglutinin responsible for the erythroblastosis is incompatible with the infant's blood group, it can be argued that the addition of further blood of a similar group might be subject to the adverse action of the isoagglutinins Also, the addition of more isoagglutinins, even though of a very low titer, resulting from the use of group O blood might cause further hemolysis of the infant's blood The objection to the use of group O blood modified with Witebsky's solution is based on the fact that the added A and B substances are agglutinogenic in nature, are capable of antibody stimulation, and may conceivably result in subsequent difficulties Blood that contains neither agglutinogens nor isoagglutinins is ideal From these considerations it would seem that transfusion of washed group O, Rh compatible cells resuspended in normal saline is the most logical and safest means of therapy

While this syndrome is relatively uncommon, complete blood studies of jaundiced newborn babies would probably reveal many more cases Obstetricians should, therefore, be aware of the fact that erythroblastosis can occur in infants born of Rh positive mothers and hence should investigate all cases of jaundice occurring in the newborn Furthermore, the matter of A-B-O blood group incompatibility between mother and fetus should not be dismissed too lightly, as a recent statistical study gives rise to the provisional estimate that A-B-O isoimmunization is responsible for the loss of 3 per cent of all conceptions [5] This study also concludes that A-B-O isoimmunization acts early in fetal life to produce abortion, resulting in few cases of erythroblastosis fetalis

There has been a growing tendency against the use of pooled plasma This is principally because of the dangers of subsequent hepatitis Pooled plasma has been used in the past in order to reduce the isoagglutinin titer and so avoid hemolytic reactions The use of unpooled compatible plasma is certainly safe as it diminishes the risk of subsequent hepatitis, since in unpooled plasma only one donor is used (the new technic of

objecting pooled plasma to the action of the ultraviolet ray apparently destroys the virus responsible for hepatitis) and because the compatible plasma avoids all possibility of a hemolytic reaction. The syndrome of A-B-O incompatibility causing erythroblastosis is another argument against the use of pooled plasma, at least in females of the childbearing age. Such plasma, because it is made from various blood groups, contains both A and B substances which are antigenic and can cause an increase in the isoagglutinin titer. It has been shown that a high isoagglutinin titer is a requisite for erythroblastosis due to A-B-O incompatibility. Hence, the use of any substance likely to cause a rise in the isoagglutinin titer, such as pooled plasma or Witebsky's solution, should be avoided in females of the childbearing age.

Summary

The requisites for the diagnosis of erythroblastosis due to A-B-O incompatibility have been discussed. Two cases have been presented. The use of group O cells suspended in normal saline is advised in the treatment of this condition. A reference has been made to a statistical study which theorizes that A-B-O incompatibility plays a role in the etiology of abortion. Arguments for the use of compatible plasma in females of the childbearing age have been advanced.

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LICENSURE OF FOREIGN MEDICAL GRADUATES

The statement issued by the Committee on Foreign Medical Credentials of the American Medical Association offers a statesman-like approach to the problems involved in the licensing of foreign-trained physicians.

The quality of education a physician receives during his medical school years is as important in determining his fitness to practice medicine as is his performance on licensure examinations. These, of necessity, are limited in the extent to which they can test his knowledge and skill. In licensing graduates of American and Canadian medical schools, the state licensing boards for many years have had the benefit of the findings of thorough periodic surveys of these schools carried out by the Council and the Association of American Medical Colleges. It has been beyond the resources of these bodies to make similar studies of the medical schools in other parts of the world. Other agencies have not been discovered which can furnish adequate information. Many state boards, therefore, have been reluctant to admit foreign-trained physicians to examinations. This reluctance has been justified, because medical education in many foreign countries has been inferior to medical education in this country. In many of the countries that previously maintained high standards, medical education has deteriorated during the past fifteen to twenty years as the result of political upheavals, the crushing impact of the war, and the unsettled economic and political conditions that have prevailed since the close of the war.

The Committee has drawn attention to these problems but has also recognized that in some foreign countries high standards of medical education comparable to those in the United States have been maintained. The Committee therefore has stated that the various agencies concerned with the problem should unite their resources and devise a satisfactory method for securing reliable information concerning foreign medical schools at the earliest possible date. When such information is obtained, it should be possible for the accrediting agencies to prepare a list of foreign medical schools whose graduates may be considered to have received training comparable to that offered by medical schools in this country. It would then seem reasonable that the state boards and the National Board of Medical Examiners admit graduates of these schools to examinations, provided they can demonstrate sufficient familiarity with recent scientific advances, with the practices and custom of American medicine, and with the English language. The Council on Medical Education and Hospitals will probably give major consideration to this suggestion at its next meeting.—*J. A. M. A., April 16, 1949.*

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SEGMENTAL COLITIS ASSOCIATED WITH RHEUMATIC FEVER

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(From the Departments of Medicine and Surgery, Jewish Memorial Hospital)

THE purpose of this paper is to call attention to the coexistence of a regional inflammatory lesion of the large bowel with active rheumatic infection This phenomenon was observed in two cases in which the picture of a surgical abdomen was simulated and explorations were performed Except for the anatomic location of the lesion in the colon, the findings were identical

There are numerous reports of abdominal complaints associated with latent rheumatic fever in which surgical syndromes are mimicked The findings of those who have examined some of these cases at laparotomy revealed only peritoneal fluid ranging from a clear or straw-colored transudate to an exudate that may be fibrinous, hemorrhagic, or purulent [1] No other gross pathology was visualized, and there was no suggestion of rheumatic inflammation in any of the vermiform appendices which were removed [2]

There is no satisfactory explanation of the mechanism of the abdominal symptoms in rheumatic fever The attack with abdominal signs and symptoms usually appears when the patient is enjoying a quiescent phase After the subsidence of the abdominal symptoms with or without surgery, the more typical manifestations of arthritis and carditis may appear to suggest the nature of the recent abdominal picture In a few of the reported cases, a waning acute attack can be complicated by the onset of abdominal pain, nausea, and vomiting

Actual pathologic studies of this condition are rare Rhea, in a large number of postmortem examinations of cases of rheumatic fever at the Montreal General Hospital, found only one case with rheumatic lesions of the peritoneum [3] In this case, the peritoneal cavity contained approximately 500 cc of clear, straw-colored fluid Plaquelike areas were palpable in the subperitoneal tissues laterally and posteriorly The peritoneum in these areas showed the general features of inflammation, it was dull, hyperemic, and granules of fibrin were adherent The walls of the mesentery and the intestines were edematous and congested Microscopically, the peritoneal lesions were similar to those in the heart, i e, "congestion of the blood vessels and irregularly distributed monocytes"

Pappenheimer and Von Glahn, in studying cases of rheumatic fever, found that the rheumatic lesions in many tissues were vascular and consisted of phlebitis and periarteriolitis [4] The vascular changes were found in the following sites lung, aortic valve, kidney, perirenal and periadrenal adipose tissue, appendices epiplocae of the sigmoid colon, ovary, testes, pancreas, and in a small polyp of the cecum Felsen described a case with intrinsic pathology in the bowel wall in a woman who died with accompanying rheumatic and arthritic lesions The terminal ileum and ascending colon of this patient contained focal ulcerative and necrotic lesions "The histologic study of these lesions demonstrated a resemblance to the specific rheumatic lesions about the peripheral blood vessels in many organs described by Von Glahn and Pappenheimer"[5]

In the two cases which are the subject of this report, discrete segments of the colon were found to be markedly injected, thickened, and brawny, while the remainder of the gastrointestinal tract was normal in appearance In one case, the lesion involved the cecum and first portion of the ascending colon, while in the second the terminal portion of the sigmoid and the rectosigmoid were affected

Case Reports

Case 1—J H , a married Chinese woman, aged twenty-four years, was admitted to the Jewish Memorial Hospital on January 1, 1942, with a history of acute follicular tonsillitis three weeks prior to admission This condition subsided within a few days Ten days before admission, the patient had an onset of low-grade temperature accompanied by a short, hacking cough and aching pains in the lumbar region For the two days prior to admission, there was constant nausea and postprandial vomiting In the past history, the only pertinent fact was an attack of acute rheumatic fever one year previously

The admission temperature was 103 F , pulse 128 and respiration 22 The positive findings on examination were a mild inflammation of the pharynx and a short systolic murmur, best heard just to the left of the sternum. There was no tenderness or spasm of the abdomen or flanks The laboratory data showed the urine to contain a slight trace of albumin and a 4 plus acetone The red blood cells were 3,790,000, hemoglobin 10 Gm., white blood cells 31,850 with a differential of polymorphonuclears 65 per cent, stabs 23 per cent, lymphocytes 6 per cent, and monocytes 5 per cent A markedly elevated sedimentation rate of 102 mm per hour (Westergren) was recorded Admission blood culture and agglutination tests, i e typhoid O and H, paratyphoid A and B, melitensis, and Felix Weil, all proved negative Roentgen study of the chest revealed no pulmonary pathology On the basis of

these findings, the diagnoses made in order of preference were (1) acute rheumatic fever (2) possible subacute bacterial endocarditis, and (3) enteric fever to be ruled out

The patient was observed closely during the following five days for a specific focus to explain a continued high temperature elevated sedimentation rate, and leukocytosis The frequent vomiting which had caused an acidosis was not evident in the hospital. There were no subjective complaints during this period, but on January 23 the presence of tenderness in the right flank was detected Within twenty-four hours this area became excruciatingly tender and the musculature spastic, yet the patient did not complain of pain in this region Repeated blood studies revealed a decrease in leukocytosis to 23,700 but with a marked shift to the left with 34 per cent stabs and 41 per cent segmented polymorphonuclear cells With this changing picture, the attending physician made the provisional diagnosis of pernephritic abscess. Dr Edward Blair, in consultation, felt that an exploration was justified

The abdomen was opened under general anesthesia on the fifth day of the patient's hospital admission The cecum and lower portion of the ascending colon were found markedly thickened and red with considerable edema of the serosa The appendix was found curled up under the cecum in similar condition but was apparently not the primary cause The ileum was normal No clinical diagnosis could be made as to the nature of the condition The appendix was removed and the wound closed after 5 Gm. of sulfathiazole powder were placed in the peritoneal cavity

The patient's postoperative course was complicated on the fourth day by the onset of pain in the right knee and shoulder and, associated with this was the swelling of the right knee and a secondary rise in temperature The arthritic symptoms subsided in a few days Further evidence of rheumatic activity during the postoperative period was a markedly elevated sedimentation rate of 114 mm in one hour, an electrocardiogram which showed a first stage heart block with a P-R interval of 0 22 second, and the clinical observation of a systolic murmur to the left of the sternum in the second intercostal space Otherwise the postoperative period was characterized by a gradual lysis of fever which had varied between 101 and 104 F during the first week to normal during the second week. The patient was discharged to return home by ambulance for further convalescence on the fourteenth postoperative day

Case 2 —A. S , a young white man, aged seventeen years, was admitted to the Jewish Memorial Hospital on June 2, 1947 A history was obtained of typical recurrent attacks of rheumatic fever over a ten-year period His present illness began five weeks prior to admission with a low-grade fever and signs of a mild upper respiratory infection. The patient was confined to bed in his home and during the following weeks he continued to run an intermittent temperature and had migratory joint pains Two days prior to admission, there was an onset of low-grade suprapubic pain which in twenty-four hours localized to the right lower quadrant The patient's appetite was poor and there was some nausea and vomiting, bowel movements were regular The patient was then hospitalized for closer clinical observation and laboratory studies

On admission, the temperature was 104 F pulse 120 and respiration 22 Examination revealed a freely perspiring sickly adolescent male with pallid, drawn facies The tongue was furred and brown A heaving apical beat was observed below and to the left of the left nipple, and a systolic thrill was palpable in this area A systolic murmur was heard over the apex and it was transmitted toward the left axilla, no diastolic murmurs were heard Moderate tenderness was found across the suprapubic area but no rebound or muscle spasm. Rectal examination revealed slight tenderness in both lower quadrants. Extremities were negative The admission diagnoses were (1) acute rheumatic fever, (2) subacute bacterial endocarditis, and (3) abdominal adenitis with peritoneal irritation

Laboratory data on admission included a sedimentation rate of 70 mm in one hour, red blood cell count of 3,800,000, hemoglobin 12 5 Gm , white blood cells 20,000 and a differential revealing polymorphonuclears 76 per cent, nonsegmented polymorphonuclears 9 per cent, lymphocytes 14 per cent, and monocytes 1 per cent The urine was negative except for many white blood cells without clumping In numerous re-examinations of urine specimens this finding recurred but once, and its significance was never appraised X-ray of the chest was negative for pulmonary pathology

During the first thirty-six hours in the hospital, the mild suprapubic symptoms and signs shifted and localized to the right lower quadrant The patient complained of persistent pain in that area, but there was no nausea or vomiting At this stage, the patient was seen in consultation by the authors, and examination disclosed exquisite tenderness over an entire area that was within a radius of 3 inches of McBurney's point There was moderate voluntary muscle spasm and a vague sense of mass in this region, rebound tenderness was not present During this period in which there was localization of signs to McBurney's point, there was an increase in leukocytosis to 31,000 with no appreciable change in the differential white cell count

The clinical impression at this time was that the abdominal signs and symptoms could be a manifestation of rheumatic fever but that acute appendicitis with abscess formation and a walling-off process could not be ruled out It was decided to watch the patient carefully, maintaining him on a modified Ochsner regime, and to administer penicillin 100,000 units, every three hours In another twenty-four hours, the patient complained of spread of pain to the left lower quadrant Examination disclosed the same findings on the right side with extension of signs across the midline to the left lower quadrant Tenderness and voluntary muscle spasm in this new area were quite pronounced but, as on the right side there was no rebound tenderness

It was felt that in view of the signs of persistent and spreading peritoneal irritation, expectant treatment could not be pursued without great danger if

the pathology was appendiceal. Exploratory laparotomy was performed under spinal anesthesia on the third day of the patient's hospitalization. Prior to incision which was to be a McBurney, the abdomen was palpated, and instead of feeling the expected mass in the right lower quadrant, one was distinctly palpated in the left lower quadrant. The incision was changed to a paramedian and upon opening the peritoneal cavity, a small amount of clear amber fluid was found. Inspection revealed a mass in the left lower quadrant which was composed of a matting together of collapsed small bowel and a markedly edematous, injected sigmoid and rectosigmoid. The serosa of the involved colon was deeply hyperemic, and the bowel wall itself was thick and pipe-stemmed. The epiplocae in this area was spotted with many injected vessels. A few small fibrinous patches were present on an otherwise normal small intestine. The serosa of the cecum was slightly hyperemic, but that portion of the colon was essentially normal in appearance. After culturing and suctioning off the peritoneal fluid, the plastic adhesions were easily separated, the organs inspected, and then an appendectomy performed.

Postoperatively, there was gradual improvement on oral salicylate therapy and within a week a complete disappearance of the abdominal signs and symptoms. The patient continued to run a recurrent temperature for five weeks before it leveled off and stayed within normal limits. Throughout this period, a constant tachycardia around 120 was maintained, and the sedimentation rate on successive weeks was 70, 84, 85, 35, and 33 mm. per hour. The antifibrinolytic titer on June 28 was 4 plus. Electrocardiograms taken on June 16 and 27 showed a left axis deviation, upright T waves in all leads, and a slurred QRS in the third, the P-R interval was not prolonged. Cultures of blood and peritoneal exudate were negative for growth.

The patient was discharged from the hospital after forty-one days. For a short period he was well, and then there was a recrudescence of rheumatic fever in severe form characterized by pancarditis and myocardial insufficiency.

Pathology

The microscopic findings and comments by Dr. Alfred Angrist are presented in detail. They support our impression that the gastrointestinal lesions may well represent exudative rheumatic manifestations.

Case 1.—Tissue: Appendix (microscopic).—The serous coat shows an outstanding edema, so that the serosa is thrown up in folds. Some of the included lymphatics are engorged with serous lymph material and distended by same. The interstices of the stroma are filled with similarly staining edema fluid. Throughout the serous coat and oriented to the surface in some areas are seen foci of palisaded, proliferating histiocytes. These are prominent in some of the serosal folds, as noted, and an occasional focus shows minute necrosis. A fibrinous exudate forms a thin adherent membrane on the surface of the peritoneum in some areas. Some of the histiocytes can be seen invading this surface zone of exudate. The exudate about some of the venules is quite marked, with round cells present in considerable numbers and some prominent histiocytes with a parallel arrangement. Some of the histiocytes are quite large and show large nuclei and parallel orientation, but no multinucleated giant cells can be made out. One small venule shows a subendothelial proliferation of such cells, giving origin to a hillock, verrucous-like protrusion into the lumen. The remainder of this vessel shows polynuclear exudation beneath the intima and regional edema.

The remaining coats show engorgement of the vessels with some perivascular round-cell infiltration extending into the muscular coat. The mucosa and submucosa show no remarkable changes.



FIG. 1. Edema and inflammatory infiltration in serosa of appendix. Note fibrin deposit.

Case 2.—Tissue: Appendix and sigmoidal appendix epiploica (microscopic).—Section of the appendix shows considerable edema of serous coat with considerable round-cell infiltration (Figs. 1 and 2). A thin layer of fibrinoid material is found on the serous surface. Inflammatory round cells are noted about numerous vessels of the serous coat, but polynuclear elements are found attached to the endothelium and extending into the lumen and in the wall proper of some of the small venules. Some proliferating fibroblasts are seen. Large histiocytes are not prominent in this section. Some of the fibrinoid material shows beginning organization. Some of the venules show evidence of endo- and periphlebitis.

Some perivascular infiltration is noted extending into the muscle coat, with the muscle coat showing round cells about some of the smaller vessels.

The appendix epiploica shows a prominent thin surface layer of fibrinoid material with adjacent inflammatory exudation. Some of the fibrinoid material is present in globule form, most of it, however, appearing as a laminated layering. The adja-

cent tissue shows prominent exudation with some nonstaining edema fluid in the fat and again considerable perivascular round-cell infiltration Some histiocytes are present in the stroma about some of the venules and very small arterioles Fibrinoid material can be seen extending into the fat of the appendix epiploica, corresponding to the thin septal trabeculae

Comment.—Both of the above cases show an indolent inflammatory reaction in the stroma of the serous peritoneal coat with a fibrinoid surface exudation. The inflammatory reaction is of a diffuse character, although mild, and shows a distinct orientation to the vasculature, as noted Although no specific histologic manifestation of a rheumatic infection is found, the above reaction has been seen in the synovial membranes of joints of known cases of rheumatic fever

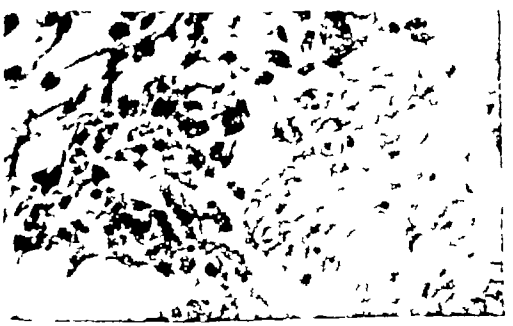


FIG 2 High power magnification of the serosa of the appendix showing perivascular inflammatory infiltration

Differential Diagnosis

The freedom from symptoms, such as diarrhea, straining, urgency, and mucoid or bloody stools, and the noteworthy lack of chronicity are important points in differentiating these cases from other intestinal syndromes, such as malignancy, specific colitis such as tuberculosis and syphilis, regional ileitis, and nonspecific colitis, which may be universal or segmental Of greatest interest in the differential diagnosis is the latter condition, also known as right-sided colitis

Crohn, Garlock, and Yarnis, in reviewing a series of 77 cases of this syndrome, mentioned that in one case acute endocarditis with a blowing systolic murmur and fever developed while the patient was under observation [6] In two cases, they found pre-existent rheumatic valvular disease which was accepted as being purely coincidental They hypothecate a specific type of chronic valvular disease of the heart arising solely as a complication of segmental colitis and not related to any previous rheumatic infection

The sequence of events and findings in our patients is different The distinguishing features in the two cases presented are as follows (1) The primary disease was acute rheumatic fever, (2) the abdominal lesions occurred during the active stage of the disease, and (3) the brief duration, a spontaneous recession, the absence of stool abnormalities, a high leukocyte count, and the absence of pronounced mesenteric lymphadenopathy were noteworthy

The two instances presented above give no evidence of avitaminosis in which condition segmental bowel changes have been described

Discussion

No pathologic studies were made of the gross lesions in the colon as biopsy was not feasible However, it is felt that in the first case the vermiform appendix, being an involved contiguous structure, probably reflected the picture in the colon In the second case, the appendix, while not grossly involved in the process, did show similar changes, suggesting the possibility of widespread involvement of the intestinal tract

The lesions of the colon observed in the foregoing cases may represent a local manifestation of the exudative phenomenon of rheumatic activity While not accepted by all authorities on rheumatic fever, it is likely that this type of reaction is allergic or anaphylactoid in character That the gastrointestinal tract may act as a shock organ was first demonstrated experimentally by Gray, Harten, and Walzer [7] They induced an allergic reaction in the passively sensitized mucous membranes of the rectum, ileum, and colon by the oral administration of a specific antigen

Rich and Gregory, while making no claim to having finally settled the question of the pathogenesis of rheumatic fever, have experimentally reproduced the disease picture as it so commonly occurs in man by hypersensitivity of the anaphylactic type [8] They also point out that most students of the pathology of rheumatic lesions are agreed that a fundamentally important manifestation of the condition is focal injury to the connective tissue characterized by edema with swelling and degeneration of collagen fibrils, as well as the frequent occurrence of inflammatory, necrotic arterial lesions (the so-called rheumatic arteritis)

The absence of Aschoff bodies in tissue specimens from our patients again emphasizes the fact that these structures are but rarely demonstrated outside of the myocardium [9] Of particular interest is Dr Angrist's comment on the similarity between the lesions in these cases and those in the synovial membrane of joints in known cases of rheumatic fever

Summary

There are presented in this article two cases of acute rheumatic fever, which, upon exploration for surgical abdominal syndromes, revealed acute segmental lesions of the colon that resolved spontaneously within a week.

In Case 1, the abdominal signs were preceded by an attack of tonsillitis and were followed within a few days by polyarthritis In Case 2, the clinical picture of active rheumatic fever preceded the onset of colonic involvement

Inasmuch as the colonic lesions do not correspond with any known pathologic condition of the large bowel, and because of the suggestive evidence presented, it is felt that they may represent an exudative colonic manifestation of rheumatic infection

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STATISTICS REFUTE EWING'S CLAIM FOR REDUCTION OF DEATHS

Refuting Federal Security Administrator Oscar Ewing's claim that 325,000 of the 1,400,000 deaths which occur annually in the United States are preventable, an editorial in the May 28 issue of the *Journal of the American Medical Association* said that no health program, system of health insurance, or amount of medical progress could make this reduction

Such a decrease would bring the annual number of deaths below the number in any year since 1900 when the population of the United States was only half what it is today Moreover, the editorial indicated, use of the annual number of deaths as a measure of health progress is fallacious

Health progress and the number of deaths each successive year are simply two different ideas, the editorial pointed out

Obviously this reduction cannot be accomplished in an increasing and aging population because the total number dying each year in any nation depends on the number of people, their ages, and the death rate per thousand at each age. Nor can the annual number of deaths be kept from actually increasing during the coming years

Twenty years ago the number of deaths was 100,000 less than last year, and life expectancy at birth was seven years less. Twenty years from now the number of deaths in our aging population may well be 1,500,000 to 1,600,000, the length of life doubtlessly will be greater, and the mortality rate for each age will be lower than now

The task of the medical profession over the years is to raise the average age at death, reduce the importance of the "younger" causes of death, and increase the importance of the "older" causes of death.

Among the many unsupported claims made by the Federal Security Administrator in his promotion of a compulsory health insurance program is the reduction of the number of accidental deaths annually from 100,000 to 60,000, or by 40 per cent

However, physicians realize that a comprehensive scheme for an extensive reorganization of the nation's medical services could not possibly eliminate 40 per cent of accident fatalities. If the accidental death reports published yearly by the Kansas State Board of Health are to be taken as representative of the country as a whole, the proposal is untenable For 1945, 1946, and 1947, a total of 4,103 fatal accidents occurred in Kansas. Of these, 1,930 deaths, or 47 per cent, occurred instantaneously and 2,468 deaths, or 60 per cent, occurred instantaneously or within one day after the fatal accident. The remaining 40 per cent died after 24 hours.

By a strange coincidence, the administrator believes that he can save 40 per cent of lives lost in all fatal accidents. According to the Kansas statistics—the best in the United States on this point—the administrator apparently proposes to guarantee survival to all who remain alive for 24 hours after an accident—or to an equivalent number The physicians would like to know how compulsory health insurance would save those lives.

Symposium

THE SURGICAL TREATMENT OF HEART DISEASE

CLINICAL ASPECTS OF CONGENITAL CARDIAC LESIONS AMENABLE TO SURGICAL THERAPY

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(From the Children's Medical Service, Bellevue Hospital and the Department of Pediatrics, New York University College of Medicine)

THE need for accurate clinical diagnosis in congenital anomalies of the heart and great vessels has been accentuated by the development of surgical procedures that now make possible the cure or alleviation of a group of these anomalies As these operative procedures are best carried out during the childhood years, the responsibility for initial recognition of those conditions which can be helped falls largely upon the pediatrician or general practitioner caring for this age group

Clinical Methods of Study

Establishment of the diagnosis is possible in the majority of cases of congenital heart disease by readily available clinical methods [1] These include close attention to details of the physical examination of the cardiovascular system, fluoroscopic and x-ray studies, and analysis of the electrocardiographic record

The presence or absence of clubbing and cyanosis are of immediate diagnostic aid Occasionally cyanosis becomes definite only after exercise Unless contraindicated by the presence of dyspnea or considerable cyanosis at rest, the heart should be examined and blood pressure taken before and immediately after exercise Palpation of the femoral arteries should be carried out routinely In analyzing congenital cardiac anomalies it is essential that palpation and auscultation be carried out over the entire precordium. Careful evaluation should be made of the exact location of thrills, abnormal accentuation or decrease in intensity of the heart sounds, and site of maximum intensity, direction of transmission, and quality of murmurs

With eyes well accommodated, a thoughtful fluoroscopic examination of the contour of the heart and great vessels in the anteroposterior and both oblique views is invaluable. The type of pulsations at various points can be observed directly It is particularly important to note increase or decrease in amplitude of pulsations of the pulmonary artery and vascular markings in the hilar areas The course of the barium-filled esophagus should be studied for abnormal displacement or compression In addition, x-rays are valuable for basic record measurement of cardiac size, and clearer visualization of the pulmonary vascular markings

Determination of circulation time from arm to lips or tongue may be helpful in certain cases Shortening of this time below the normal value for the age of the given case indicates the presence of a venous-arterial shunt Because of the sharp objective end point obtained, the use of fluorescein is preferable to decholin in younger children and infants

Evaluation of the axis deviation of the electrocardiogram gives information as to the proportionate mass of the two ventricles present in individual cases

In many cases of congenital heart disease diagnosis is possible from the synthesis of information gathered from these standard clinical methods of study However, for complete establishment of the diagnosis in certain instances, recourse may be necessary to procedures such as angiocardiography and venous catheterization of the heart [2,3] These procedures entail special equipment and a well-trained team of investigators which, of necessity, are available at present only in larger centers of investigation.

Conditions Amenable to Surgical Therapy

To date, surgical procedures are available for the following conditions patent ductus arteriosus, coarctation of the aorta, anomalies of the aortic arch causing pressure, and the tetralogy of Fallot Surgical investigations are in progress as to relief in valvular pulmonary stenosis, closure of septal defects, and measures to improve the circulation in transposition of the great

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traindicate but rather enhances the need for surgical intervention to eliminate the added strain from the shunt through the patent ductus arteriosus

When cyanosis is noted or there is considerable right axis deviation in the electrocardiogram in the presence of murmurs of a patent ductus arteriosus, careful investigation is imperative to determine the presence of an associated pulmonary stenosis prior to consideration of surgery In this circumstance the patency of the ductus arteriosus serves a physiologic compensatory function in maintaining sufficient flow of blood to the lungs Hence, elimination of this shunt under such circumstances is contraindicated

Coarctation of the Aorta—Coarctation of the aorta is a constriction of this vessel at the distal end of the arch, usually just beyond the level of the origin of the left subclavian artery This condition may be associated with severe cardiac abnormalities which are incompatible with life beyond a short span In other cases it may occur alone or associated with less significant cardiac abnormality and is compatible with life into the adult years [5]

The outstanding effects of coarctation of the aorta are increased blood pressure above the constriction with low pressure in vessels below this area and the development of collateral circulation To circumvent the narrowing in the aorta, the greater part of the blood flow to the lower portion of the body must pass through collateral arterial pathways The collateral circulation occurs from branches of the subclavian arteries (1) through branches of subscapular and intercostal arteries to the descending aorta and (2) through the internal mammary, superior and inferior epigastric arteries to the iliac arteries The development of the collateral circulation becomes more marked with growth Due to the increased flow and pressure in these arteries they become abnormally tortuous, dilated, and prominent Pulsation of these vessels may be visible under the skin of the chest and abdomen The continuous pulsations in the posterior intercostal arteries lead to erosions of the lower margins of the ribs

Symptoms are quite frequently lacking, especially in the younger group When present they include headache, dizziness, epistaxes, and complaints of weakness and coldness of the legs Physical development is usually not impaired, and there is no evidence of clubbing or cyanosis The outstanding finding is hypertension in the arms and absent or feeble pulsations of the femoral artery with low or unobtainable blood pressure in the legs Normally, systolic pressure in the lower extremities is higher than that in the arms, and the finding of reversal of this relationship is of immediate diagnostic significance The pressures, both systolic and diastolic, in the arm range from only moderately above normal values in some cases to very high readings in others

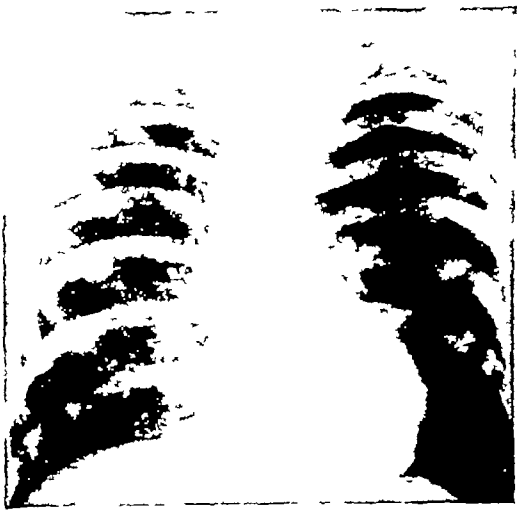


FIG 1 Coarctation of the aorta—posteroanterior view

A systolic murmur over the base of the heart may be present, but frequently the only abnormality noted on auscultation is accentuation of the second aortic sound On fluoroscopy and x-ray the heart is usually relatively normal in size or shows slight left ventricular hypertrophy, and the aortic knob may be small (Figs 1 and 2)



FIG 2 Coarctation of the aorta—left anterior oblique view

vessels These latter procedures, however, have not been sufficiently studied or enough cases operated upon to warrant their discussion in this presentation

Patent Ductus Arteriosus—The ductus arteriosus serves an essential purpose during fetal life The lungs being unexpanded, most of the blood entering the pulmonary artery is shunted directly through the ductus into the aorta With the onset of respiratory function after birth, the blood pumped from the right side of the heart is directed into the pulmonary vascular bed for oxygenation, and the ductus arteriosus is, therefore, no longer needed The lumen of this vessel gradually becomes obliterated under normal circumstances, this process usually being completed by the end of the second month

Patency of the ductus arteriosus may persist in certain individuals, due to as yet poorly understood causes In postnatal life, because the pressure in the systemic circulation is higher than that in the pulmonary circulation, the flow of blood is from the aorta into the pulmonary artery The anatomic and physiologic effect of this arteriovenous fistula may be great or slight, depending upon the size of the ductus and the amount of blood shunted Both sides of the heart are affected by this condition The pulmonary vascular flow is increased by the added volume entering from the aorta, which causes *an extra load to be driven forward by the right* ventricle The increase in volume flow returning from the lungs in turn increases the size, output, and work of the left side of the heart Due to the persistent increased blood flow through the lungs, pulmonary hypertension may occur

Clinically definite symptoms can be almost lacking where the flow through the ductus is small, but with a large flow and considerable cardiac enlargement the symptoms may be quite prominent In the latter instance, there may be history of repeated pulmonary infection Fatigability and exertional dyspnea are apt to be present The individual may present a certain degree of underdevelopment and pallor No clubbing is present In the absence of congestive failure or pulmonary disease, there is no cyanosis

On cardiac examination the classic finding is the continuous murmur in systole and diastole which is heard with maximum intensity at the second interspace to the left of the sternum and is often rather widely transmitted over the precordium[4] The murmur has a characteristic rasping or *roaring quality* and is variously described as resembling "a train in tunnel," "the continuous running of a machine," or "rolling thunder" A thrill corresponding in time and location to the murmur is frequently palpable Both murmur and thrill are frequently maximal in the recumbent position Due to the increased pressure in the pulmonary circuit, considerable accentuation of the second pulmonic sound is usually noted Where a large shunt of blood is present, the systemic blood pressure will show a wide pulse pressure *and further lowering of the* diastolic level after exercise

It should be noted that in infants and young chirlden the diastolic component of the murmur may not be audible This is explained by the relatively low systemic blood pressure in this age group, and, although some blood probably is passing through the ductus during diastole, the rapidity and volume is not sufficient to create an audible murmur

Fluoroscopic and x-ray findings vary considerably from case to case Prominence of the pulmonary conus and expansile pulsations of the pulmonary artery and hilar vessels are present in many cases but are less notable or absent in others The size of the heart ranges from nearly normal to a moderate degree of enlargement of both ventricles, usually dependent on the amount of flow through the ductus With large flow evidence of pulmonary engorgement and enlargement of the left auricle may also be found

The electrocardiogram in the majority of instances shows no axis deviation due to the fact that both ventricles share the effect of this shunt *Significant right axis deviation should promptly* raise the question of an associated pulmonary stenosis

In the presence of a classical murmur the diagnosis of a patent ductus arteriosus presents no problem The establishment of a definite diagnosis may be difficult in the early age group before the diastolic murmur is clearly heard, as previously mentioned Other conditions which can create a loud systolic murmur in the same area are pulmonary stenosis, a high interventricular defect, or an interauricular defect Occasionally, in the latter conditions associated with large blood shunts, if there is sufficient enlargement of the pulmonary artery, pulmonary regurgitation may be present, and a diastolic murmur may also be heard This diastolic murmur of regurgitation is, however, almost always softer, more blowing in quality, and is usually better heard further down the left sternal border than the rough diastolic component present with a patent ductus arteriosus

Usually a patent ductus arteriosus occurs as an isolated anomaly, but occasionally it may be associated with an interventricular septal defect, or there may be superimposed rheumatic heart disease The presence of this particular congenital anomaly or acquired mitral disease, provided the rheumatic process is inactive, does not con-

in the anterior view (Fig 3) Where a right aortic arch crosses behind the esophagus to descend on the left, there is a transverse posterior compression of the barium-filled column at the level of the third or fourth vertebra (Fig 4) The course of an anomalous subclavian artery is seen as a compression which runs obliquely across the upper part of the barium-filled esophagus.

When these anomalies cause serious symptoms, which are most prone to occur in infants, surgical intervention is indicated Release of the "ring and relief of pressure is accomplished by division of one of the vascular structures displacing the right aortic arch or the lesser of the two sides of a double aortic arch. An anomalous right subclavian artery can be ligated and divided Gross has reported good results in several cases of the above types [6]

Tetralogy of Fallot and Other Cardiac Anomalies Causing Cyanosis—There is a variety of congenital cardiac abnormalities which cause persistent cyanosis Many of these cases do not survive beyond the first weeks or months of life Of those who survive longer, it is estimated that about 75 per cent are instances of the tetralogy of Fallot The four features of this syndrome consist of pulmonary stenosis, dextraposition of the aorta which thus overrides and receives blood from both ventricles, a high interventricular septal defect, and hypertrophy of the right ventricle The stenosis is most frequently located at the infundibular area of the right ventricle The results of these malformations are a decrease in volume of blood reaching the lungs for oxygenation and an admixture of arterial and venous blood pumped into the aorta Arterial oxygen saturation is thus lowered In an attempt to compensate for this hypoxia there is development of polycythemia



Fig 5 Tetralogy of Fallot—posteroanterior view



Fig 6 Tetralogy of Fallot—left anterior oblique view

Cyanosis may not be noted during the first months of life when the ductus arteriosus frequently remains open to supplement the flow of blood to the lungs As this vessel tends to become obliterated and with progressive growth and activity of the infant, the degree of hypoxia increases, and cyanosis becomes apparent Clubbing of the fingers and toes develops gradually, depending on the degree of oxygen deficiency present in individual cases Symptoms due to hypoxia include dyspnea, often paroxysmal in type and accompanied at times with episodes of unconsciousness during which there may be twitching or frank convulsions These cases show a typical response when fatigued if erect, they will squat on their heels, the same reaction appearing in the infant who is seen to draw up his knees toward the chest and usually prefers to lie on his abdomen in this position [7]

Examination of the heart usually reveals no significant enlargement The second pulmonic sound is clear and often decreased in intensity Location and intensity of systolic murmurs are variable, being in some cases quite loud over the pulmonic area transmitting upward to the clavicle, in others best heard over the lower precordium, and in some instances, especially in infants, no definite murmur is audible There is no diastolic murmur Fluoroscopic and x-ray examination is much more helpful in establishing the diagnosis than auscultation (Figs 5 and 6) The characteristic features are a heart relatively



FIG 3 Right aortic arch Impingement on right side of barium-filled esophagus, as seen in posteroanterior view

In some cases there is prominence of the ascending aorta Notching of the inferior border of ribs is a strongly suggestive finding which, however, is only rarely clearly visualized before the age of ten to fourteen years In the left anterior oblique view the ascending aorta appears to rise unusually high toward the apex of the chest due to the increased size of the vessels arising from the arch The electrocardiogram frequently shows some left axis deviation

The differential diagnosis is rarely a problem, as cases of hypertension due to other causes will not show the difference in blood pressure between the upper and lower extremities In the presence of any degree of hypertension in the arms, palpation of femoral and dorsalis pedis arteries and checking the blood pressure in the legs must be a routine procedure

Cardiac anomalies associated with the adult type of coarctation are most frequently subaortic stenosis and occasionally a bicuspid aortic valve with or without aortic insufficiency In the presence of this first condition a loud, harsh systolic murmur is heard maximally to the right of the upper precordium transmitting into the neck Such associated anomalies do not contraindicate surgical intervention for the coarctation of the aorta

Anomalies of the Aortic Arch.—Anomalies of the aortic arch or subclavian arteries may cause pressure on the esophagus or trachea Abnormalities in the development from the primitive branchial arteries may result in a right aortic arch with descent either on the right or left side, a double aortic arch, or the right subclavian artery may take its origin from the left side of the aortic arch instead of branching from the innominate artery In certain circumstances both the trachea and esophagus are enclosed in a "vascular ring" An anomalous right subclavian artery passes posterior to and can compress the esophagus In these conditions the degree of pressure may be so slight that no symptoms develop and the anomaly is a chance finding on fluoroscopic or x-ray study or even at the autopsy table A certain number, however, may be so closely related to the esophagus or trachea as to create pressure conditions of serious import, especially in infants Symptoms noted are respiratory difficulty, stridor, and possibly cyanosis while feeding and difficulty in swallowing Repeated pulmonary infections may ensue

Clinical evaluation of these anomalies is made by study of the outline of the trachea and the barium-filled esophagus as seen in x-ray films taken in anterior and oblique or lateral views The ascending portion of a right aortic arch indents the right side of the esophagus as seen



FIG 4 Right aortic arch with descent on left Right anterior oblique view showing posterior impingement on esophagus

x-rays of the lung should be carefully studied and a search made over the lung fields for the presence of a brut Studies by angiocardiography are helpful in demonstrating and clarifying the presence of such an anomaly

Summary and Conclusions

Clinical evaluation of congenital anomalies of the heart and great vessels amenable to surgery have been presented Accurate diagnosis of these conditions is now of practical importance so that those cases where surgical therapy is available may obtain such benefits It is equally desirable that careful evaluation be made before discussion of operative therapy so that immediate false hopes may be avoided in cases not amenable to surgery at this time As further surgical procedures become available, continued refinements in clinical diagnostic methods will be necessary

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THE USE OF CARDIAC CATHETERIZATION AND ANGIOCARDIOGRAPHY IN THE DIAGNOSIS OF CONGENITAL CARDIAC LESIONS

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WITH the development of successful surgical procedures for the correction of anatomic and physiologic abnormalities in the group of congenital cardiovascular lesions, differential diagnosis has assumed increased importance The usual methods of clinical examination, when they include a complete history, physical examination, fluoroscopy, electrocardiography, pulse wave tracings, and circulation time studies, admittedly furnish enough information on which to base a reasonably accurate diagnosis in the great majority of instances The emergence of specific criteria for operative intervention has pointed up the value of more accurate diagnosis, especially in instances where clinical data, as above outlined, are equivocal

In recent years cardiac catheterization and angiocardiography have been added to the methods previously employed Cardiac catheterization, first developed as a clinical method by Cournand and associates and utilized by others, aids in establishing the diagnosis by making possible the determination of the oxygen content of the blood from the great veins, pulmonary artery, and such cardiac chambers as may be reached with the catheter tip [1-3] It likewise allows for determination of the pressure within the right heart chambers and the pulmonary artery By simultaneously determining the oxygen consumption the application of the Fick principle makes possible, if desired, calculation of the cardiac output It is also possible to differentiate in certain abnormalities between the systemic and pulmonary blood flows and to estimate the volume of shunt per unit time from the venous to arterial side or vice versa These additional data may not be necessary in the majority of cases The value of catheterization in proving in difficult cases the existence of defects by passage of the catheter tip through them is self-evident The technic of cardiac catheterization has been amply described by Cournand, Bing, Dexter, and others and need not be further elaborated here [2-4] It is our routine procedure to follow catheterization immediately with angiocardiography by injecting the contrast medium through a cannula introduced into the antecubital vein from which the catheter has just been withdrawn.

Angiocardiography consists of the visualization of the cardiac chambers, the aorta, and pulmonary artery by the rapid introduction into the antecubital vein of radio-opaque fluid, such as 70 per cent diodrast, roentgen exposures thereafter being made in rapid succession This method, introduced as a routine procedure by Robb and Steinberg, has been employed with modifications in a systematic study of congenital cardiovascular lesions by Sussman and his associates [5-7]

Angiocardiography complements cardiac catheterization It furnishes a precise record in some instances of anatomic abnormalities not

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normal in size, a raised and rounded apex, and concavity and absent pulsations instead of the normal convexity in the upper left third or pulmonary segment of the cardiac contour In the left anterior oblique view, abnormal clarity of the pulmonary window is frequently demonstrable In the right anterior oblique view convexity is noted at the level of the pulmonary segment Some variation of these findings is found in the presence of poststenotic dilatation of the pulmonary artery Although this condition may fill out the pulmonary segment to some degree and the shadow of the main branches is visible, there still will be no or only faint pulsations visible fluoroscopically in these areas Hilar vascular markings may be decreased but, in the presence of considerable compensatory bronchial circulation, may be normal in intensity Due to decreased pulmonary blood flow, the lung field, best checked in the x-ray, shows a rather striking clarity

A right aortic arch is associated with the tetralogy of Fallot in about one fifth of the cases It is important that the surgeon know prior to operation to which side the aorta arches This is demonstrated by x-ray study of the barium-filled esophagus as previously described

The electrocardiogram in practically all instances of the tetralogy of Fallot shows a marked degree of right axis deviation due to the right ventricular hypertrophy Compensatory polycythemia is the usual finding, the red blood count and hemoglobin ranging at times to extremely high levels Because of the overriding of the aorta, the arm-to-face circulation time is shorter than normal

Amelioration of the functional capacity in cases of the tetralogy of Fallot is accomplished by an operation to increase flow of blood to the lungs The procedure described by Blalock creates an anastomosis between a vessel from the aortic arch to the pulmonary artery [8] The Potts procedure creates a direct anastomosis between the aorta and the pulmonary artery [9]

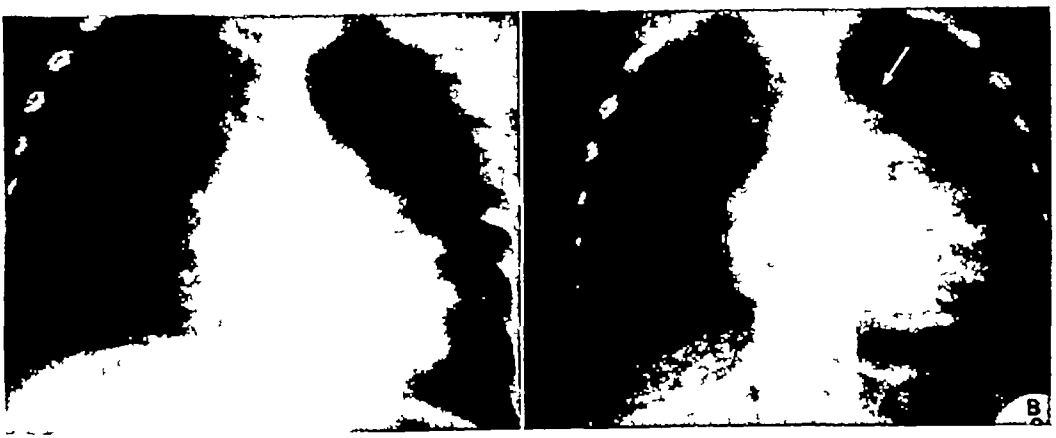
Exact diagnosis in cases of cyanosis in infancy may be relatively difficult With cyanosis from birth the presence of transposition of the great vessels or a truncus arteriosus should be considered in differential diagnosis In these conditions the heart will usually increase considerably in size over the first few weeks of life in contrast to the relatively normal size maintained in the majority of cases of tetralogy of Fallot Analysis of the shadow of the great vessels is most helpful in differentiating in the anterior-posterior view between the wide shadow cast by a truncus arteriosus or the narrow shadow seen in instances of transposition of the great vessels In the latter case the shadow of the vessels is broader, as seen in the left anterior oblique view, and some degree of congestion of the lungs may be present Certain cases of transposition of the great vessels may survive into the childhood years if there are associated septal defects of sufficient size or patency of the ductus arteriosus to allow for appropriate and adequate shunts to support systemic and pulmonary circulation.

A clinical picture somewhat similar to the tetralogy of Fallot is presented by congenital tricuspid atresia or stenosis This malformation results in an underdeveloped right ventricle and associated pulmonary stenosis with decreased blood flow to the lungs Blood from the right auricle must escape through a widely patent foramen ovale or interauricular septal defect The important diagnostic features are the absence of enlargement in the region of the right ventricle, especially as noted in the roentgen left anterior oblique view, clear lung fields, and definite to marked left axis deviation in the electrocardiogram As these cases can be benefited by the Blalock or Potts procedures to increase blood flow to the lung, they should be considered as candidates for surgery [8 9]

The Eisenmenger complex may be present in cases where there is later development and milder degree of cyanosis than is usually seen in cases of tetralogy of Fallot Usually cyanosis appears in adolescence or early adult years A high interventricular septal defect and overriding of the aorta are present This syndrome differs from the tetralogy of Fallot in that there is no pulmonary stenosis but instead dilatation of the pulmonary artery This differential diagnosis is readily made by x-ray and fluoroscopy which show considerable increase in convexity and pulsation in the upper third of the left cardiac border and congestion of the lung fields due to increased pulmonary flow Cyanosis in these cases is partially the effect of admixture of arterial and venous blood in the overriding aorta but probably more in later life due to pulmonary vascular changes An operation to increase pulmonary flow is obviously contraindicated in the Eisenmenger complex

Instances of pulmonary stenosis, if associated with a right to left flow occurring through wide patency of the foramen ovale or an associated interauricular septal defect, will show cyanosis Cyanosis may be present early in life or develop in adult years Its appearance probably is related to onset of failure and increased pressure in the right auricle, which is seen to be enlarged on x-ray examination

Finally, cyanosis and clubbing may be an indication of the presence of an arteriovenous fistula in the lung As this relatively rare condition can be cured by surgical excision, the



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FIG 2 (A) Posteroanterior roentgenogram showing globular-shaped heart with left ventricular enlargement

(B) Angiocardiogram in posteroanterior position showing concurrent visualization of right and left ventricles with visualization of aorta within two cardiac cycles after the right auricle.

reported that the appearance was consistent with the diagnosis of patent ductus arteriosus which had been considered as a tentative diagnosis by the referring clinic

Cardiac catheterization was performed The blood oxygen content of various samples was as follows

LOCATION	OXYGEN CONTENT (VOLUMES PER CENT)
Superior vena cava	9 1
Superior vena cava	9 4
Right atrium (high)	13 8
Right atrium (mid)	13 7
Right atrium (low)	13 6
Right ventricle	13 8
Oxygen capacity	15 8

The angiocardiogram showed considerable enlargement of the right ventricle and right auricle The left auricle was also distinctly enlarged The aorta was small The pulmonary artery was very much dilated (Fig 1B) On some of the roentgenograms there was a suggestion of continued visualization of the right auricle beyond the usual period of emptying

Comment.—In this case the history, the appearance of the conventional roentgenogram, and some of the physical findings were consistent with the diagnosis of patent ductus arteriosus However, the findings on the microplethysmogram did not support this impression The demonstration by angiocardiography of enlarged right heart chambers in addition to marked dilatation of the pulmonary artery and the suggestive continued visualization of the right auricle supported the diagnosis of interatrial septal defect The crucial demonstration of a marked increase of oxygen content of right auricular blood over that in blood samples obtained from the superior vena cava was unequivocal evidence of a shunt from the left atrium into the right via an interatrial septal defect

Attempts to catheterize the pulmonary artery in this case did not succeed, a difficulty which is encountered in about 25 per cent of our cases Thus it was not possible to obtain blood from the pulmonary artery and exclude the possibility of an associated patent ductus arteriosus

Case 2 Pulmonary Stenosis and Interatrial Septal Defect (*Diagnosis by Cardiac Catheterization and Angiocardiography—Corroboration at Autopsy*) —This was the first hospital admission of a twenty-two-month-old female At the age of one month she is said to have choked on her feedings She was thought to have an enlarged thymus for which she received radiotherapy A cardiac murmur was noted at this time. At the age of twelve months the child was hospitalized because of croup At this time the murmur was again noted, but there was no evidence of cyanosis The latter, as well as easy fatigability, were first noticed at the age of seventeen months Four months later the patient developed a cough and dyspnea on exertion It was noted that the finger nails were cyanotic at rest

She was an underdeveloped infant weighing 21 pounds The lips were intensely cyanotic The heart was enlarged to the left with a diffuse forceful apical impulse There was a loud, rough systolic murmur, most prominent in the third left intercostal space and transmitted over the entire precordium The liver was palpated two fingerbreadths below the costal margin The electrocardiogram disclosed right axis deviation. The findings in the precordial and unipolar limb leads were indicative of right ventricular hypertrophy The hemoglobin was 15 3 Gm , and there were present 7,000,000 red blood cells per cu mm. The rest of the blood count was within normal limits

Fluoroscopy and a routine roentgenogram showed the heart to be globular in shape with enlargement to the left (Fig 2A) The pulmonary artery and its branches were small The aortic knob was normal The barium-filled esophagus was not deviated The microplethysmogram gave no evidence of an extracardiac shunt.



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FIG 1 (A) Posteroanterior roentgenogram showing marked enlargement of pulmonary artery segment, dilatation of smaller pulmonary vessels, and enlargement of left ventricle.
(B) Angiocardiogram in oblique position showing enlargement of right auricle and right ventricle with marked dilatation of pulmonary artery

otherwise discernible These include abnormal position or size of great vessels and cardiac chambers, obstruction to flow of blood because of stenotic lesions in the outflow tracts of the heart or of the great vessels, and localized dilatation of the aorta caused by the infundibulum of a patent ductus arteriosus, as described by Steinberg, Grishman, and Sussman [8] Angiocardiography offers, in many instances, evidence of intracardiac shunts from right to left and vice versa Whereas catheterization yields more data relative to the dynamics of the circulation, angiocardiography furnishes information regarding the anatomic substratum as well as the dynamic sequelae The ability to delineate abnormalities beyond reach of the catheter tip and to portray defects involving no blood gas and pressure changes or changes too small to detect with catheterization are features of angiocardiography which give it added importance in the armamentarium employed in the diagnosis of congenital cardiovascular defects

Our experiences in the following cases are presented as illustrations of the use of these two methods when added to the usual clinical procedures A discussion of the difficulties and limitations encountered is also given.

Case Reports

Case 1 Interatrial Septal Defect (*Demonstration by Cardiac Catheterization*) —This patient was a twenty-two-year-old girl who was first found to have a heart murmur at the age of five For three months prior to admission she noticed palpitation on exertion and for three weeks left anterior chest pain, radiating into the left arm She had dyspnea on climbing stairs. She had never noted cyanosis There was *no history of rheumatic fever*

She was a well-developed girl. The lungs were clear The heart was enlarged. The point of maximal impulse was 2 cm to the left of the midclavicular line in the fifth interspace. There was a blowing systolic murmur heard all over the precordium A short presystolic sound was audible at the apex The pulmonic second sound was louder than the aortic There were frequent extrasystoles with occasional bigeminal rhythm The blood pressure was 104/70 The electrocardiogram showed right axis deviation, prominent P waves, depression of RST_2, RST_3, and RST_4, semi-inverted T_1 and inverted T_4 There was bigeminal rhythm due to recurrent premature beats The blood count was normal. The circulation time with calcium gluconate was twelve seconds and with ether seven seconds The venous pressure was 8 cm with no rise on pressure over the right upper quadrant Micropleth ysmogram from the left index finger did not conform to the pattern usually seen with patent ductus arteriosus

Posteroanterior roentgenogram of the chest showed marked enlargement of the pulmonary artery segment (Fig 1A) The aortic knob was small The left ventricle appeared enlarged. The smaller pulmonary vessels in both lungs were distended Fluoroscopy showed no *displacement of* the barium-filled esophagus The roentgenologist

At a second operation the ductus was successfully ligated. The ductus was found to be short, almost constituting a direct arteriovenous fistula.

Comment.—In this patient the correct diagnosis of patent ductus arteriosus was made at the first admission on the basis of clinical findings and angiocardiography alone On the second admission catheterization was also performed Although quantitative estimation of the volume of the shunt was not attempted, the marked dilatation of the pulmonary artery and left heart chambers, the continuous presence of diodrast in the pulmonary artery, the wide peripheral pulse pressure, the high pressure in the pulmonary artery (mean pressure, 51 mm. mercury and pulse pressure, 14 mm mercury), and the markedly elevated oxygen content of the blood in the pulmonary artery, compared with that *in the right ventricle, were all indicative of a large* shunt from the aorta into the pulmonary artery

Case 4 Subacute Bacterial Endocarditis Engrafted Upon Rheumatic Heart Disease with Aortic Stenosis and Insufficiency (*Exclusion by Catheterization of Recanalization of Previously Ligated Ductus Arteriosus*) —This patient was a nineteen-year-old woman who was first admitted with a history of nocturnal dyspnea since the age of three years A heart murmur had been detected at the age of three Recently, she had complained of precordial distress on exertion

The patient appeared chronically ill and was mildly febrile The liver and spleen were palpable The heart was enlarged, the apex extending to 3 cm beyond the midclavicular line A systolic pulmonic thrill was present Loud pulmonic systolic and diastolic murmurs were audible, and these were widely transmitted over the precordium The blood pressure was 110 systolic and 50 diastolic The circulation time with calcium gluconate was seven seconds, while the ether circulation time was two seconds The venous pressure was 10 cm of water rising to 14 cm on pressure over the right upper quadrant The electrocardiogram showed left axis deviation and no other abnormalities Roentgen examination of the heart including fluoroscopy showed straightening of the left cardiac border The heart was moderately enlarged to the left and slightly to the right The microplethysmogram was interpreted as indicating an extracardiac arteriovenous shunt

On the basis of the character and location of the murmurs, the cardiac contour on x-ray examination, the large pulse pressure, and the microplethysmogram, a diagnosis of patent ductus arteriosus was made, and ligation of the ductus was advised.

At operation the heart was found to be enlarged The ductus was of large caliber and was tied at each extremity by many silk ligatures Immediately after ligation the thrill disappeared, and the heart rate slowed perceptibly The patient's temperature declined to normal on the third postoperative day and remained normal until discharge Before discharge it was noted that a diastolic pulmonic murmur was still present, but this was much less intense than before operation The significance of this residual murmur was not clear Such possibilities as dilatation of the pulmonic ring or an associated aortic insufficiency were suggested The patient was discharged to a convalescent home

Following operation the patient had pronounced dyspnea and palpitation on walking or climbing stairs Her physician noted the reappearance of a continuous murmur, and the patient began to have irregular fever She was therefore readmitted to the hospital about four weeks after discharge

At this time the patient had mild fever The lungs were clear Examination of the heart now disclosed a systolic thrill and murmur over the aortic area and in the neck. A diastolic murmur to the left of the sternum near the pulmonic area was audible, and at this site a diastolic thrill was palpable The blood pressure was now 130 systolic and 0 diastolic

Because of the fever and the reappearance of a *systolic and diastolic murmur, it was suggested that* recanalization of the ligated ductus arteriosus must have occurred and that there might be an associated subacute bacterial endocarditis involving the ductus or right side of the heart However, the peripheral vascular phenomena such as collapsing pulse, wide pulse pressure, the character and localization of the murmurs carefully studied by phonocardiography, and the "pistol shot" brachial pulse led some observers to suggest that a likely possibility was aortic stenosis and insufficiency with superimposed subacute bacterial endocarditis Peripheral venous blood cultures were consistently negative

It was important to resolve this difference of opinion, since recanalization of the ductus and associated subacute bacterial endocarditis would be an indication for reoperation At this point the patient was subjected to cardiac catheterization

The oxygen content of blood samples obtained at catheterization were as follows

Location	Oxygen Content (Volumes Per Cent)
Right pulmonary artery	7 7
Main pulmonary artery	7 4
Right ventricle	7 3
Right ventricle	7 9
Right atrium	7 1
Superior vena cava	7 0
Oxygen capacity	11 0

A blood sample from the right pulmonary artery was obtained for culture This disclosed a contaminant only

The findings at catheterization excluded a significant arteriovenous shunt into the pulmonary artery A diagnosis of bacterial endocarditis engrafted upon rheumatic heart disease with aortic stenosis and insufficiency was made The patient subsequently developed petechiae and other embolic phenomena After many negative blood cultures one yielded Streptococcus viridans in one flask. The patient was given routine penicillin therapy for the next eight weeks with recovery from the infection There was no significant alteration, however, in the cardiovascular phenomena described

Comment.—In this instance it was not possible from physical signs alone to differentiate with certainty between aortic disease with superimposed bacterial endocarditis and a recanalized ductus arterio-

Cardiac catheterization was performed through the right saphenous vein A number 7 catheter was passed up through the inferior vena cava into the right atrium and then into the right ventricle At the region of the outflow tract of the right ventricle the catheter tip seemed arrested and could not be passed into the pulmonary artery nor could it be passed into the aorta The catheter was then withdrawn into the right atrium again It was then advanced across the heart shadow toward the left border at a more cephalad level than previously It was thought to have passed through an interatrial septal defect into the left atrium The oxygen content of the blood samples were as follows

Location	Oxygen Content (Volumes Per Cent)
Right atrium	8 2
Left atrium	12 4
Right ventricle (mid)	8 8
Right ventricle (outflow tract)	8 5
Inferior vena cava	9 2
Left femoral artery (done day after catheterization)	10 8
Oxygen capacity	18 9
Percentage saturation	57

The angiocardiogram demonstrated an interatrial septal defect The left atrium visualized almost simultaneously with the right The aorta was visualized within two cardiac cycles after the right auricle (Fig 2B) The right ventricle and the pulmonary artery were dilated It was impossible to determine whether diodrast had reached the aorta by passing through the left atrium and left ventricle or from the right ventricle by way of an overriding aorta

The child developed mild diarrhea Her condition grew worse, and she finally died in coma, three weeks after admission Postmortem examination demonstrated the presence of a large interatrial septal defect and valvular pulmonary stenosis with dilatation of the pulmonary artery The right ventricle and atrium were hypertrophied The ductus arteriosus was obliterated

Comment.—This is a case of pulmonary stenosis associated with an interatrial septal defect The presence of the septal defect was determined in vivo by the passage of the catheter through the defect into an area later shown by angiocardiography to be the left atrium This was corroborated by the distinctly higher oxygen content of the blood obtained from the left atrium than from the right Final confirmation of a defect was obtained by the fact that the left atrium opacified immediately after the right atrium

Inability to catheterize the pulmonary artery with the catheter plainly in the outflow tract of the right ventricle was suggestive of pulmonary stenosis as was the absence of forceful pulsations at the pulmonary artery segment on fluoroscopy Pressure determinations were not made because of technical difficulties, but these would have been valuable only if the pulmonary artery had been catheterized and a differential in pressure between the artery and the right ventricle in favor of the latter had been demonstrated

In this case the possibility of an overriding aorta could not be excluded by angiocardiography, since both an interatrial shunt from right to left and an overriding aorta lead to early opacification of the aorta An overriding aorta is infrequently demonstrated at catheterization when it is found possible to advance the catheter tip from the right ventricle into the aorta, but this was not possible in the case just detailed Both angiocardiography and catheterization may, therefore, be unsuccessful in differentiating between pulmonary stenosis associated with interatrial septal defect, as in this instance, and tetralogy of Fallot in which a patent interatrial septal defect is an added anomaly

Case 3 Typical Patent Ductus Arteriosus (*Cardiac Catheterization and Angiocardiographic Findings*) —This patient was a twenty-three-year-old man who was first admitted to the Mount Sinai Hospital in 1946 At that time he gave a history of a cardiac murmur since birth He complained of the recent development of dyspnea, palpitation, and tachycardia on exertion

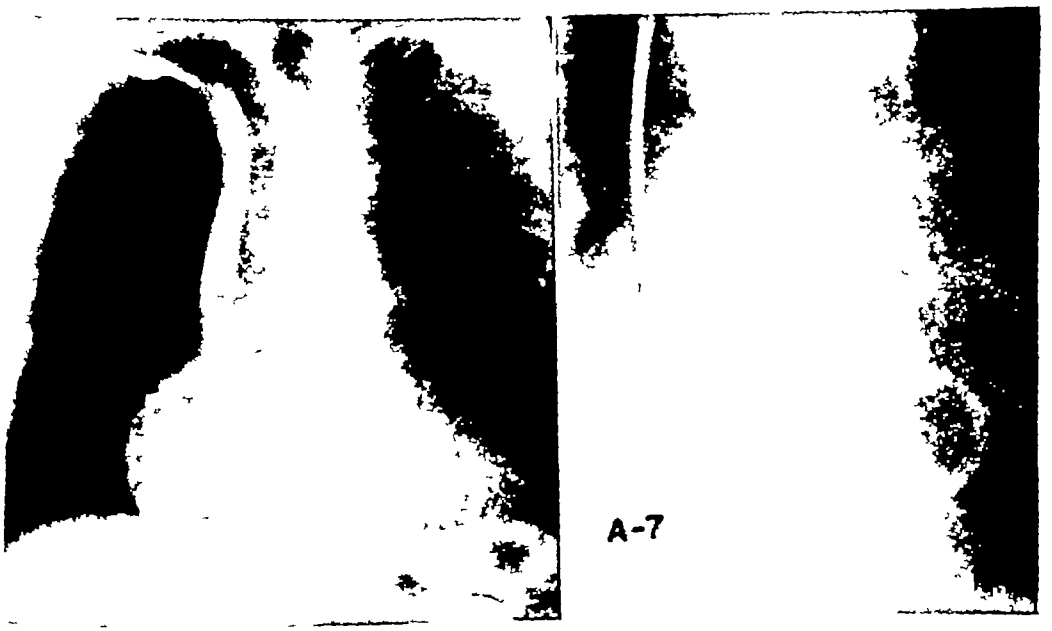
The cardiac findings were as follows The heart was enlarged, the point of maximal impulse being in the midaxillary line There was a marked systolic thrill which was most prominent over the third interspace to the left of the sternum In this area there was a loud systolic murmur followed by a faint diastolic murmur The blood pressure was 135 systolic and 45 diastolic The electrocardiogram showed changes seen in generalized enlargement without special axis deviation A routine roentgenogram showed an enlarged heart with dilated pulmonary artery An angiocardiogram disclosed an enlarged left atrium and left ventricle and dilated pulmonary artery with relatively little dilatation of the right heart

On the basis of these findings an exploratory thoracotomy was performed for ligation of a patent ductus arteriosus Ligation was attempted, but because of technical difficulties it was abandoned

The patient was readmitted about two years later The physical and routine roentgen findings were the same as before Cardiac catheterization was performed and followed by angiocardiography The blood oxygen findings at catheterization were as follows

Location	Oxygen Content (Volumes Per Cent)
Right ventricle	11 1
Right ventricle	11 2
Right pulmonary artery	17 0
Main pulmonary artery	14 6
Right brachial artery	18 6
Oxygen capacity	19 7
Percentage saturation	94

The angiocardiogram showed an extremely dilated pulmonary artery The aorta did not visualize well The descending aorta did not visualize at all There was diodrast continuously in the pulmonary artery The left heart was markedly enlarged



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FIG 4. (A) Angiocardiogram in posteroanterior position showing diodrast entering right auricle from superior vena cava with division of stream of diodrast to outline filling defect in right auricle (B) Spot film showing catheter coiled within right auricle Catheter tip reached to outer limit of "juxtacardiac shadow" showing it to be part of the heart

close any of the usual causes of pulmonary artery enlargement The oxygen content of the blood from the right heart and pulmonary artery and the pressures in these areas showed no evidence of a shunt The mean pressure in the right ventricle was 10 mm. of mercury and that in the left pulmonary artery 15 mm. of mercury, which we considered within normal limits with our apparatus Pulse tracings were not sufficiently satisfactory to justify an analysis but indicated that pulse pressures also were of a normal order There was no electrocardiographic evidence of right axis deviation The angiocardiogram showed no enlargement of the right heart chambers and no evidence of an intracardiac shunt Within the limits of our diagnostic aids, then, it is possible to exclude such causes of pulmonary artery enlargement as patent ductus arteriosus, interatrial septal defect, Eisenmenger complex, and mitral stenosis The negative serology and normal contour of the ascending aorta strongly militate against the remote possibility of syphilitic aneurysm of the pulmonary artery It seems, in the light of these facts, a fair presumption, therefore, that this is a case of idiopathic dilatation of the pulmonary artery

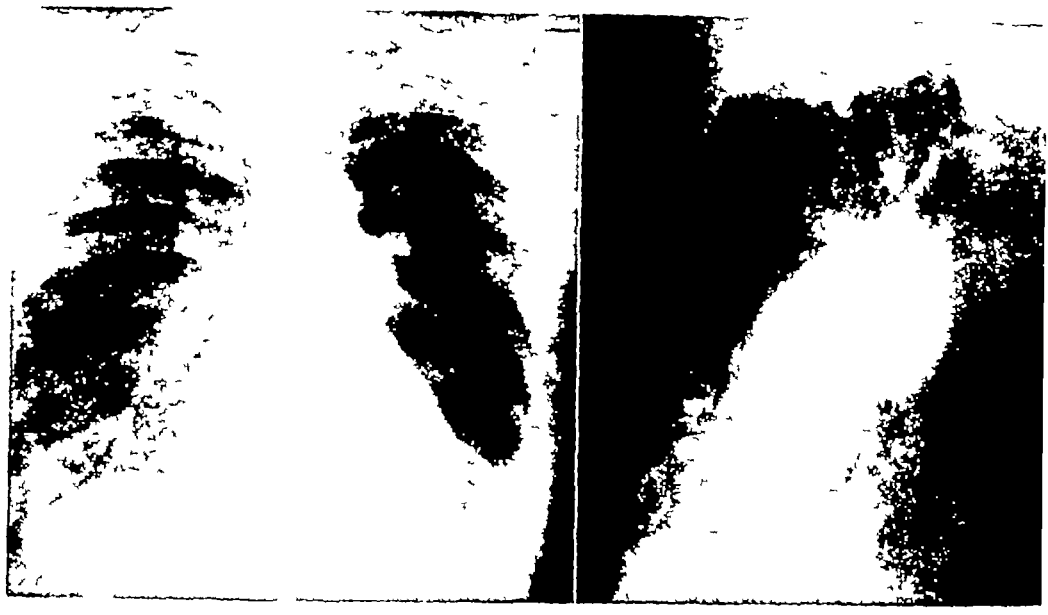
Case 6 Aneurysm of the Right Sinus of Valsalva (*Demonstration by Angiocardiography*) —This was the first hospital admission of a thirty-four-year-old white woman whose chief complaint was repeated small hemoptysis for one and a half years There was no associated cough, chest pain, night sweats, or fever There was no history of tuberculosis contact Because of the persistently recurring hemoptysis chest x-rays were taken These are said to have disclosed "a mass in the right lung field near the heart The only relevant facts in her past history were that a heart murmur was discovered ten years before and that hypertension was known for four or five months

The patient was a rather small, although well-developed female The heart percussed enlarged The point of maximal impulse was in the fifth intercostal space outside the midclavicular line The first sound at the apex was accentuated The aortic second sound was greater than the pulmonic. At the apex there was present a soft systolic murmur In the fourth intercostal space to the right of the sternum there was audible a to-and-fro systolic-diastolic murmur which was transmitted up the sternum The blood pressure was 186 systolic and 90 diastolic There was no decrease of pressure in the lower extremities The lungs were clear

The electrocardiogram showed left axis deviation T_3 was inverted, and T_4 was diphasic, suggesting a transverse position of the heart

X-ray of the chest disclosed a globular mass in the lower right chest which could not be separated from the heart shadow Electrokymographic studies revealed the mass to pulsate actively

During cardiac catheterization it was noted, first, that the catheter tip reached to the outside limit of the shadow in the right chest, indicating definitely that it was part of the heart mass (Fig 4B) Second, it was observed that there was unusual difficulty in passing the catheter tip through the right auricle and into the right ventricle The significance of this observation was not clear at the time It was only clarified when the angiocardiograms were studied



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FIG 3 (A) Posteroanterior roentgenogram of chest showing marked prominence of pulmonary artery segment and slight enlargement of left ventricle
(B) Angiocardiogram in oblique position showing marked dilatation of pulmonary artery

sus with infective endocarditis This case illustrates the value of cardiac catheterization in excluding the canalization of a previously ligated ductus arteriosus The demonstration that the oxygen content of the blood throughout the lesser circulation was more or less constant was cogent evidence against a significant shunt through a recanalized ductus arteriosus Furthermore, the result of the culture of blood obtained from the right pulmonary artery gave some reason to believe that an infection of the right side of the heart, not detectable from peripheral venous blood culture, was not being overlooked In this instance the findings obtained at catheterization were of practical importance They precluded reoperation and, by exclusion, led to the correct diagnosis and therapy

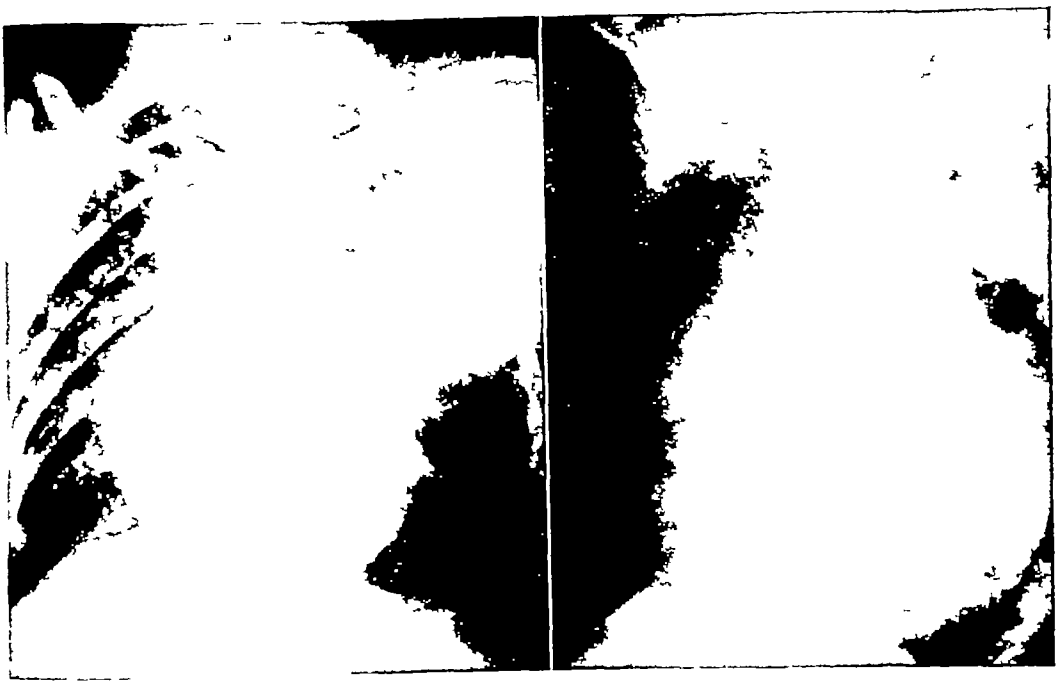
Case 5 Idiopathic Dilatation of the Pulmonary Artery (*Diagnosis by Exclusion, Using Cardiac Catheterization and Angiocardiography*) —This patient was a forty-eight-year-old Negro woman sent to the cardiac clinic of the outpatient department because of the detection of a murmur ascribed to congenital heart disease Except for vague chest pain she had no significant complaints There was no history of rheumatic fever or of any of its manifestations in childhood

Physical examination disclosed no abnormalities other than those related to the heart The apex beat was not easily felt The sounds were of fair quality Over the midsternal region a short soft systolic murmur and a long moderately harsh diastolic murmur were audible Both were transmitted radially to the entire precordium. The blood pressure was 130 systolic and 80 diastolic The blood Wassermann reaction was negative. Roentgen examination of the heart including fluoroscopy showed the left ventricle to be somewhat rounded and broadened (Fig 3A) There was no evidence of enlargement of the right ventricle or either auricle The pulmonary artery appeared dilated and hyperdynamic The electrocardiogram was normal and showed no axis deviation. A phonocardiogram disclosed the presence of a low amplitude systolic murmur of high frequency components at the pulmonic area. The second sound at the pulmonic area was of high amplitude and was followed by a descrescendo diastolic murmur of high frequency components and moderate amplitude, the latter considered consistent with a Graham Steel murmur

On angiocardiography the pulmonary artery was found to be considerably dilated (Fig 3B) The right side of the heart was normal The left ventricle was perhaps slightly dilated The left auricle did not visualize clearly The ascending aorta was normal in outline Cardiac catheterization was performed and the blood oxygen findings were as follows

LOCATION	OXYGEN CONTENT (VOLUMES PER CENT)
Superior vena cava	11 6
Right auricle	11 6
Right auricle	11 5
Right ventricle	11 1
Right ventricle	10 7
Left pulmonary artery	11 1
Right brachial artery	15 4
Oxygen capacity	16 1
Percentage saturation	96

Comment —The central feature of this case is dilatation of the pulmonary artery The findings on catheterization and angiocardiography failed to dis-



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FIG 5 (A) Posteroanterior roentgenogram showing enlargement of left ventricle Conformation and position of heart shadow altered by chest conformity
(B) Angiocardiogram in oblique position showing stenosis of descending aorta with poststenotic dilatation

and a half years he was hospitalized because of generalized edema and was treated for decompensation with digitalis He improved rapidly and was maintained on digitalis until the age of six Since then there had been no evidences of diminished cardiac reserve Six weeks before admission he returned from summer camp where he had been well and had participated in all camp activities He developed a sore throat on his return, was treated with sulfonamides for three days, and recovered. One week later he again became febrile, and, when there was no response to sulfa drugs, he was admitted to the hospital

He was a thin, moderately well-developed, adolescent male, febrile, and appearing acutely ill. There were signs of a bronchopneumonia at the left base which apparently accounted for the fever which subsided spontaneously after five days His cardiac findings attracted clinical interest The heart was enlarged to the left and to the right There was a loud blowing systolic murmur over the entire precordium which was loudest in the fourth intercostal space just to the left of the sternum The pulmonic second sound was accentuated The blood pressure in the left arm was 140/84 and in the left leg 130/80 The electrocardiogram revealed unusual axis deviation RST_1, RST_2, and RST_3 were slightly depressed P waves were prominent T_2 was diphasic, and T_3 was inverted The character of the electrocardiogram, including precordial leads, suggested hypertrophy of the ventricles with clockwise rotation of the heart The venous pressure and circulation times were normal

The phonocardiogram showed a systolic murmur composed of high-frequency components, recorded maximally at the fourth and fifth intercostal space to the left of the sternum. The pulmonic second sound was of high amplitude

The carotid and venous pulses were normal Simultaneous recordings of the radial and femoral pulses indicated a delay in pulse wave transmission to the lower extremities

Microplethysmographic studies of the left index finger and the left great toe showed normal volume-pulse relationships The pattern did not resemble that seen in patent ductus arteriosus

A routine chest film showed enlargement of the heart to the right and left (Fig 5A) The apex of the left ventricle was very much rounded The root of the pulmonary artery appeared large

Two attempts at catheterization were unsuccessful because of local venospasm.

The angiocardiogram showed moderate dilatation of the right auricle (Fig 5B) The right ventricle was slightly dilated and displaced to the right The pulmonary artery was dilated The left auricle was of normal size The left ventricle was markedly enlarged The aorta showed a definite coarctation just beyond the aortic arch with poststenotic dilatation There was no evidence of an intracardiac shunt

Comment.—This patient, strongly suspected of having a congenital defect, could not be catheterized because of technical difficulties Routine physical examination gave no definite evidence of the nature of the disorder Delay of femoral pulse transmission was evidence in favor of a stenotic lesion along

The blood oxygen findings were as follows

Location	Oxygen Content (Volumes Per Cent)
Superior vena cava	8 7
Right atrium	11 9
Right ventricle (high)	12 4
Right ventricle (low)	11 8
Pulmonary artery	11 5
Inferior vena cava	12 6
Brachial artery	15 0
Oxygen capacity	16 1
Percentage saturation	93

The angiocardiogram, done immediately after catheterization, showed the radio-opaque fluid to enter the right auricle and then divide into two streams surrounding a filling defect within the right auricle (Fig 4A) This filling defect was identified in subsequent exposures as a mass indenting the right auricle which became opaque at the same time as the aorta This suggested strongly that the mass was an aneurysm of the right sinus of Valsalva The mass did not empty as rapidly or as easily as the aorta It was significant that there was a faint continued density in the heart throughout most of the observations so that a perforation of the aneurysm into one of the right heart chambers might be present The left ventricle was dilated The remaining chambers and the pulmonary artery were not abnormal The aorta was noted to be irregular in outline

The opinion of the surgeons was that, because of the location, wiring this aneurysm would be a hazardous procedure The patient was therefore discharged from the hospital

Comment.—This is an instance where the angiocardiogram furnished a precise portrayal of an anatomic abnormality which would have not otherwise been obtainable It was in this case indispensable to the diagnosis

Because of the pronounced difference in oxygen content between the superior and inferior vena cava, it was not possible from the oxygen determinations to state that a shunt from the aneurysm into the right auricle or ventricle existed. The intracardiac pressure tracings, taken within the right heart chambers, were within normal limits which was evidence against any significant shunt, even though this diagnosis was suggested by the murmurs

Case 7 Double Superior Vena Cava in a Case of Tetralogy of Fallot (*Demonstration by Angiocardiography*) —This patient was a seven-year-old Negro girl with a history of cyanosis and exertional dyspnea since the age of ten months For several months before admission her dyspnea had become more pronounced She became chronically fatigued and her activity became very limited There was no history of peripheral edema

The child was poorly developed She was frequently found in a squatting position in bed There was a dusky hue to the nailbeds and cyanosis of the mucous membranes Mild clubbing of the fingers was present The heart was enlarged to percussion, as was the area of the superior mediastinum. The heart sounds were of good quality A loud, coarse, high-pitched systolic murmur was heard with maximal intensity in the second left interspace at the left sternal border In this area a systolic thrill was palpable The lungs were clear The liver and spleen could not be felt The hemoglobin was 12 5 Gm, the blood count being essentially normal

Roentgen examination of the chest showed enlargement of the heart to the right with marked rounding of the right cardiac contour in the left oblique position indicating considerable enlargement of the right ventricle The root of the pulmonary artery was not well delineated The superior mediastinal shadow was wide

Attempts at catheterization were unsuccessful because of inability to advance the catheter tip into the superior vena cava despite persistent effort. The oxygen content of the arterial blood was 12.6, the oxygen capacity 20 4, and the percentage saturation 61 8 volumes per cent

On angiocardiography, performed through the right antecubital vein, the following observations were made There was evidence of pulmonary stenosis, the pulmonary valve and the base of the main pulmonary artery being very narrow There was also evidence of an overriding aorta, there being very early opacification of the aorta It seemed likely, also, that there was an interventricular septal defect On some of the films there was a suggestion of flow of diodrast from the right atrium into the left, which would indicate an associated interatrial septal defect, but this was not conclusive The width of the superior mediastinum was explained in part by the demonstration of a dilated superior vena cava. However, it was noted that the left border of the superior mediastinum extended beyond any demonstrated vascular structure The possibility of a second superior vena cava on the left side to account for this shadow was suggested

A second angiocardiogram was done, the contrast medium being injected into the left antecubital vein. This demonstrated conclusively the existence of a second superior vena cava and accounted fully for the left portion of the wide superior mediastinal shadow

This patient had a Blalock procedure performed at another hospital at which time these findings were confirmed The patient was seen six months after operation when she was much improved

Comment —This case illustrates the value of angiocardiography where catheterization through the upper extremity was impossible because of sharp angulations at the junctions of the subclavian veins and the superior vena cavae. It was possible by angiocardiography alone to demonstrate the essential characteristics of the tetralogy of Fallot Furthermore, it conclusively elucidated the anatomy of the wide superior mediastinal shadow Once these facts had been satisfactorily ascertained, it seemed unnecessary, for diagnostic purposes only, to subject the patient to still another catheterization via the saphenous vein

Case 8 Coarctation of the Aorta (*Demonstration by Angiocardiography*) —This was the first hospital admission of a sixteen-year-old boy who was known to have an enlarged heart and a murmur since in fancy He was never cyanotic At the age of two

cially of the left side Hypertrophy frequently gives way to dilatation with diminishing ability of the heart to maintain its constant, heavy load Thus, varying degrees of circulatory insufficiency ensue In the latter connection, it is obvious that the longer the heart is subjected to great strain, the greater are the chances that cardiac failure will supervene Thus the likelihood of cardiac failure increases with age The final factor to be considered in the production of cardiac failure is the physical activity of the patient During infancy, when the child sleeps a large part of the time and does not walk, minimal circulatory demands are made upon the heart As the child grows older and begins to walk, and then to run and jump during play, the cardiac load becomes increasingly greater Thus, with ever-increasing circulatory demands being made upon the heart, the likelihood of cardiac failure grows greater

Retardation of growth and development appears, in general, to be directly proportional to the diameter of the open ductus As mentioned previously, the greater the diameter of the ductus, the greater is the "leakage" from the aorta into the pulmonary artery The greater the leakage from the aorta, the less is the peripheral blood flow Since physical growth is dependent upon adequate nourishment of all of the tissues of the body by arterial blood, it is apparent that significant retardation of growth must be the inevitable accompaniment of diminished peripheral blood flow It is interesting to note that, in many instances, a child with a patent ductus may grow and develop normally In such cases, at operation, I have invariably found the ductus to be relatively small Similarly, when symptoms of circulatory insufficiency have been absent, other factors being equal, the most common finding at operation has been a ductus of relatively small caliber

In 1940, the author and Vesell added another indication for operation in cases of patent ductus arteriosus, e g , subacute bacterial endarteritis [3] This additional operative indication has stood the test of time and has taken its place beside those already mentioned [4] Thus, all clinicians appear presently to be in agreement concerning the wisdom of operation upon children who present evidence of circulatory insufficiency, retarded physical development, and infection of the ductus However, there appears to be a widely held view that, once an individual with patent ductus arteriosus has passed safely through childhood into adolescence and adult life, his future is secure and his life expectancy as great as that of his neighbor It is natural that pediatrists, observing certain children with patent ductus leading normal lives and apparently unhandicapped, should assume that such individuals remain well after leaving their care Personal observation of a substantial group of adults with patent ductus arteriosus has convinced the author that such not only is not necessarily the case but also is rather unusual Indeed, such a state of affairs is so uncommon that when an adult with patent ductus lives to a ripe old age, it usually constitutes an occasion for reporting the case in detail

Turning now to adults suffering from patent ductus, failure of normal growth and physical development may at once be eliminated as an indication for operation The reason for the foregoing, obviously, is that by the time the patient has reached adult life he has ceased growing Under such circumstances, operative treatment cannot be expected to result in further growth of bodily structures which have already attained their maximum size Thus, in adults there remain only two indications for operation, namely, circulatory failure and subacute bacterial endarteritis

In the author's experience, circulatory failure is a much more common complication among adults than among children As stated previously, the factors responsible for cardiac failure are (1) the diameter of the ductus, (2) the physical activity of the patient, and (3) the duration of the lesion. Assuming that a ductus is of identical size in a child and an adult, it is apparent that the usually greater physical activity of an adult as compared with that of a young child imposes a greater strain upon the heart of the former and constitutes one of the factors responsible for the higher incidence of cardiac failure among patients in the older age groups In considering the duration of the lesion as a factor responsible for cardiac failure, it is apparent that duration, as measured in terms of age of the patient, constitutes one of the most important factors that operates to produce circulatory failure with frequency in adults Since continued cardiac strain is an important factor leading to cardiac breakdown, it is natural that the older the patient with a patent ductus, the greater the likelihood of circulatory failure And finally, in adults an additional factor comes into play I refer specifically to myocardial degeneration The latter may be considered to be almost a "normal" development in adults In young children and adolescents in general, the myocardium is of excellent "quality" Translated into practical terms this implies good cardiac reserve With the passage of years, so-called "normal" degenerative changes occur The latter include fatty infiltration and fibrous degeneration As a result of these degenerative changes, the ability of the heart to withstand the continuously heavy load imposed upon it by the presence of the patent ductus eventually becomes lessened The result

the greater circulation Angiocardiography furnished precise delineation of the defect by demonstrating a typical coarctation of the aorta with poststenotic dilatation

In the absence of oxygen determinations obtained at catheterization, it is not possible to exclude completely the possibility of an associated patent ductus arteriosus However, the nature of the murmurs as recorded by phonocardiography and the plethysmographic findings make such a possibility seem remote

Summary

1 A group of cases is presented to illustrate the integrated use of cardiac catheterization and angiocardiography in the diagnosis of congenital cardiac lesions

2 The limitations of the procedures and the difficulties encountered are discussed

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THE INDICATIONS FOR OPERATION IN PATENT DUCTUS ARTERIOSUS (WITH SPECIAL REFERENCE TO ADULTS)

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A NEW era in cardiovascular surgery began in 1939 when Gross and Hubbard reported the first successful ligation of a patent ductus arteriosus [1] During the decade that has elapsed since then, surgery has become firmly established as the sole definitive form of therapy for this congenital cardiovascular anomaly The general acceptance of surgical therapy at the present time is based upon the clear demonstration that, in the hands of experienced surgeons, the morbidity and mortality of operation is negligible as compared with the morbidity and mortality of the disease when the latter is permitted to go untreated

Ductal interruption by ligation or division is a truly corrective procedure in the sense that the surgeon is able to accomplish that which nature failed to do for the patient in the neonatal period (This is in contrast to a procedure such as the Blalock operation for the tetralogy of Fallot, in which the existing anatomic defects within the heart are not corrected but an additional anomaly added in order to ameliorate or eliminate certain serious and disabling symptoms) The value of operation in patent ductus arteriosus has long since been demonstrated so conclusively that any communication dealing with the subject appears to be almost superfluous However, relatively little attention appears to have been paid to the problem of patent ductus arteriosus in adults The personal experience of the author has led him to the conclusion that the latter often constitutes a much more serious lesion than patent ductus in children. Accordingly, it is the purpose of this communication to review the indications for operation and to stress especially the wisdom of operation in adults

The indications for operation in children, as originally set forth by Gross, were circulatory insufficiency and retardation of normal growth and development [2] The age at which circulatory failure supervenes during childhood may be considered to depend essentially upon three factors The first factor is the actual diameter of the open ductus, the second is the duration of the lesion, or, in other words, the age of the patient, and the last is the physical activity of the patient In the presence of an open ductus, blood flows continuously from the aorta into the pulmonary artery This is so because, regardless of the phase of the cardiac cycle, the pressure of blood within the aorta is higher than the pressure of blood within the pulmonary artery As a result of "leakage" of blood from the aorta into the pulmonary artery, the amount of blood which flows into the aorta beyond the site of the "leak" (patent ductus) is reduced significantly In order to maintain an adequate peripheral circulation in the presence of such a leak, the cardiac rate speeds up, and cardiac output is thereby increased The inevitable result of the increased activity of the heart—which perforce must continue uninterruptedly, day and night—is cardiac hypertrophy, espe-

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active, the incidence of circulatory insufficiency increases. Furthermore, the incidence of subacute bacterial endarteritis also increases significantly Once the child enters school, operation should be considered one of "necessity"

Once the patient has reached adolescence or adult life, the incidence of circulatory insufficiency and infection becomes appreciably greater In fact, these complications become almost inevitable with the passing years Furthermore, operation becomes increasingly difficult and dangerous as the patient grows older During adolescence and adult life, the indication for operation becomes "urgent"

In order to illustrate some of the points which have been made, the following case of patent ductus arteriosus in an adult is presented

Case Report

F S, a married white woman, aged twenty-six, was admitted to the surgical service of the author at Mount Sinai Hospital on May 6, 1948, with the chief complaint of shortness of breath and easy fatigability of ten months duration When she was one week old, her parents were told that she had a "congenital cardiac lesion." During her entire life she adhered to a regime of restricted physical activity and, aside from scarlet fever at the age of five, remained relatively well.

At the age of twenty-two, the patient married, two years later she became pregnant During the first four months of pregnancy she was quite well but at the end of that period began to suffer from malaise, easy fatigability, shortness of breath, and fever Temperature, which at first was mild, gradually became higher and more septic in type Concomitantly, the patient began to lose weight and became anemic Shortly thereafter, sweats and intermittent chills were noted. The clinical diagnosis of patent ductus arteriosus with superimposed subacute bacterial endarteritis was then made, the presence of infection being confirmed by blood cultures which revealed scattered colonies of Streptococcus viridans.

The patient was placed on massive doses of penicillin and, soon thereafter, blood cultures became sterile For the remaining five months of her pregnancy, she was maintained on intensive penicillin therapy Repeated blood cultures taken during that period remained sterile Her general condition gradually improved, and she was delivered of a normal infant at term. Penicillin therapy then was discontinued, the patient remaining well thereafter until approximately ten months prior to her admission

Ten months preceding admission, she began to suffer from palpitation and "heart consciousness" At the same time, she became progressively short of breath, even on walking slowly Marked fatigue reappeared Examination by her family physician disclosed marked enlargement of the heart and tachycardia. Accordingly, she was subjected to detailed study



FIG 1 Preoperative film of chest Note marked cardiac enlargement, prominence of pulmonary artery segment and bilateral pulmonary vascular congestion.

On physical examination, the patient was noted to be of slight stature Blood pressure was 112/40 Pulse rate was 110 at rest. The significant physical findings were confined to the heart. On auscultation, a loud machinery murmur with systolic accentuation was heard over the third interspace immediately to the left of the sternum. The murmur was transmitted for a short distance upward and downward, along the edge of the sternum. It also was audible in the left interscapular area. A coarse systolic thrill was palpable in the third left interspace close to the edge of the sternum.

The electrocardiogram revealed evidence of left ventricular preponderance. X-ray examination of the chest revealed the heart to be considerably enlarged, especially toward the left. The pulmonary artery segment was unusually prominent. Bilateral pulmonary vascular congestion was present (Fig 1) On fluoroscopy marked pulsation of the pulmonary artery (hilar dance) was noted Angiocardiography disclosed the presence of a greatly enlarged pulmonary artery and dilatation of the left ventricle A localized dilatation of the aorta was noted at the point where the aorta and pulmonary artery tended to approximate one another The microplethysmographic tracings were characteristic of an arteriovenous shunt (extracardiac) such as we have noted in cases of patent ductus A phonocardiographic tracing revealed the presence of a continuous, rough murmur which was loudest over the third left interspace immediately to the left of the sternum. The murmur was both systolic and diastolic in time but was accentuated during systole On the basis of the foregoing clinical and laboratory findings, the diagnosis of patent ductus arteriosus with circulatory insufficiency was made and operation advised

The patient was admitted to Mount Sinai Hospital on May 6, 1948, and operation performed the following day under ethylene-ether-oxygen anesthesia. A left submammary incision was made and the breast mobilized in an upward direction The

is circulatory failure of varying degree In our own experience, we have observed this complication with increasing frequency as patients entered the third, fourth, and fifth decades of life Incidentally, our oldest patient with cardiac failure was sixty-three years of age Therefore, it should be emphasized that cardiac failure remains a threat to the patient with patent ductus arteriosus throughout his life, and that the likelihood of the development of this complication increases with the passage of time

As regards subacute bacterial endarteritis, there is a close parallelism between this lesion and subacute bacterial endocarditis of the type which not infrequently involves cardiac valves previously damaged by rheumatic fever In both instances the infecting organism most commonly is a Streptococcus viridans The source of the infection usually is some chronic focus such as the teeth, tonsils, prostate gland, etc Such foci apparently are relatively uncommon during childhood but develop during adolescence and especially during adult life The latter accounts for the relatively rare occurrence of subacute bacterial valvular and ductal infections during childhood and their much greater frequency at a later period In fact, such infections occur characteristically after puberty As in the case of cardiac failure, subacute bacterial endarteritis may appear at any time during the patient's life, and, accordingly, it must be considered a perpetual threat to life In the author's personal experience, such infections have been encountered as late as the seventh decade of life

An awareness on the part of the clinician that cardiac failure and subacute bacterial endarteritis constitute a perpetual threat to the life of the patient suffering from patent ductus arteriosus and that the likelihood of occurrence of both of these complications increases with the passage of time should lead to the decision to subject the patient to operation regardless of whether or not symptoms are present This dictum applies to all patients suffering from patent ductus arteriosus

A cogent argument in favor of operating at an early date, and preferably during childhood, is the universal opinion of experienced surgeons that operation is much simpler and safer in children than in adults The ductus of a child usually presents the physical characteristics of a normal blood vessel As such, it is resilient, readily compressible, and capable of being manipulated freely without fear of being torn or ruptured By contrast, the ductus of an adult frequently is atheromatous, sclerotic, and calcific When such a ductus is manipulated during operation, the danger of rupture is appreciably greater Furthermore, in adults the pulmonary artery is proportionately much larger in diameter than it is in children Dilatation of the pulmonary artery is invariably accompanied by considerable thinning of the wall of the vessel Not infrequently, the thin-walled, dilated pulmonary artery is adherent to the diseased friable ductus Under such circumstances, it is not difficult to appreciate the increased hazard of operation on adults and the desirability of proceeding with surgical treatment during childhood Finally, there are certain psychologic reasons for operating on patients with patent ductus while they are still quite young

In our present-day educational system, it is the rule to segregate all so-called "cardiac" children from their normal classmates This segregation is carried out regardless of the nature of the cardiac lesion or the degree of disability which it produces Thus, practically all patients with patent ductus arteriosus are so segregated Children in "cardiac" classes are not permitted to climb stairs or engage in competitive sports while in school While such a regime tends to reduce the incidence of cardiac failure by reducing the "cardiac load," it also tends to make the child very much aware of the fact that he is "different" from his normal classmates In some instances, this results in severe psychic trauma In other instances, it offers the child an excuse for assuming a tyrannical attitude toward the parents, especially if the latter are inclined to be oversolicitous The author has observed both types of reaction in children who have been "conditioned" by being placed in "cardiac" classes in school Suffice it to state that such an undesirable state of affairs can be prevented by subjecting children to operation prior to their entry into school

The author is of the opinion that all children, regardless of whether or not they present symptoms referable to ductal patency, should be subjected to operation The latter should preferably be performed before entry into school Unless the ductus is of unusually large caliber, such patients rarely present symptoms of circulatory insufficiency Furthermore, the incidence of subacute bacterial endarteritis is very low in such young individuals On the other hand, retardation of normal growth and physical development is not uncommon Operation in children of preschool age usually is quite simple and attended by insignificant morbidity and mortality in the hands of qualified surgeons In brief, the author considers it to be a highly desirable operation of "election."

Once the child enters school and is placed in a "cardiac" class, he becomes aware of the fact that he is different from his classmates As he grows older and tends to become physically more

REVASCULARIZATION OF THE HEART

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(From Western Reserve University and the University Hospitals, Cleveland, Ohio)

THIS work is based on approximately five thousand experimental operations carried out on the heart This work was begun in 1932 and with the exception of three war years has continued to the present time

In the ten-year period before the war three facts were brought out by experimental study One of these was the demonstration of a "trigger mechanism" in the heart If a portion of myocardium is made anoxic by ligation of the small coronary arteries supplying this area, it will be found that the anoxic area can destroy the coordinated heart beat and replace it by ventricular fibrillation Such relatively "dry areas" in the heart are responsible for most of the sudden deaths that occur in coronary artery disease A small amount of red blood delivered to one of these areas is important because it might prevent discharge of the trigger, fibrillation of the ventricles, and death

One purpose in this experimental work was to discover ways in which additional blood could be brought to the myocardium. The amount of blood need not be large, a relatively small amount would be beneficial How to get a supply of red blood was the problem Two methods were evolved One consisted of grafting adjacent tissues upon the surface of the heart with the expectation that arteries would grow across from graft to heart Every available structure was grafted upon the heart We obtained some nice specimens in which blood vessels of graft and blood vessels of heart were connected by anastomotic channels These communications did not always develop In a small percentage of experiments they could be demonstrated, in the remainder they could not

The second method of improving blood supply to the heart was the production of cross-channels between coronary arteries Coronary arteries are essentially end arteries They could be connected by the production of inflammation on the surface of the heart

These two methods were shown to be beneficial The test of benefit that we applied was ligation of descending ramus of left coronary artery at its origin in one step In the control group mortality was 70 per cent In the group that had these methods of revascularization applied to the heart the mortality was 38 per cent The destruction of heart muscle in the animals that survived ligation of the artery was less in the operated group than in the normal control group

Thirty-seven patients with severe coronary artery disease were operated upon using these methods It appeared that the results in these patients were beneficial

That briefly was the result of ten years of work The next development was to put red blood into the coronary sinus My associates and I have been developing this for the past three and one-half years I will give the results briefly The first problem concerned the technical job of putting red blood in the coronary sinus This was accomplished first by using the common carotid artery in dogs and later by placing a free graft of vein between aorta and coronary sinus (Fig 1)

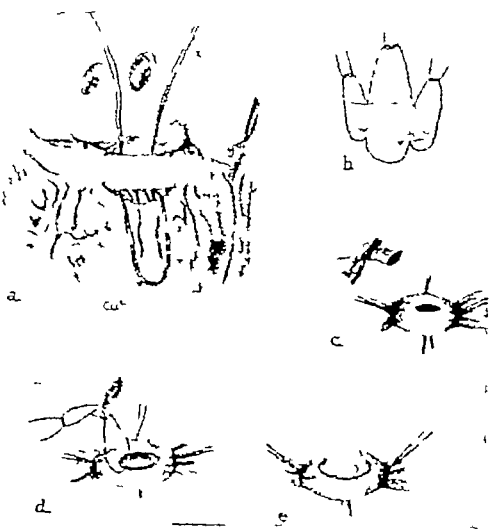


FIG 1 Anastomosis of left common carotid artery to coronary sinus in the dog (*a*) and (*b*) show method for isolation of segment of sinus so that it can be opened without hemorrhage The sinus is partially dissected free A carrier with two silk sutures is passed beneath the sinus at two points as indicated One piece of silk is cut A proximal and a distal ligature and a mattress suture are thereby provided. These are tied as in (*c*), and the sinus is opened. Four cardinal everting mattress sutures are placed between sinus and artery as shown in (*d*) The anastomosis is completed by a continuous everting suture (*e*) Trauma to sinus is minimal to prevent thrombosis [1]

The A Walter Suter Lectureship

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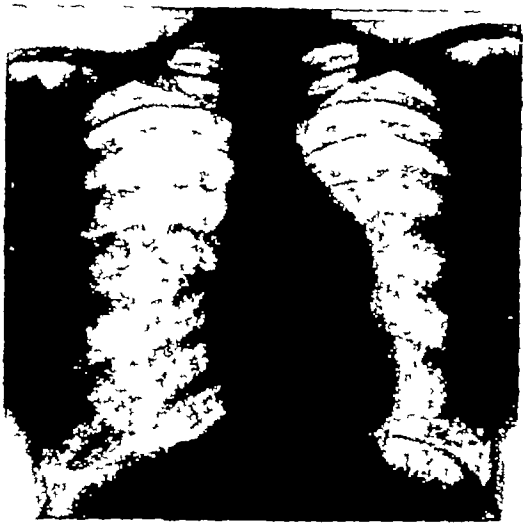


FIG 2 Film of chest one year after operation Note marked reduction in size of heart and persistence of prominence of pulmonary artery segment and bilateral pulmonary vascular congestion

left pleural cavity was entered through the third intercostal space after dividing the third and fourth costal cartilages The ductus, which was isolated without difficulty, was found to measure 1 cm in length and 2 cm in diameter The pulmonary artery was markedly dilated, measuring approximately 5 cm. in diameter The aorta was of normal caliber The ductus was doubly ligated with heavy silk After the latter had been accomplished, the blood pressure rose from 120/50 to 140/90, the continuous coarse thrill which could be readily palpated in the pulmonary artery disappeared The thoracic wound was closed in layers after aspirating the air in the pleura with a catheter

The postoperative course was uneventful, the wound healing by primary union On regaining consciousness, the patient volunteered the information that the "buzzing noise" which she had always noted in her chest had disappeared She was discharged from the hospital on the seventh postoperative day with the wound firmly healed At that time, the blood pressure was 116/88, and the patient was in excellent general physical condition She has been kept under observation since then (a period of one year) and has remained in excellent health She now is entirely free of symptoms and, for the first time in her life, indulges in any desired type of physical activity On physical examination, a very faint short systolic murmur is audible over the third left intercostal space at the previous site of the continuous "machinery" murmur An x-ray film of the chest, taken on May 2, 1949, revealed marked reduction in the size of the heart (Fig 2) The pulmonary artery segment remains prominent, however, and bilateral pulmonary vascular congestion is still noted. (These findings are in keeping with those which we have noted on many occasions among adults) At the present writing the patient is four months pregnant and feels very well

Comment

The foregoing case presents many features which the author has observed in other cases of patent ductus arteriosus among adults, notably the occurrence of subacute bacterial endarteritis and circulatory insufficiency The patient's small stature may be attributed to the presence of the patent ductus At operation, the ductus was found to be of large caliber and, had it not been for the fact that the patient had voluntarily restricted her physical activity throughout her life, cardiac failure would almost certainly have appeared at a much earlier age However, despite the fact that she led a sedentary life, circulatory insufficiency eventually did occur as the result of continued cardiac strain Fortunately, when subacute Streptococcus viridans endarteritis developed, the infection could be brought under control readily with penicillin therapy However, it should be emphasized that there are not a few organisms which are insensitive to all of the antibiotics which presently are available This fact constitutes a particularly forceful argument in favor of operation in all cases of patent ductus before infection develops, in the author's experience, operation has served to protect the patient against the development or recurrence of infection

Summary and Conclusions

Surgical treatment of patent ductus arteriosus is definitive inasmuch as it corrects the existing anatomic abnormality

The complications of the condition are failure of normal growth and physical development, circulatory insufficiency, and subacute bacterial endarteritis

All of the foregoing complications can be prevented or corrected by operation

In the hands of experienced surgeons, the morbidity and mortality of operation is negligible

Operation is recommended in all cases of patent ductus arteriosus, regardless of whether or not the patient presents symptoms

The optimum time at which operation should be performed is before a child enters school (usually between the ages of three and five)

All adults suffering from patent ductus arteriosus should be subjected to operation without delay because of the almost inevitable development of circulatory insufficiency if unoperated and the high incidence of subacute bacterial endarteritis

63 EAST 79TH STREET

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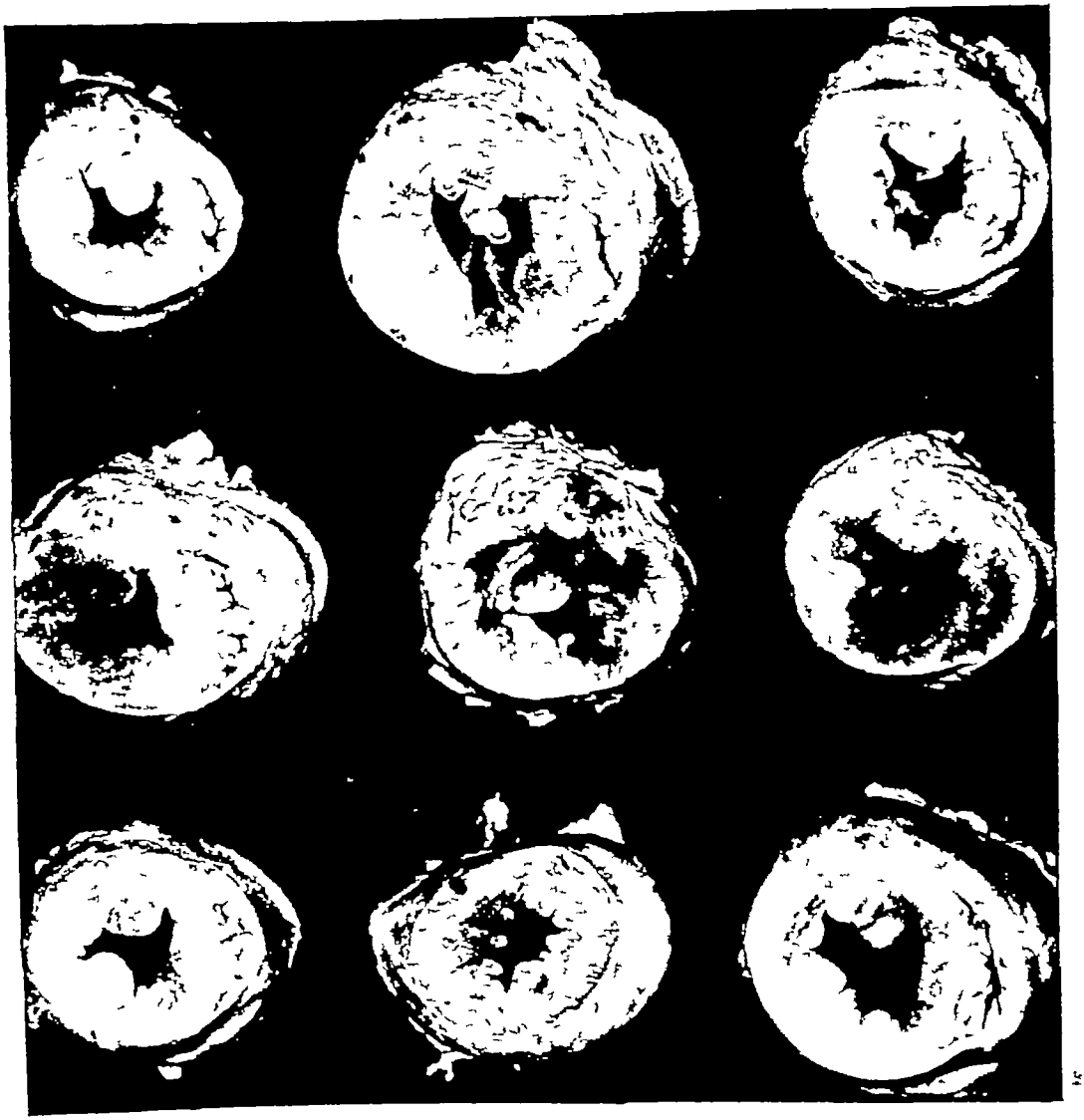


FIG 4. Infarcts in group with anastomosis between artery and coronary sinus The descending ramus of the left coronary artery was ligated in a group of ten dogs. There were no immediate deaths after this ligation In four specimens there was no infarct In the other specimens destruction was minimal and appeared in scattered areas In no specimen was extensive destruction of myocardium found as occurred in each of the control group [2]

problem is application to patients in such a way that the graft will remain patent and the myocardium will be able to take the increased load of blood Both of these problems are being solved

2065 ADELBERT ROAD

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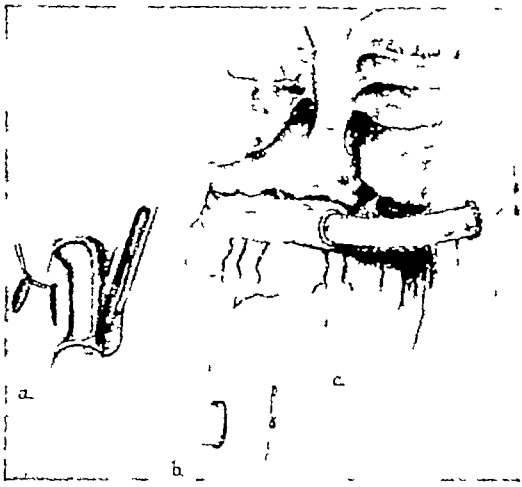


FIG 2 *Free graft of vein between aorta and coronary sinus of the dog* The aorta is dissected free for a distance of about 3 cm. Two intercostal arteries are cut The special clamp is placed on aorta as in (*a*) allowing some blood to pass the clamp The aorta is opened by incision about 5 mm in length An everting mattress suture is placed between graft and aorta at each end of this incision Anastomosis is completed by a continuous everting suture as in (*b*), (*c*) shows the complete operation [1]

This operation was done successfully Red blood was directed into the coronary vein and into the myocardium All the technical problems have not yet been completely overcome, but we have recently achieved almost routine success in experimental animals I need scarcely refer to the technical problems and difficulties of this development It seems to me that nowhere in the history of surgery has a technical development required so much experiment

The next subject concerns test of benefit after you get red blood in the sinus How much good does this do? Here is the most important consideration of our work When we tied off the descending ramus of the left coronary artery at its origin in one step, we obtained an important difference in mortality in dogs with arterial blood in the sinus as compared to normal dogs. In dogs with a new artery in the heart there were no immediate deaths after ligation of the test artery, there was one death at the end of eight days, one at the end of thirteen days, these dogs almost got by, eight lived In normal control dogs only three out of ten lived The amount of destruction of myocardium was definitely less than in the control group Any normal heart that survives ligation of the test artery has a large infarct In the grafted hearts there was no infarct in half the specimens, and in no specimen was the infarct as large as in control specimens (Figs 2 and 3) Expressed in other words, we found that, after arterial blood was delivered to the coronary sinus, it was possible to ligate a major coronary artery with little or no mortality and with little or no destruction of heart muscle It may be difficult at this time to appreciate the significance of this observation

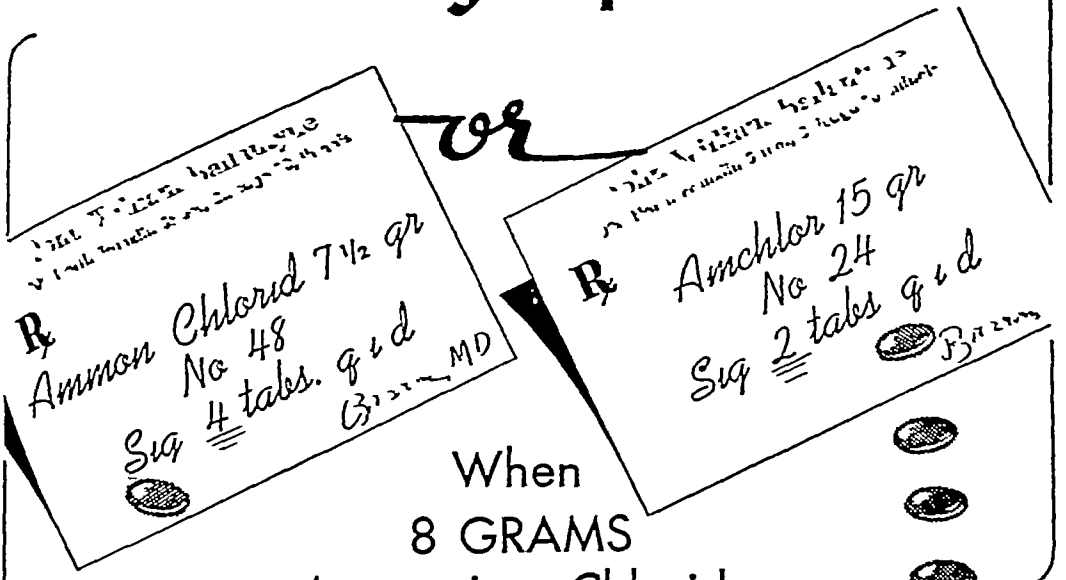
The next problem is to apply this development to human patients So far we have not made significant progress As of May 1, 1949, we have operated on only five patients Two are living I feel that within the immediate future our problems will be straightened out so that we can go ahead with patients

Finally, I should like to express myself on one point I am not worried or concerned about the beneficial result of the operation Our experiments have answered that problem before we get the answer on patients, and I am convinced that the operation will be highly beneficial Our



FIG 3 Infarcts in the control group The descending ramus of the left coronary artery was ligated in a group of ten dogs. Only three animals survived this ligation and each of these specimens showed a large infarct [2] Compare with Fig 4

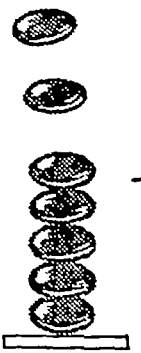
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NECROLOGY

Elias William Abramowitz, M D , sixty-three, died June 13 at his home in New York City after a long illness Born in Jassy, Rumania, he was brought to New York when a child and received his medical degree from University and Bellevue Medical College in 1907 After interning at Mount Sinai Hospital and serving as assistant house surgeon at the New York Lying-In Hospital, Dr Abramowitz began general practice in New York City

In 1911 Dr Abramowitz began the study of dermatology at Mount Sinai, and in 1914 joined the staff at Vanderbilt Clinic, Presbyterian Hospital, where he was attending dermatologist when he left in 1926 Since 1927 he had been associated with the New York Post-Graduate Medical School, where he was clinical professor of dermatology and syphilology

During World War I Dr Abramowitz was a member of the Council of National Defense and an instructor for an intensive course in dermatology given at Columbia University under Army and Navy auspices He also worked in the venereal disease clinic of the City Health Department under Federal supervision During World War II, he was a selective service dermatologist at Gouverneur Hospital

Dr Abramowitz was director of the dermatology and syphilology staff at Gouverneur Hospital, attending dermatologist and syphilologist for the skin and cancer unit of the Post-Graduate outpatient department, and chief of the dermatology and syphilology staffs at Jewish Memorial, Maimonides, and Liberty Hospitals

A Diplomate of the American Board of Dermatology and Syphilology, Dr Abramowitz was a member of the American Academy of Dermatology and Syphilology, the New York Academy of Medicine, the Manhattan Dermatological Society, the Brooklyn Dermatological Society, the New York State and County Medical Societies, and the American Medical Association

Franklin William Barrows, M D , who practiced in New York State before his retirement several years ago, died on May 25 at his home in Dumont, New Jersey He was eighty-six Dr Barrows was graduated from the University of Buffalo School of Medicine in 1893 and practiced in Buffalo until 1918, when he joined the New York State Department of Education In 1929 he moved to New Rochelle, where he was school medical adviser until 1934, when he retired. Dr Barrows was a member of the Medical Society of the State of New York and the American Medical Association

Robert Lander Bartlett, M D , seventy-four, former superintendent of the Oneida County Hospital, died on May 25 in Warm Springs, Virginia, where he had lived since his retirement in June, 1947 Dr Bartlett was graduated from the Tufts Medical School, Boston, Massachusetts, in 1898, and from the University and Bellevue Medical College in 1901

Following his internship at the Riverside Hospital, New York City, Dr Bartlett joined the Army Medical Corps and served at Chickamauga, Anniston, Alabama, and in Cuba. Following his postgraduate studies he went to the Philippines, where he was medical inspector with the Insular Board of Health. Dr Bartlett later served in Panama, under the direction of Colonel Gorgas, and for two years was in charge of Mira Flores Hospital. He supervised the sanitation program in the Republic of Panama to prevent the introduction of disease into the Canal Zone and was then transferred to the Ancon Hospital

Dr Bartlett next went to Brazil to take charge of the medical and hospital work of an English corporation engaged in improving the harbor of Para on the Amazon River After two years there, he went to Germany for further study and then returned to open a practice in New York City In 1913 he assumed the position as superintendent of the Oneida County Hospital in Rome, which he held for thirty-four years until his retirement

Dr Bartlett was a member of the Oneida County and New York State Medical Societies and the American Medical Association

Albert Jay Colton, M D , of Buffalo, died on June 19 at the age of eighty-five He received his medical degree in 1890 from the University of Niagara Medical Department Dr Colton was the inventor of the Colton system, a card-index designed to simplify physicians' bookkeeping and case-history recording He had been a practicing physician in Buffalo for thirty-three years until his retirement eight years ago He was a member of the Buffalo Academy of Medicine, the Erie County and New York State Medical Societies, and the American Medical Association

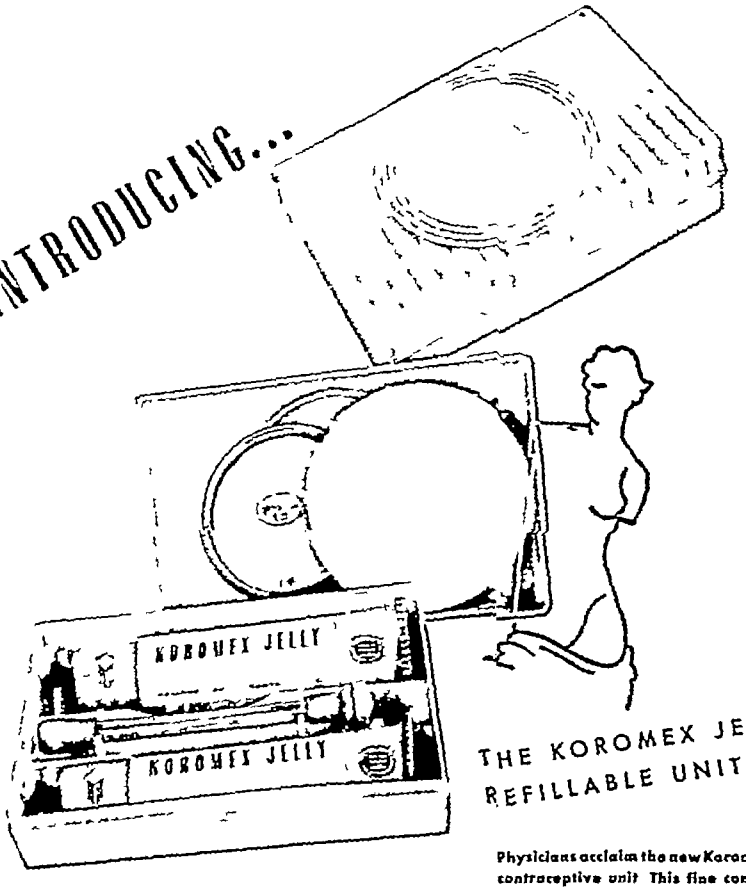
Avac Cutujian, M D , eighty-eight, died on May 16 in Frederick, Maryland, where he had lived since his retirement three years ago from his New York City practice A native of Marash, Turkey, Dr Cutujian received his medical degree from the Long Island College Hospital in 1893 He practiced in New York City for more than fifty years, until his retirement

Alexander Goldman, M.D , founder and first president of the Bronx Hospital, died on June 15 at his home in the Bronx at the age of seventy-seven Dr Goldman, who was born in Moscow, Russia, came to the United States in 1890 after being graduated from the Sorbonne University in Paris He received his medical degree from the College of Physicians and Surgeons, Columbia University, in 1906, and the following year was associated with the late Alexander Lambert, M D , in establishing the first gastroenterologic clinic at the Vanderbilt Clinic of the Presbyterian Hospital

Dr Goldman was a leader in the movement to build the Bronx Hospital He served as its president for ten years and was head of its medical board until five years ago, when he was elected president emeritus of the board Dr Goldman was chief in endocrinology and consultant in internal medicine at the Bronx Hospital, and consultant in gastroenterology at the Morrisania Hospital. He was a member of the Bronx County and New York State

[Continued on page 1732]

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[Continued from page 1730]

Medical Societies and the American Medical Association

Albert Michael Healey, M D, of the Bronx, died on June 12 at the age of sixty-seven A graduate of the University and Bellevue Medical College in 1907, Dr Healey had practiced for forty years in the Inwood district of Manhattan until he retired five years ago He was a member of the Bronx County and New York State Medical Societies and the American Medical Association

Charles Johnstone Imperatori, M D, seventy-one, formerly of New York City, died on June 15 at his home in Essex Dr Imperatori, who represented the seventh generation of physicians in his family, received his medical degree from the University and Bellevue Medical College in 1899 and served for a year with the United States Public Health Service in the Panama Canal Zone Following this, he opened his ear, nose, and throat practice in New York City

Dr Imperatori was professor of laryngology at the New York Post-Graduate Medical School and Hospital from 1922 to 1928, visiting surgeon at Bellevue Hospital from 1917 to 1921 and from 1930 to 1935, and clinical professor of otolaryngology at New York University Medical School from 1932 to 1935 He was consulting bronchoscopist at the Manhattan Eye, Ear and Throat Hospital and consulting laryngologist at the Harlem, Flower and Fifth Avenue, and Correction Hospitals, in New York City, and the Nyack Hospital

During World War I, Dr Imperatori served in France as a lieutenant colonel in command of the 309th Medical Regiment of the 84th Division, A.E.F For his services France decorated him with the Medaille D'Honneur Des Epidemies In World War II he was a member of the Division of Medical Sciences of the National Research Council

Former president of the American Laryngological Association, the American Bronchoscopic Society, and the New York Laryngological Society, Dr Imperatori was a Fellow of the American College of Surgeons and the American Academy of Ophthalmology and Otolaryngology, a Diplomate of the American Board of Otolaryngology, and a member of the New York Academy of Medicine, the New York County and State Medical Societies, and the American Medical Association

Anna W Locke-Henry, M D, New York City, died on February 14 at the age of eighty-one Dr Locke-Henry received her medical degree from the University of Michigan Medical School in 1897

Charles Jacob Mark, M D, sixty-eight, of New York City, died on March 23 A graduate of the Long Island College Hospital in 1906, Dr Mark was assistant attending dermatologist at Gouverneur Hospital in New York City

Walton Martin, M D, New York City, died on June 18 of a cerebral hemorrhage at his summer home in Cornwall, Connecticut He was eighty years old A graduate of the College of Physicians and Surgeons, Columbia University, in 1892, Dr Martin interned at Roosevelt Hospital and then became a member of the staff of St Luke's Hospital, on which he remained until his death

During World War I, Dr Martin installed the Ambulance B section at the American Hospital in Neuilly, France He was the author of many books on surgery, and did the revision of Green's *Pathology* Dr Martin attended the late President Theodore Roosevelt during his last illness in 1918 and also treated the late Dr Nicholas Murray Butler, former president of Columbia University

A Fellow of the American College of Surgeons, Dr Martin was a member of the American Society of Thoracic Surgery, the American Surgical Association, the New York Academy of Medicine, the New York Surgical Society, the New York County and State Medical Societies, and the American Medical Association

Earl H Mayne, M D, eighty-two, of Brooklyn, died on June 9 in Newport, Vermont, of a heart attack He received his medical degree in 1893 from the Bellevue Hospital Medical College and began his practice in Brooklyn, where he continued for more than fifty years, until 1948 Dr Mayne was one of the founders of the Bay Ridge Hospital and served as president of its board of directors He was a former president of the Bay Ridge Medical Society and a Fellow of the American College of Surgeons In 1944 he founded the Mayne Educational Fund to aid worthy young people acquire educational advantages Dr Mayne was a member of the Kings County and New York State Medical Societies and the American Medical Association

Morris C Smitkoff, M D, of Brooklyn, died on June 1 at the age of forty-four Dr Smitkoff was graduated from the Cornell University Medical College in 1931 and was assistant attending physician in arthritis at the Jewish Hospital of Brooklyn He was a member of the New York Rheumatism Association, the American Rheumatism Association, the Kings County and New York State Medical Societies, and the American Medical Association

Max Wolper, M.D, a New York City physician for fifty-nine years, died on June 22 at his home after an illness of two months He was eighty-seven A native of Berlin, Germany, Dr Wolper was graduated magna cum laude from the University of Berlin in 1888, and came to this country and set up his office in East Broadway, New York City, the following year

Dr Wolper was well known many years ago as a horse-and-buggy doctor on the Lower East Side During his career he delivered approximately 10,000 babies, and received permission from the police to equip his buggy with a fire gong to facilitate getting through crowded streets in response to hurry calls He retired from practice a year ago, when his health began to fail

Dr Wolper was a member of the New York County and State Medical Societies and the American Medical Association

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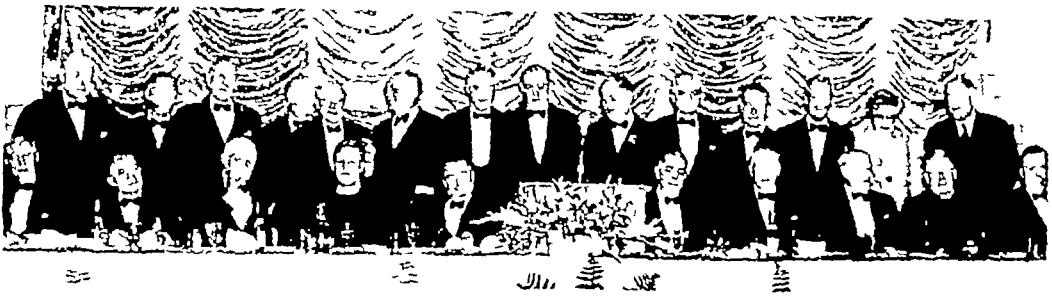
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MEDICAL NEWS



TESTIMONIAL DINNER TO JOHN J MASTERSON, M D

Dr John J Masterson, of Brooklyn, new president of the Medical Society of the State of New York, was guest of honor at a testimonial dinner held April 28 at the Hotel St George in Brooklyn Guests at the dinner included officers of local, county, and State medical societies, hospitals, and other medical groups Shown above are

Seated, left to right—Dr Nathan B Van Etten, past-president, Medical Society of the State of New York and American Medical Association, Dr Irwin E Siris, president, Kings County Medical Society, Dr Abraham Koplowitz, past-president, Kings County Medical Society, Reverend John G Furniss, S J, director, Jesuit Seminary and Mission Bureau, Dr Edward R. Cunniffe, past-president, Medical Society of the State of New York, and chairman, *Judicial Council, American Medical Association*, Dr Charles A Gordon, *past-president*, Kings County Medical Society, Dr John J Masterson, president, Medical Society of the State of New York, Dr Maurice J Dattelbaum, past-president, Kings County Medical Society, Reverend C O Pedersen, rector, Norwegian Lutheran Deaconnesses' Home and Hospital, and Dr Leo F Simpson, immediate past-president, Medical Society of the State of New York.

Standing, left to right Dr Charles S Prest, secretary, Brooklyn Tuberculosis and Health Association, Dr Arthur A. Fischl, president, Queens County Medical Society, Dr J Stanley Kenney, councilor, Medical Society of the State of New York, Dr Renato J Azzari, president, Bronx County Medical Society, Dr George W Kosmak, managing editor, NEW YORK STATE JOURNAL OF MEDICINE, Dr James R Reuling, treasurer, Medical Society of the State of New York, Dr Walter P Anderton, secretary, Medical Society of the State of New York, *Honorable John J Bennett*, deputy mayor, City of New York, Dr Charles F McCarty, director, Kings County Medical Society, Dr Jean A. Curran, president, Long Island College of Medicine, Mr Charles E Larsen, president, Norwegian Lutheran Deaconesses' Home and Hospital, Dr Albert F R Andresen, speaker, Medical Society of the State of New York, Mrs. Charles E Scofield, president, Woman's Auxiliary, Kings County Medical Society, and Dr Dan Mellen trustee, Medical Society of the State of New York

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WOMEN DOCTORS FARING WELL

Though still a medical minority, U S women physicians today occupy an important niche in the profession Here are a few facts on their status garnered from a nation-wide survey published in the June issue of *Medical Economics*

Women practitioners net an average annual income of $7,929 (male doctors average $11,036) They devote nine hours a day to their medical practice (one hour less than men), spend an equivalent of 41 days a year in postgraduate study (eight days more than men) They allow 25 days a year for vacations (to men's 16 days) Only 12 per cent are in full specialty practice (as against 31 per cent of men)



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SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting immediately following adjournment of the House of Delegates on May 4, 1949, the Council considered the following matters, taking action as indicated

Secretary's Report

Remission of Assessments —Remission of annual assessments was voted on account of service with the armed forces for one member for each of the following years 1942, 1943, 1944, 1945, 1946, 1947, and 1948 Annual and war memorial assessments for three members were remitted on account of illness Two assessments were refunded due to illness

Nomination to Associate Fellowship in the American Medical Association was approved for Dr Charles Rich

Treasurer's Report was accepted

Executive Officer s Report

Dr Hannon stated that he was about to make arrangements for the meetings of executive committees of the District Branches, and that he would appreciate suggestions regarding matters that should be considered at these meetings

New Business

Dr Anderton read, for information, a telegram sent by order of the House of Delegates to Mrs John L O'Brien, expressing sympathy at the death of her husband, Dr John L O'Brien

The President *was voted* power to appoint the Convention Committee and the Arrangements Committee for the 1950 Annual Meeting *It was also voted* that the Convention Committee should select the place and date for the meeting

The President requested suggestions of names of members for committees

There was discussion about submitting desired changes in the new Workmen's Compensation Fee Schedule to Miss Donlon before its final printing

The President requested chairmen of committees to send their reports to the Secretary sufficiently in advance so as to have them distributed with the agenda of Council meetings

---

CURARE PREPARATION RELIEVES SYMPTOMS OF ARTHRITIS

A preparation of a South American arrow poison, curare, is bringing relief to persons suffering from the painful chronic disease, rheumatoid spondylitis, a form of arthritis that affects the spine

Use of the preparation, *d*-tubocurarine suspended in oil and wax, is reported by Bernard M Narcross, M D , and Harold M Robins, M.D , of the University of Buffalo Medical School, Buffalo, in the May 28 issue of the *Journal of the American Medical Association*

In six cases in which the doctors administered the preparation, after other treatment usually prescribed for the disease had failed to produce improvement, the patients were relieved of pain, their muscles were relaxed, deformity of the spine was corrected, and they were able to take more exercise

---

SPECIALISTS' EARNINGS TOP G.P 'S BY 50 PER CENT

Medicine's specialists earn half again as much as the average net income of general practitioners, reports *Medical Economics*, national business magazine for physicians

"No specialty in 1947 averaged less than $19,000 gross or about $12,000 net," according to figures from a nation-wide survey published in its May issue ' Thus the lowest-paying specialty netted its average practitioner about $2,500 more than the average net of G P 's"

Average net incomes of independent doctors in the seven top-paying specialties in 1947 are reported as follows roentgenology and radiology, $20,319, obstetrics and gynecology, $17,320, eye, ear, nose, and throat, $16,068, surgery, $16,011, psychiatry, $14,774, neuropsychiatry, $14,371, and ophthalmology, $14,099

"The disparity between the incomes of specialists and G.P 's," the magazine concludes, "is increased by the fact that the G.P spends 22 per cent more time practicing and sees almost 23 per cent more patients than the full specialist does."

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CORRESPONDENCE

Histamine Iontophoresis

To the Editor

Histamine iontophoresis as a new therapeutic method was first introduced by Deutsch in 1931 He used it successfully in the treatment of such conditions as muscular rheumatism and fibrositis, assuming that local and regional hyperemia is responsible for the therapeutic results In 1934 I described a method of craniocerebral iontophoresis applied to the forehead and nape of the neck Here, too, results were encouraging Moderate and severe attacks of migraine as well as hypertensive and arteriosclerotic headaches respond immediately to the treatment At the same time there is a marked fall of systolic blood pressure in hypertensive patients These observations encouraged further therapeutic attempts in various organic diseases of the brain, such as multiple sclerosis, Parkinsonism, chorea, and other encephalitic disorders Two of three multiple sclerosis cases responded with immediate relief In one patient the existing nystagmus and ataxia subsided within an hour following treatment In another case, blurred vision due to retrobulbar neuritis cleared up for a period of days I recorded these results as striking indications of the efficacy of the method but emphasized their transient nature

Comparing the technic of craniocerebral ionization with the method described by Abramson (New York State Journal of Medicine, May 15, 1949, page 1151), it is interesting to note that the concentration of histamine solution used in my method (1 5,000) is only a fraction of the one applied by Abramson I have also found that the described cerebral (or cerebrovascular) effects were much more marked when the treatment was applied to other parts of the body This suggests that, besides the systemic reactions due to the introduction of histamine into skin and general circulation, a local and regional effect as assumed by Deutsch must be involved This is also borne out by the fact that, on using the so-called urticariogenic effect of dionine (diethylhydromorphine) instead of histamine under the positive pole, identical clinical and vasodepressive reactions can be observed

These observations show that whatever be the ultimate verdict regarding the therapeutic potentialities of histamine ionization, further clarification of its modus operandi is desirable

Jan Ehrenwald, M D
66 East 78th Street
New York City

June 1, 1949

Reply by Dr Abramson

To the Editor

I was very glad to have the privilege of seeing Dr Ehrenwald's letter and should like to take up its contents point by point

I was fully aware that Deutsch used histamine iontophoresis for the treatment of arthritis However, whether he used it successfully or not is another matter We all know that electrophoresis or iontophoresis is used for many diseases However, the therapeutic claims by those who have used the electrophoretic method far outweigh the scientific evidence which has been accumulated to explain the modus operandi Dr Ehrenwald points out that in 1934 he used a method of craniocerebral iontophoresis applied to the forehead and nape of the neck It is my impression, after listening to those who use this technic, that they believe that the electric current and the drug actually permeates all the tissues between the electrodes to produce its therapeutic effect I do not know if Dr Ehrenwald believes this or not, but this much is certain, that the basic law of electricity, namely Ohm's law, is followed, and I should be very much surprised if the paths of the current and therefore the movement of the drug carries out the desire of the physician to apply the drug directly to the brain or nervous system itself Indeed, if the electrode is applied to the skin, the skin blood vessels will absorb the fluid on the nape of the neck or the forehead or anywhere else on the body It is quite true that there will be a difference in the rate of absorption of the drug with different areas of vascularity and lymphatic supply, but misconceptions of this type alluded to by Dr Ehrenwald have been described in detail in my two books, *Electrokinetic Phenomena* (Reinhold Publishing Company, New York City) and *Electrophoresis of Proteins*, with Moyer and Gorin (Reinhold Publishing Company, New York City, 1942)

Apparently, Dr Ehrenwald found that in two of three multiple sclerosis cases immediate relief was obtained As my rather extensive work and that of Jonez on the subject discloses, such spectacular results are not always to be encountered The psychologic effects of the therapy, especially if an electrode is applied to the skull, are too obvious to be mentioned further

The cerebral or cerebrovascular effects obtained by Dr Ehrenwald must be ascribed to absorption through the skin from the electrode and not on the cerebrum itself Any effect on the cerebrum must be of a minor order or magnitude Finally, I quite agree with Dr Ehrenwald that the modus operandi of the effect of histamine is desirable, but I do not feel that the modus operandi should be determined by therapeutic claims which are apt to dispute the elementary laws of electricity and to neglect the basic principles of psychodynamics in therapy

Harold A Abramson, M D
133 East 58th Street
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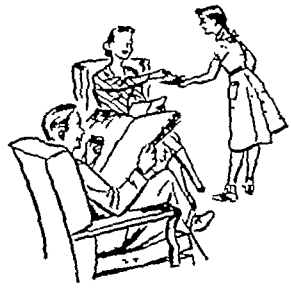
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January, 1947	20%
August, 1947	35%
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June, 1949	up to 35%

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Behind Perandren Price Reductions

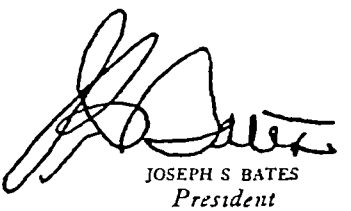
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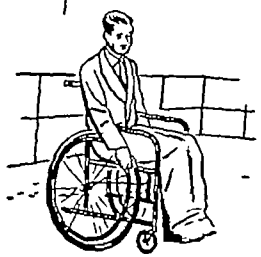
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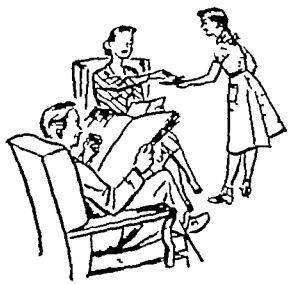
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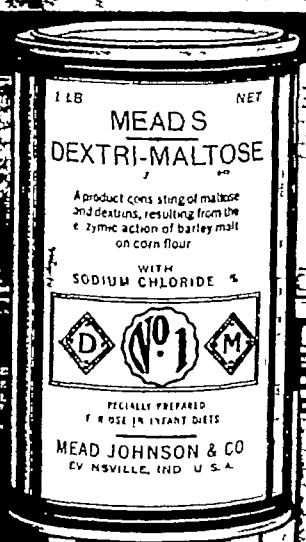
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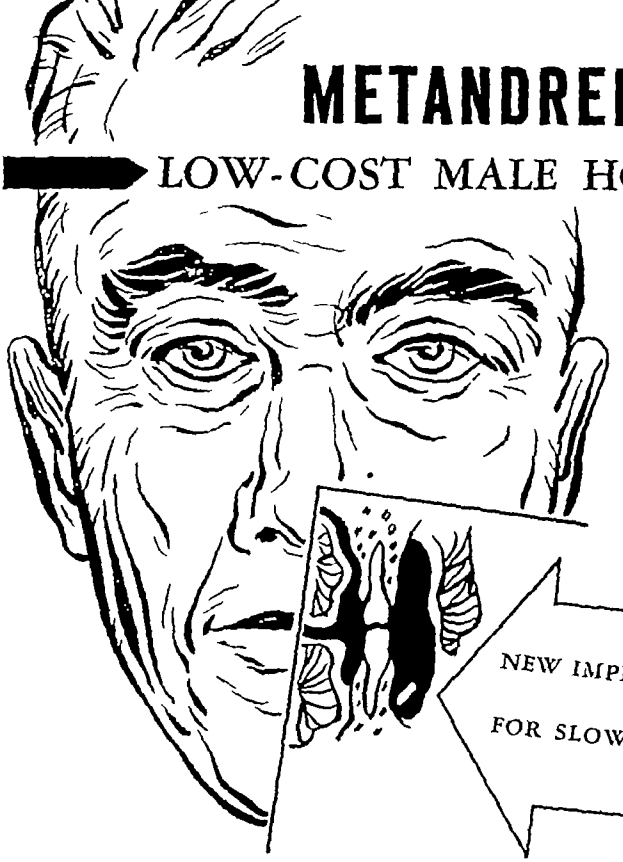
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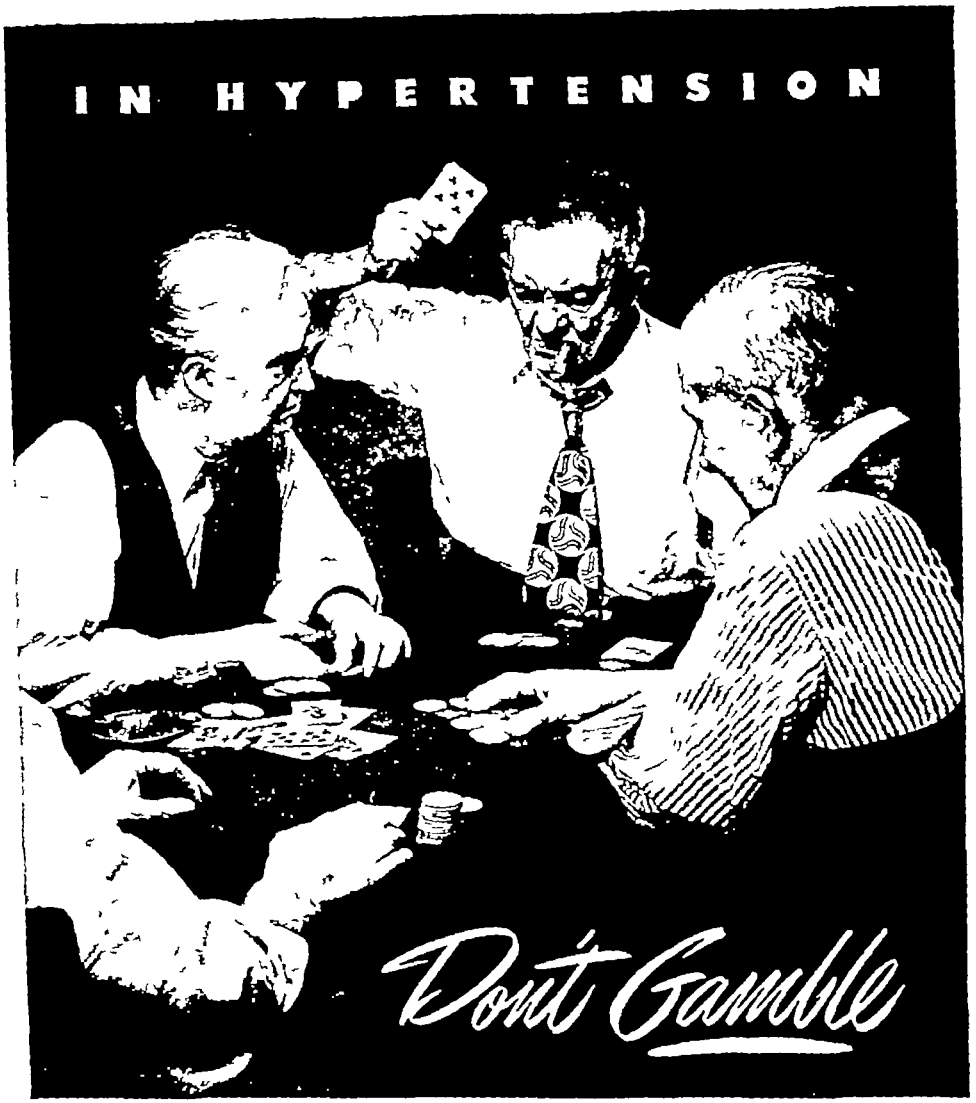
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1 Lisser H Calif & West Med 64 1-7 1946
2 Tyler, E T JAMA 139 9 Feb 1949

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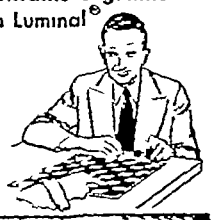


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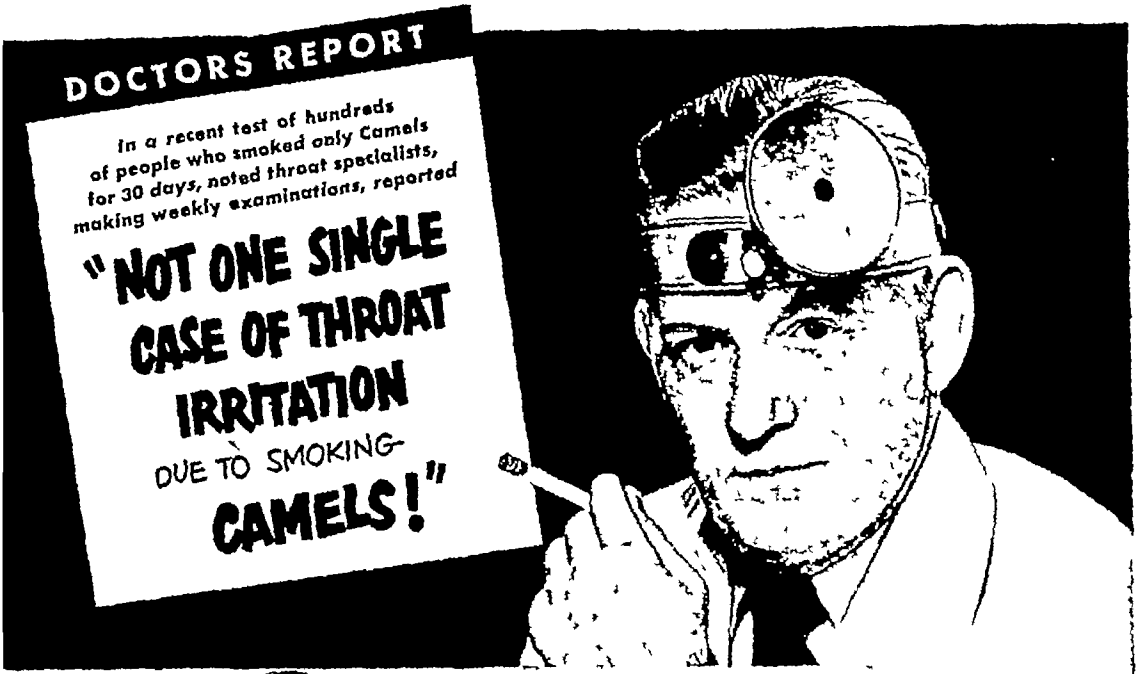
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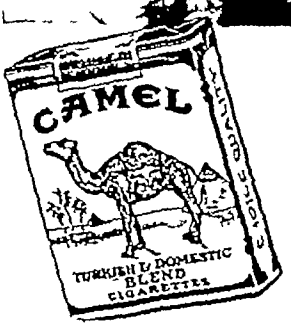


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VOLUME 49 AUGUST 1, 1949 NUMBER 15

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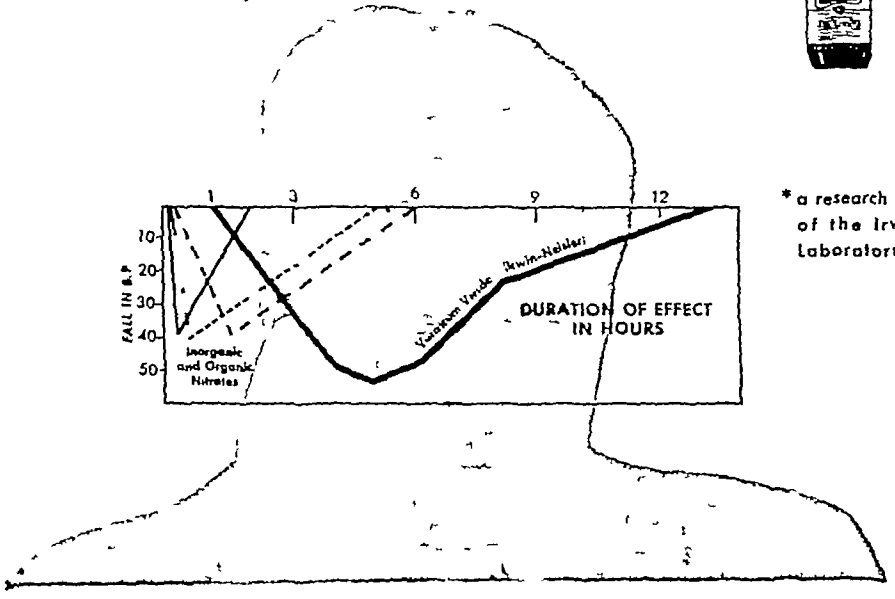
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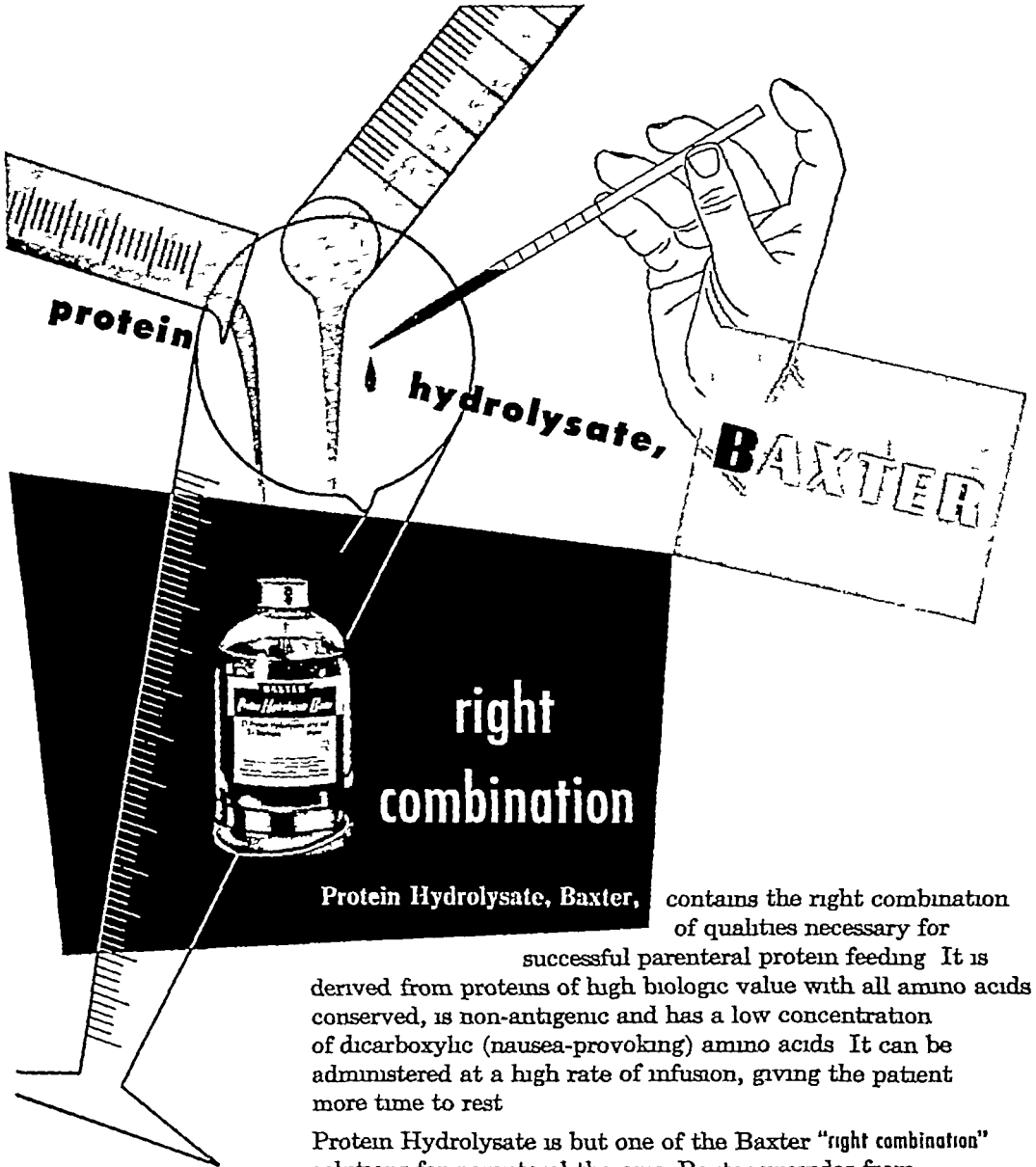
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1 Dieckmann W J and Priddle, H D Am J Obstet. & Gynec. *57* 541 (March) 1949
2. Chesley, R. F and Annitto J E. Bull Margaret Hague Maternity Hosp *1* 68 (Sept) 1948
3 Healy J C Journal Lancet *66* 218-221 (July) 1946
4 Talso P J J Ins Med *4* 31-34 (Dec.-Jan -Feb) 1948-1949

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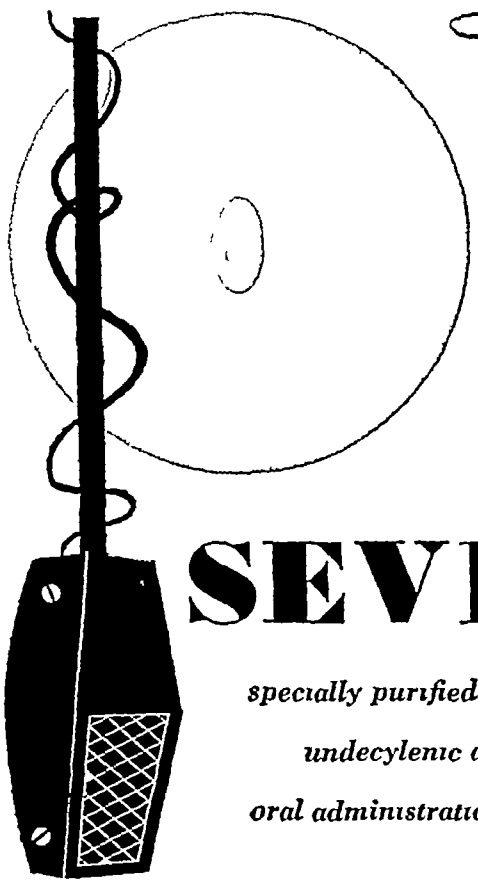
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2. Perlman, H H : J.A.M.A. 139 444, 1949

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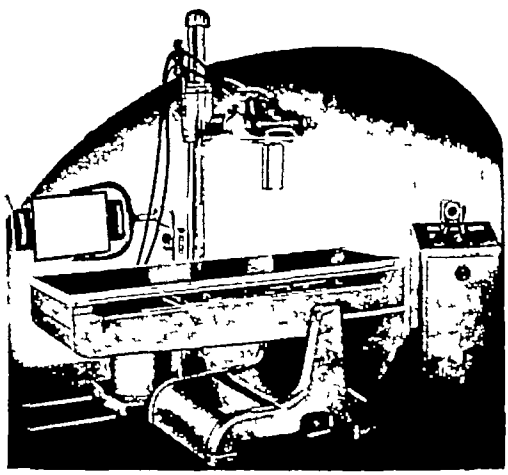
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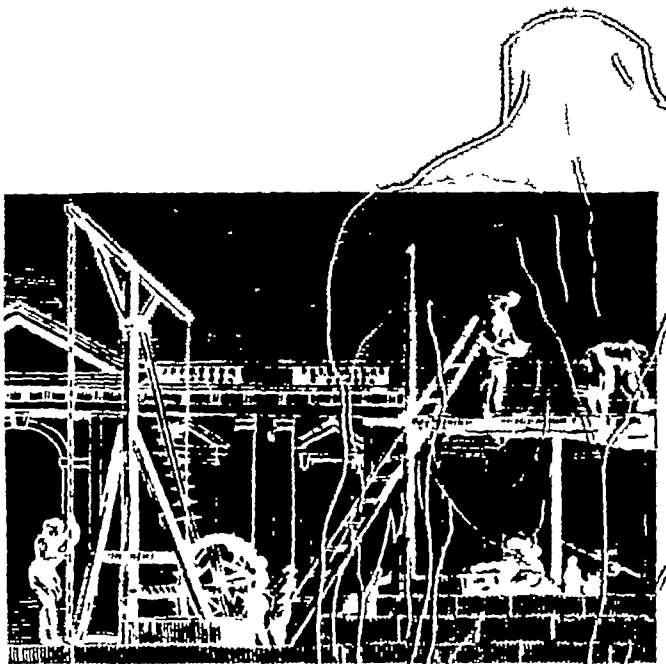


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Miscellaneous

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when headache is a problem
Edrisal is the logical answer

" ... in the vast majority of patients psychologic factors are present which tend to increase the frequency and severity of headaches "

Friedman, A P , and Brenner, C N Y State J Med 45 1969

Edrisal is remarkably effective in headache, even in difficult psychogenic cases For Edrisal is the only analgesic preparation that contains 'Benzedrine' Sulfate—the rational anti-depressant Edrisal, therefore, not only relieves the pain itself but also—by lifting your patient's mood—relieves his concern with pain Best results are usually obtained with a dosage of *two* Edrisal Tablets—repeated every three hours, if necessary

Smith, Kline & French Laboratories, Philadelphia

Edrisal its dual action relieves pain, lifts mood

Each Edrisal tablet contains Benzedrine* Sulfate (racemic amphetamine sulfate, S K F), 2 5 mg , acetylsalicylic acid, 2 5 gr , and phenacetin, 2 5 gr*
Available on prescription only

*'Benzedrine' and 'Edrisal' T M Reg U S Pat Off



RESMICON™

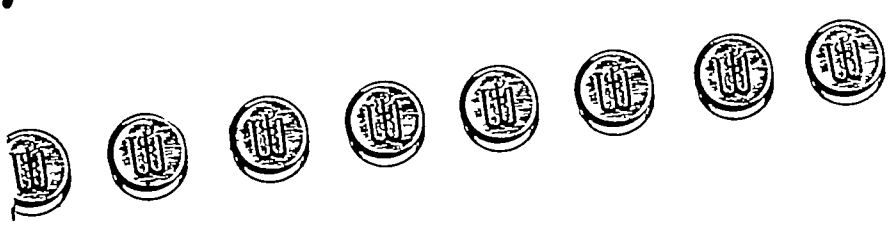
acid-adsorbent demulcent

without side effects

BECAUSE Resmicon combines anion exchange polyamine resin with natural gastric mucin This combination means double-barrelled action for relief of pain and promotion of healing in peptic ulcer.

BECAUSE Resmicon's polyamine resin inactivates hydrochloric acid by physical adsorption, not by chemical "neutralizing" or "buffering" This physical action induces no alkalosis, no acid rebound, no depletion of body electrolytes, no formation of renal calculi, no toxic effects, no irritation, and no uncomfortable side effects such as constipation, diarrhea, eructation, or flatulence

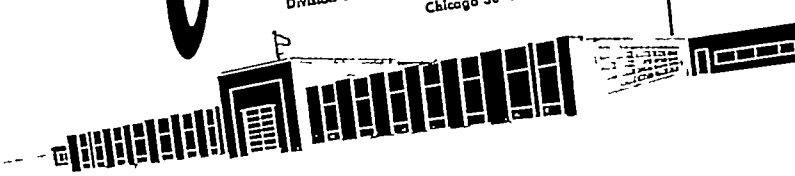
for effective peptic ulcer therapy



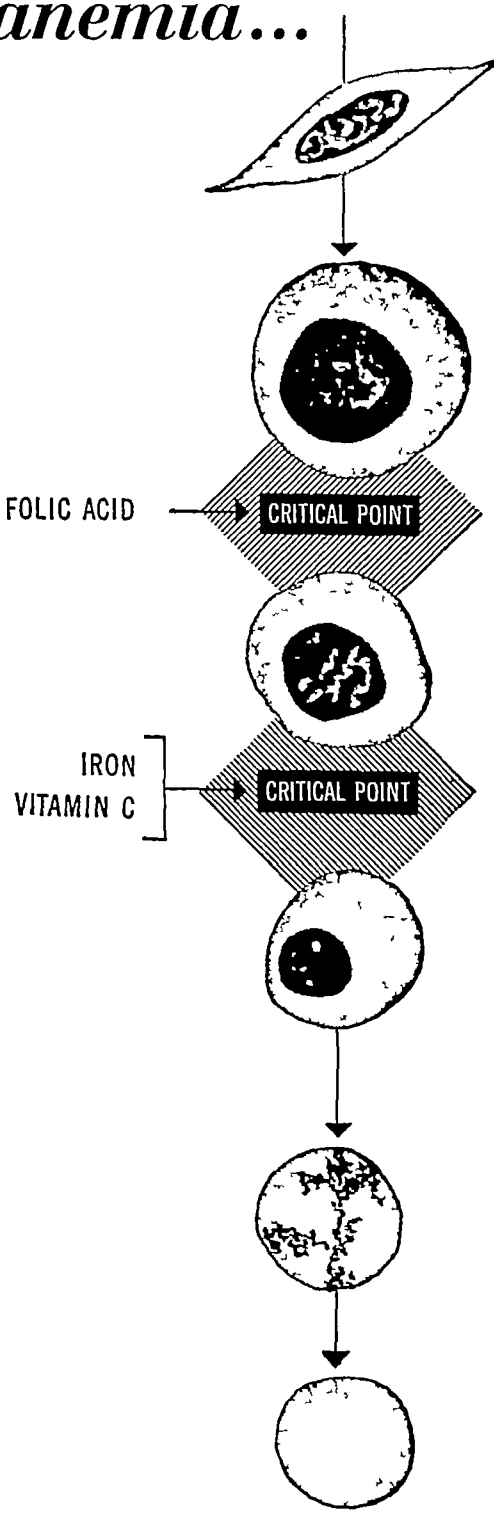
BECAUSE Resmicon's mucin provides a dense, tenacious coating for the eroded area, as well as for the whole gastric mucosa This mucinous film—highly resistant to penetration by HCl and pepsin—protects the ulcerated tissue and fosters healing

RESMICON tablets gastric mucin, 170 mg anion exchange polyamine resin, 500 mg , supplied in bottles of 84 tablets

Whittier
LABORATORIES
Division Nutrition Research Laboratories
Chicago 30 Illinois



In anemia...



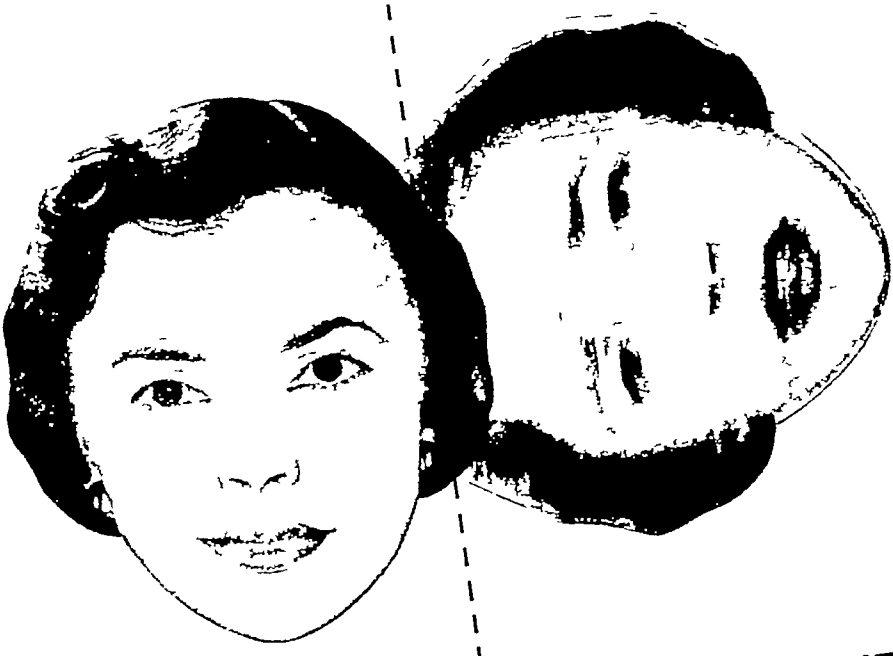
According to Haden, there are two "critical points in red cell maturation—the megaloblast and normoblast stages *

Each Liafon Capsule contains Desiccated liver 0 5 Gm , Ferrous sulfate exsiccated 2 gr , Ascorbic acid 50 mg , Folic acid 1 67 mg
1 or 2 capsules t i d Bottles of 100 Capsules

LIAFON

*LIAFON IS A TRADEMARK OF E R SQUIBB & SONS
PRINCIPLES OF HEMATOLOGY ED 3 1946 P 31

SQUIBB *Manufacturing Chemists to the Medical Profession since 1858*



AT LAST! EFFECTIVE RELIEF IN BRONCHIAL ASTHMA

——"inconspicuous side effects"[1]

Prompt, complete relief in bronchial asthma and associated conditions yet "causes very little central nervous stimulation and produces little or no pressor action."[1]

85%–90% effective relief in over 1400 patients during an exacting 8-year clinical study

Increased vital capacity better feeling of well being essentially free from undesirable side actions

Its name is NETHAPHYL®

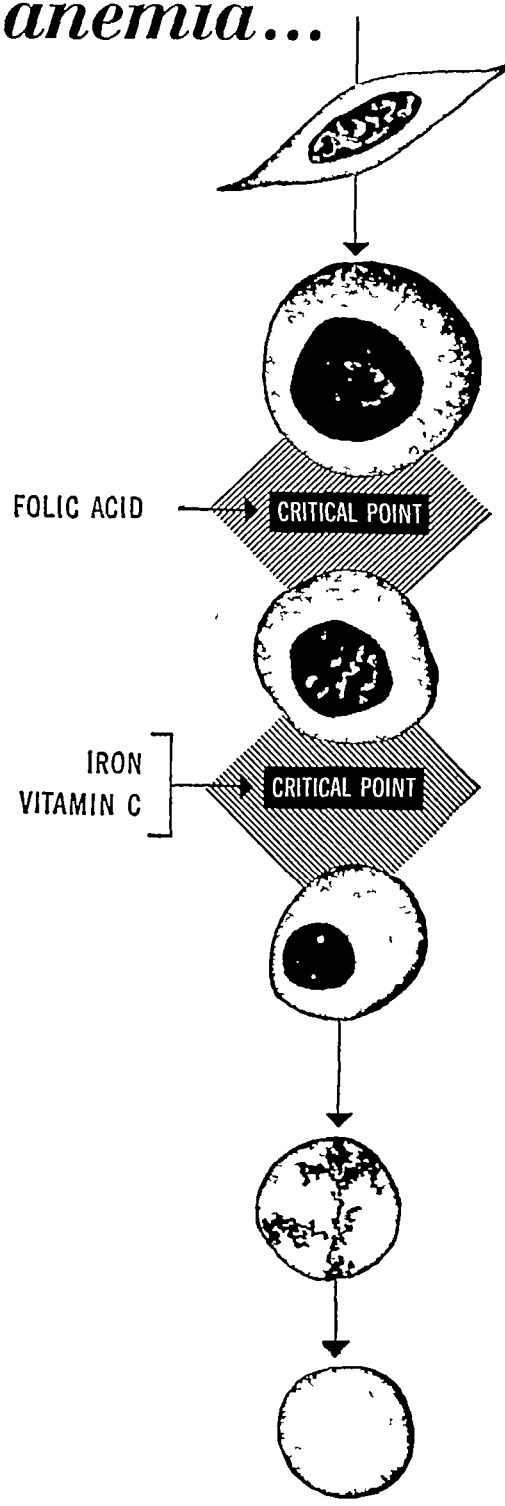
Each capsule contains Nethamine® Hydrochloride 50 mg., Butaphyllamine® 0.12 Gm., and phenobarbital 15 mg. Also available in half-strength.

For liquid dosage Syrup Nethaprin® Pleasant tasting Nethaphyl is effective relief, enhanced by Decapryn's long-lasting antihistaminic action in seasonal and other allergies *Each 5cc contains Nethamine® 25 mg., Theophylline (U.S.P.) 50 mg., Decapryn® Succinate 6 mg*

MERRELL 1828 CINCINNATI U.S.A.

1—Hansel, F. K. Ann. Allergy 5:397 1947

In anemia...



According to Haden there are two "critical points" in red cell maturation—the megaloblast and normoblast stages *

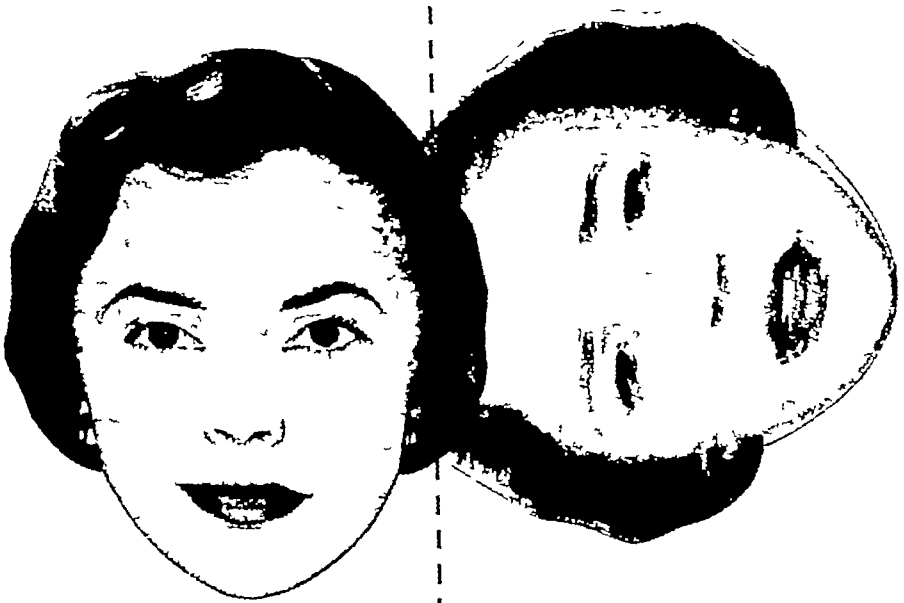
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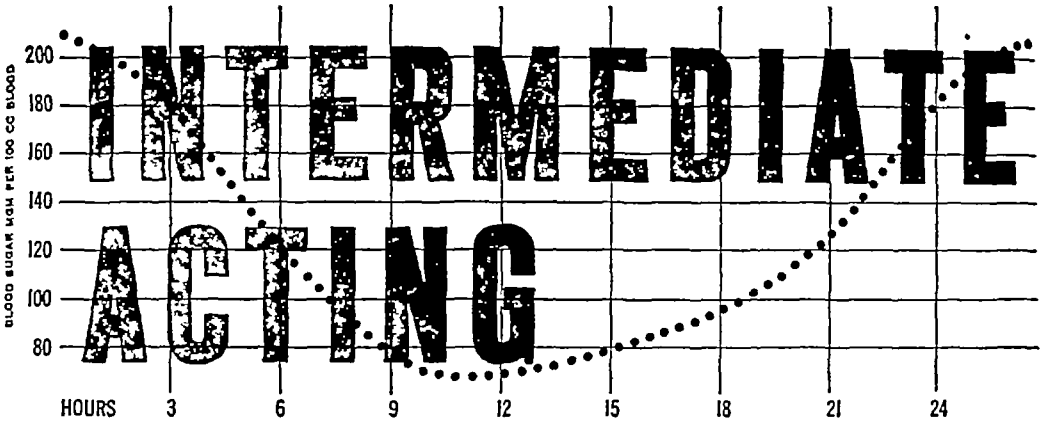
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Also available in half-strength.

MERRELL
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1–Hansel, F. K.: Ann. Allergy 5 397 1947



INTERMEDIATE ACTING

GLOBIN INSULIN

'B.W.&CO.'

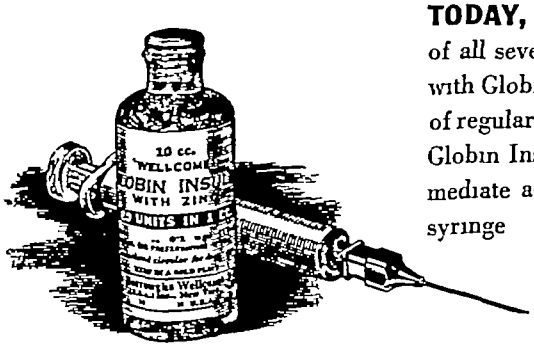
was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin"[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B W & Co'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B W & Co'—or with a 2 1 mixture of regular insulin protamine zinc insulin *Ready to use* Globin Insulin 'B W & Co' provides the desired intermediate action without preliminary mixing in vial or syringe

In 10 cc vials U-40 and U-80

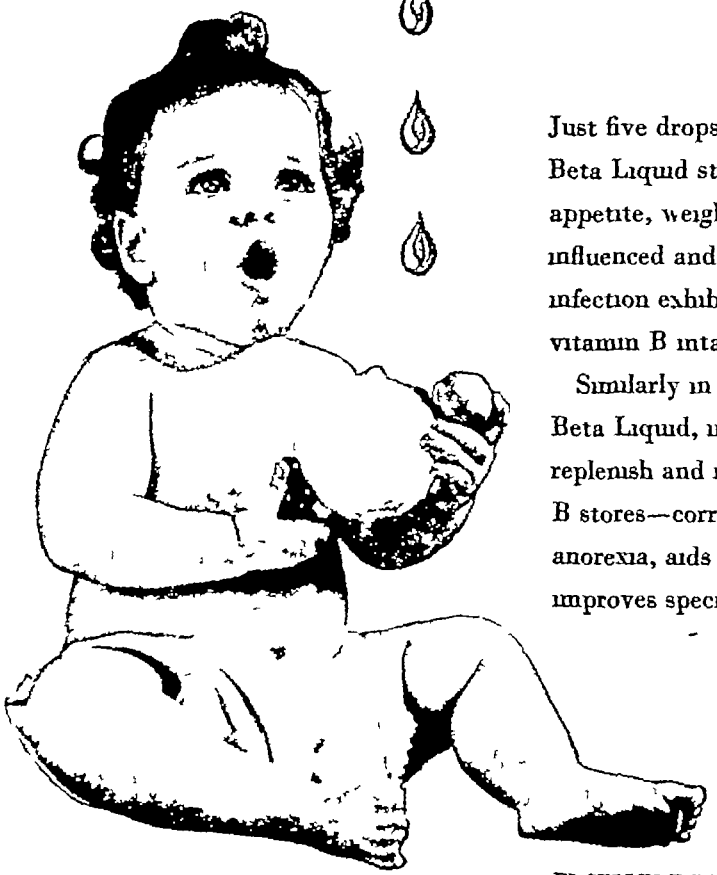


'B.W & CO'—*a mark to remember*

1 Rohr J H. and Colwell A.R : Arch Int Med 82:54 1948.
2. Ibid Proc. Am. Diabetes Assn. 8 37 1948

BURROUGHS WELLCOME & CO (U.S.A.) INC. Tuckahoe 7 New York

infant anorexia rapidly disappears



Just five drops daily of White's Multi-Beta Liquid stimulates the infant appetite, weight increase is favorably influenced and greater resistance to infection exhibited—the early infant's vitamin B intake is at a safe range

Similarly in the adult, White's Multi-Beta Liquid, in teaspoon dosage, helps replenish and maintain adequate vitamin B stores—corrects deficiency-induced anorexia, aids in patient recovery, improves special or restricted dietaries

EXCELLENT PRESCRIPTION INGREDIENT
Palatable, non alcoholic and stable, White's Multi Beta Liquid is ideally suited to prescription use Compatible with such ingredients as (1) Tincture Nux Vomica, in equal parts, (2) Elixir Phenobarbital, 1 to 4 parts, (3) White's Mol-Iron Liquid, 1 to 8 parts

White's **MULTI-BETA LIQUID**

multi-purpose **B complex** source

WHITE LABORATORIES, INC., *Pharmaceutical Manufacturers*, NEWARK 7, N J





The fluid sulfadiazine that tastes better! acts faster!

Children—and adults who balk at bulky sulfadiazine tablets—take ESKADIAZINE willingly because of its delicious taste and pleasant consistency

Instead of ordinary sulfadiazine, ESKADIAZINE contains S-K-F's *microcrystalline* sulfadiazine in a stabilized suspension. Result: desired serum levels may be attained *3 to 5 times more rapidly* with ESKADIAZINE than with sulfadiazine in tablet form. Each 5 cc. (one teaspoonful) contains 0.5 Gm. (7.7 gr.) of sulfadiazine—the dosage equivalent of the standard sulfadiazine tablet

Smith, Kline & French Laboratories, Philadelphia

Eskadiazine

the outstandingly palatable fluid sulfadiazine

description

A smooth, uniform, antipruritic ointment composed of cooling, soothing **Calamine**, 8%, analgesic **Benzocaine**, 3%, and antiseptic **Hexylated Metacresol**, 0 05%, in a fragrant, water washable, greaseless base Supplied in 1½-oz and 4-oz tubes

indications

Symptomatic relief of sunburn, itching dermatitis due to poison ivy, poison oak, or other allergens, diaper rash pruritus, hives, insect bites and other minor skin irritations

action

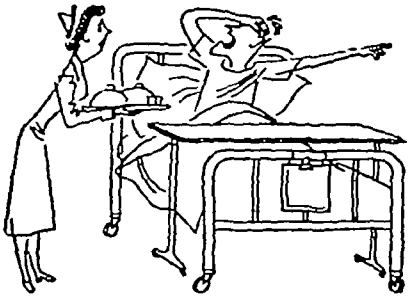
Caligesic ointment is analgesic, astringent, and protective, cooling and soothing Promptly suppresses itching, helps contr vesiculation and exfoliation

Sharp & Dohme Philadelphia 1, Pa.

SHARP & DOHME

caligesic®

Analgesic Calamine Ointment (Greaseless)



Soft Diet trying your patients' patience?



— try palatable Swift's Strained Meats

Tempting, natural source of complete protein



6 varieties

The things some patients on soft, smooth diets have to eat! It's no wonder appetites lag

To perk up patients' interest in food, many doctors now prescribe specially prepared Swift's Strained Meats when soft foods are indicated in a high-protein, low-residue diet They help two ways *One,* Swift's Strained Meats taste so good Few patients can turn down real meat goodness *Two,* an excellent source of B vitamins, Swift's Strained Meats help restore patients' natural appetite for all foods

Originally prepared for infant feeding, Swift's Strained Meats are soft, smooth (may easily be used in tube-feeding), slightly salted—cooked to retain all their delicious meat flavor Six kinds for variety beef, lamb, pork, veal, liver, heart Each one 100% meat, they provide an excellent, palatable source of complete, high-quality proteins and hemapoietic iron These meats make available *simultaneously* all known essential amino acids for optimum protein synthesis Convenient —Swift's Strained Meats are ready to heat and serve

The makers of Swift's Strained Meats invite you to send for your copy of "The Importance of Protein Foods in Health and Disease"—a physician's handbook of protein feeding, written by a doctor Send to

SWIFT & COMPANY

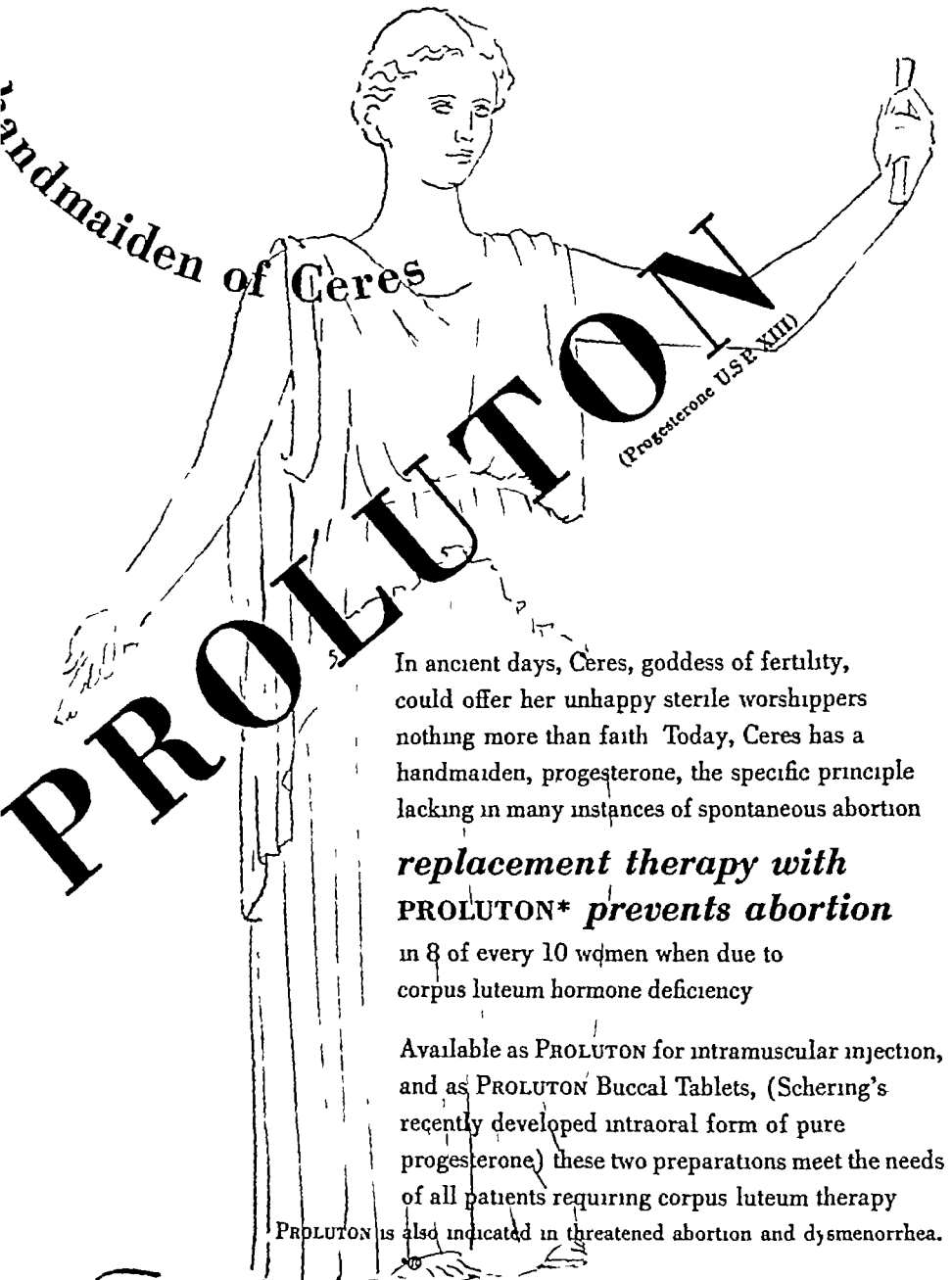
Chicago 9, Illinois

ACCEPTED Council on Foods and Nutrition

All nutritional statements in this advertisement are accepted by the Council on Foods and Nutrition of the American Medical Association.

For patients who can take foods of less fine consistency—Swift's Diced Meats offer tender morsels of nutritious meat with tempting flavors patients appreciate





Handmaiden of Ceres

PROLUTON

(Progesterone U.S.P. XIII)

In ancient days, Ceres, goddess of fertility, could offer her unhappy sterile worshippers nothing more than faith Today, Ceres has a handmaiden, progesterone, the specific principle lacking in many instances of spontaneous abortion

replacement therapy with
PROLUTON* ***prevents abortion***
in 8 of every 10 women when due to corpus luteum hormone deficiency

Available as PROLUTON for intramuscular injection, and as PROLUTON Buccal Tablets, (Schering's recently developed intraoral form of pure progesterone) these two preparations meet the needs of all patients requiring corpus luteum therapy

PROLUTON is also indicated in threatened abortion and dysmenorrhea.

Schering CORPORATION BLOOMFIELD, NEW JERSEY

PROLUTON

SCHERING



as welcome as spring

To the patient with musculoskeletal pain and discomfort, local application of Arthralgen,™ Arthralgesic Unguent, speedily brings beneficient relief. It creates a lasting sensation of deep, relaxing warmth as welcome as the comforting sun of Spring

ARTHRALGEN

Arthralgesic Unguent

counteracts circulatory difficulties, typical of rheumatic and allied disorders, through the action of its specially combined analgetic and vasodilator agents—thymol, menthol, methyl salicylate and methacholine chloride These beneficial ingredients achieve rapid penetration of the skin by virtue of Arthralgen s highly absorbable, washable ointment base

Arthralgen produces active hyperemia promptly and sustains the effect for several hours. The vasodilatation is *not* accompanied by wheals or itching There is no appreciable effect on blood pressure

Arthralgen is valuable in the treatment of arthral gias, myalgias and neuralgias—sprains, lumbago, synovitis, bursitis, neuritis and myositis In chronic arthritis, Arthralgen is an excellent topical adjunct to systemic therapy

Arthralgen Arthralgesic Unguent containing 0.25% methacholine chloride 1% thymol 10% menthol 15% methyl salicylate: available in one-ounce tubes and half pound jars.

Whittier LABORATORIES

DIVISION NUTRITION RESEARCH LABORATORIES
CHICAGO 30 ILLINOIS

FROM SECRETARY OF DEFENSE LOUIS JOHNSON—

AN URGENT APPEAL TO YOUNG DOCTORS!



Your personal help is needed to avert a serious threat to our national security!

By the end of July of this year we will have lost almost one-third of the physicians and dentists now serving with our Armed Forces Without an increased inflow of such personnel, the shortage will assume even more dangerous proportions by December of this year

These losses are due to normal expiration of terms of service The professional men who are leaving the Armed Forces during this critical period are doing so because they have fulfilled their duty-obligations and have earned the right to return to civilian practice

Without sufficient replacements for these losses, we cannot continue to provide adequate medical and dental care for the almost 1,700,000 service men and women who are the backbone of our nation's defense

Normal procurement channels will not provide sufficient replacements!

To alleviate this critical, impending shortage of professional manpower in the three services, I am urging all physicians and dentists who were trained under wartime A.S T P and V-12 programs under government auspices or who were deferred in order to complete their training at personal expense, *and who saw no active service*, to volunteer for a two-year tour of active duty, at once!

We have written personally to more than 10,000 of you in the past weeks urging such action The response to this appeal has not been encouraging, and our Armed Forces move rapidly toward a professional manpower crisis!

Many responses have been negative, but worse—a great number of doctors have not replied It is urgent that we hear from you immediately!

We feel certain that you recognize an obligation to your fellow men as well as to your profession in this matter We are confident that you will fulfill that obligation in the spirit of public service that is a tradition with the physician and dentist.

There is much to be said for a tour of duty with any of the Armed Forces You will work and train with leading men of your professions. You will have access to abundant clinical material, have the best medical and dental facilities in which to practice You will expand your whole concept of life through travel and practice in foreign lands In many ways, a tour of service will be invaluable to you in later professional life!

Volunteer now for active duty You are urged to contact the Office of Secretary of Defense by collect wire immediately, signifying your acceptance and date of availability Your services are badly needed. Will you offer them?

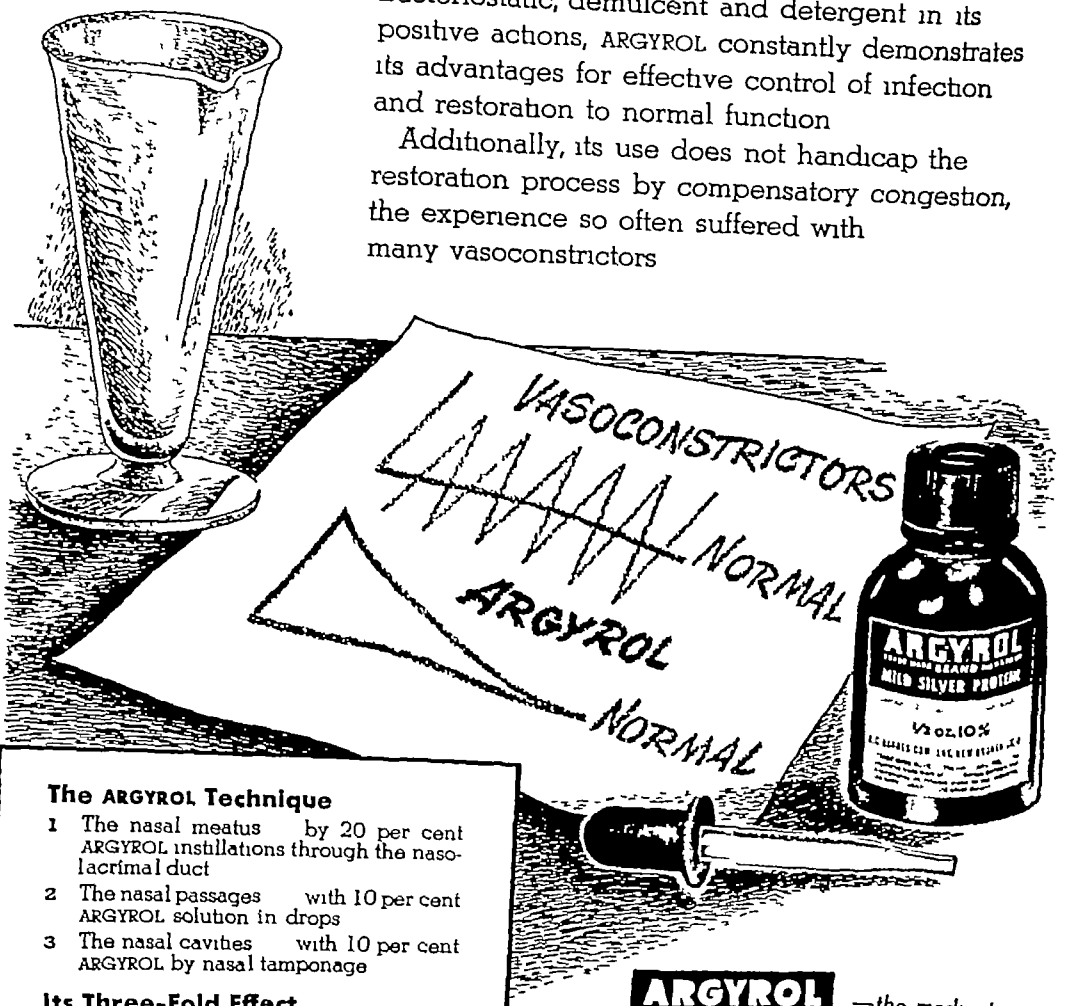
Louis Johnson

In Treating Para-nasal Infection **ARGYROL** Affords

multiple action without reaction

Bacteriostatic, demulcent and detergent in its positive actions, ARGYROL constantly demonstrates its advantages for effective control of infection and restoration to normal function

Additionally, its use does not handicap the restoration process by compensatory congestion, the experience so often suffered with many vasoconstrictors



The ARGYROL Technique

1 The nasal meatus by 20 per cent ARGYROL instillations through the naso-lacrimal duct
2 The nasal passages with 10 per cent ARGYROL solution in drops
3 The nasal cavities with 10 per cent ARGYROL by nasal tamponage

Its Three-Fold Effect

1 Decongests without irritation to the membrane and without ciliary injury
2. Definitely bacteriostatic yet non toxic to tissue
3 Stimulates secretion and cleanses thereby enhancing Nature s own first line of defense

ARGYROL —*the medication of choice in treating para-nasal infection*

SPECIFY THE ORIGINAL **ARGYROL** PACKAGE

Made only by the

A. C. BARNES COMPANY
NEW BRUNSWICK, N. J.

ARGYROL *is a registered trademark, the property of A C. Barnes Company*



Sleep That Makes the Darkness Brief

Physicians are well aware of the importance of a good night's rest When tired limbs and overbusy minds cause restlessness and insomnia, a bedtime dose of 'Seconal Sodium' (Sodium Propyl-methyl-carbinyl Allyl Barbiturate, Lilly) is indicated

'Seconal Sodium' exerts its hypnotic effect quickly, inviting forgetfulness and sleep Because of its brief duration of action, the patient awakes refreshed, well rested Specify 'Seconal Sodium' on orders and prescriptions Druggists have it in ¾-grain and 1½-grain pulvules, in ampoules, and in suppositories



Lilly

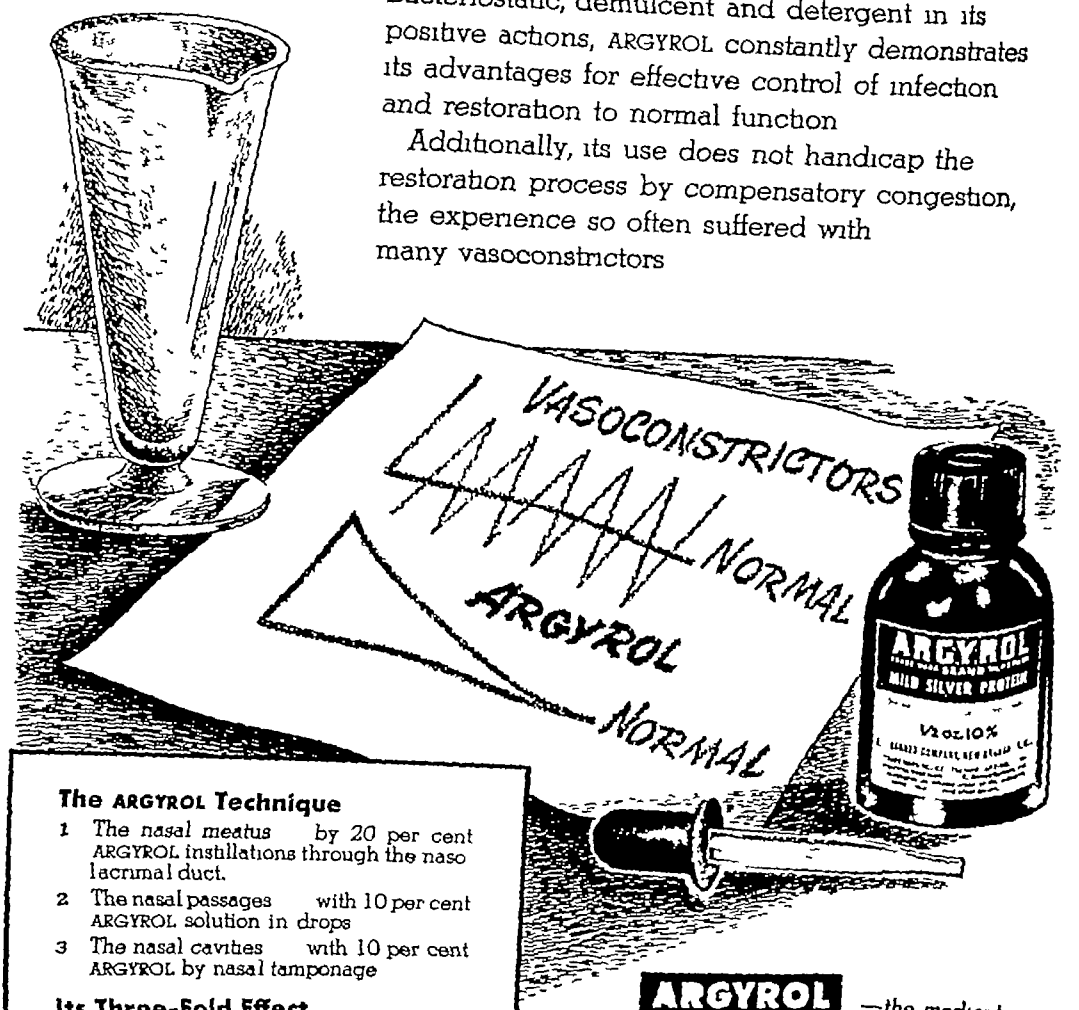
ELI LILLY AND COMPANY INDIANAPOLIS 6, INDIANA, U S A

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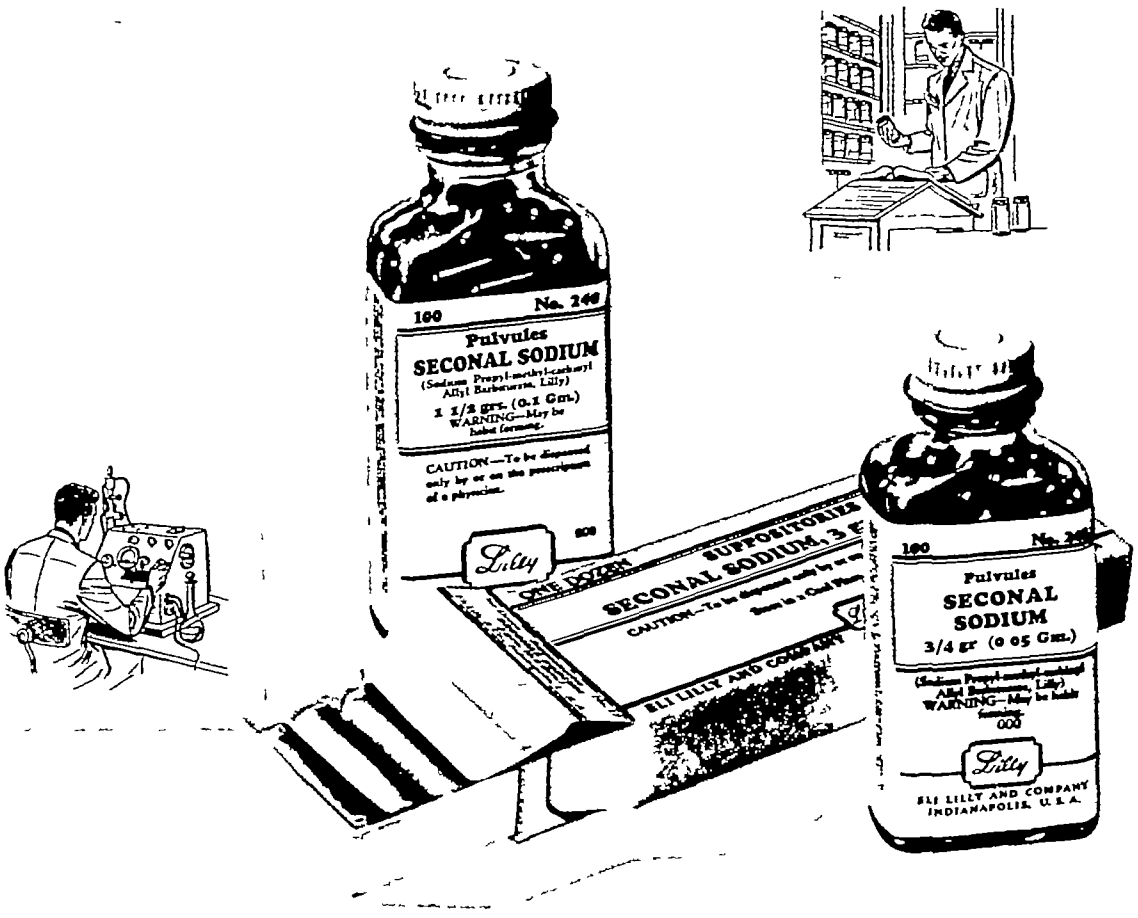
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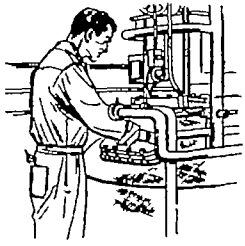
Druggists have it in ¾-grain and 1½-grain pulvules, in ampoules, and in suppositories



Lilly

ELI LILLY AND COMPANY, INDIANAPOLIS 6, INDIANA U S A





AN ORTHOPEDIST COUNTS HIS ALLIES



Co-operative teamwork is part and parcel of the American way In order to diagnose correctly obscure bone and joint disorders, the orthopedic surgeon needs the roentgenologist and often the pathologist and the bacteriologist The combin knowledge and experience of all these specialists result in better service for the patient

Co-operative effort is also the rule at the Lilly Research Laboratories Scores of qualified workers, representing all of the allied medical sciences, pool their skills to assist in the solution of medical problems Their findings, in turn, are made available to physicians in the form of improved techniques and better pharmaceutical and biological product Their aim is to contribute to the welfare of the patient by lacing safer, more effective medicinal agents in the ician's competent hands

NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 49 AUGUST 1, 1949 NUMBER 15

Editorials

Tenure of Hospital Staff Appointments

The House of Delegates of the Medical Society of the State of New York at the annual meeting this year considered the matter of tenure of hospital staff appointments It was voted that "an appropriate committee, working in conjunction with other interested groups initiate studies to define just and uniform standards for dealing with problems relative to tenure of hospital staff appointments, and other pertinent matters relative to staff appointments" Also "that proper and equitable hospital administration should include provisions in hospital bylaws to protect staff appointments of physicians from capricious or summary termination "[1]

The Planning Committee for Medical Policies initiated the recommendation in its annual report, and it may well be that such studies may lead to a clearer understanding by all parties at interest, especially if precedent cases adjudicated in the courts are thoroughly studied

A case in point is that of *Van Campen v Olean General Hospital*, in which the plaintiff physician who was dropped from the staff alleged "arbitrary and confiscatory action" on the part of the hospital He received notice that by action of the board of directors he was dropped from the visiting staff, with the privilege of treating his patients then in the hospital

Mr Justice Davis of the Court of Appeals, in reversing the lower court which found for the appellant physician, expressed the unanimous opinion of his colleagues in dismissing the complaint [2] In his discussion he brought out many points of interest to physicians

1 The plaintiff physician alleged that the defendant hospital was a "public corporation" This view was sustained by the lower court, but was not held by the Court of Appeals Said Mr Justice Davis

2 His (the plaintiff's) claim is that he has been deprived of the right to use in his business the property of another, the defendant

3 The learned trial court has found and the judgment declares that the defendant is a public corporation With due deference we cannot take

[1] Minutes of the House of Delegates 1949

[2] Opinion reported in 210 A.D 204 and affirmed by the Court of Appeals in 239 N Y 610

that view Public corporations are the instrumentalities of the State, founded and owned by it in the public interest, supported by public funds and governed by managers deriving their authority from the State

There are many public institutions in this State devoted to the care of afflicted and unfortunate people They may be conducted directly by the State or they might be made by statute corporate bodies, like school trustees of boards of education Hospitals may be established by certain municipalities These are public hospitals Corporations organized by permission of the Legislature undertake to perform similar duties They are supported mainly through voluntary gifts These are private corporations *That they are engaged in charitable work for the benefit of the public and thereby affected with a public interest does not make them public corporations The fact that they may receive a donation from the government to enable them to carry on their work, or funds from a city or county to care for sick and disabled indigent persons does not affect their character as private institutions*

Defendant is a nonstock corporation, its organization made possible by an act of the Legislature which determines the manner of electing its directors and provides a method of a new election Its affairs are in many respects regulated by statute Its incorporation was originally contingent upon the written approval of the State Board of Charities and of a justice of the Supreme Court of the district Its directors and officers may receive no pay except under certain circumstances It is subject to visitation, inspection, and supervision by the State Board of Charities

While such a corporation is exempt from liability for negligence to patients and is granted exemption from taxation, *these facts do not indicate that the corporation is public* Exemption from taxation is given by the Legislature to many corporations and individuals as a matter of public policy

We must then consider whether the plaintiff had any vested right to use the property of this private corporation for his own gain, and whether a court of equity has jurisdiction to intervene so far in the management of the hospital that it may give plaintiff redress for what he claims were arbitrary and capricious acts of the directors

It is unnecessary to recite the differences between plaintiff and those in active charge of the hospital The trial justice aptly described them as "petty" Whether these complaints were well founded or not it is unnecessary to consider That complaints of mismanagement and neglect will always be made in such institutions is inevitable There were counter-complaints that plaintiff did not comply with the rules and regulations adopted for the hospital management Evidently the directors eventually came to regard plaintiff as a disturber of the harmony of the institution The notification of his being dropped from the visiting staff followed

Inasmuch as the Reference Committee on the Report of the Planning Committee for Medical Policies suggested that "proper and equitable hospital administration should include provisions in hospital bylaws to protect staff appointments ," the following remarks of the learned Justice will be found of interest

Just what is meant by the "visiting staff" is not entirely clear Portions of the bylaws are printed in the record One states that "the medical staff shall be composed of resident practicing physicians and surgeons of Cattaraugus County" who are members of the hospital It does not say the staff shall include *all* such physicians and surgeons Another bylaw provides that *if the board of directors shall determine that the character, conduct, or acts of any member of the medical staff are such as to interfere with the orderly conduct of the hospital, the board may by resolution remove or suspend him*

Of especial significance to anyone who questions the powers of hospital governing boards is the following

There is no provision in the bylaws for a hearing prior to removal or suspension We think none is required The selection and retention of physicians to treat patients admitted to the hospital are matters of judgment and discipline The power to appoint usually implies the authority to remove In common experience instances are not unusual where some physician disagrees with hospital management When such disagreement becomes so pronounced as to interfere with orderly management and discipline, and when there is persistent violation and disobedience of necessary rules and regulations, *we think the directors may bring the inharmonious conditions to an end by summary action They are not required, in our judgment, to give notice and conduct a trial in every such case* Public-spirited citizens, usually having business of their own, who act as directors without pay, having many duties relative to finance and management, would no doubt find their time fully occupied if the duty of holding trials on all sorts of complaints was superadded If, in every detail of management involving the relation of the hospital with the physician and patient, they have no power of final decision but

must be guided and directed by orders and judgments of the court therein, *then their duties are little more than perfunctory*

The management of such corporations is given by law to the board of directors It is a power delegated by the Legislature The authority of the directors of membership corporations to deal with property is restricted Otherwise, their duties are similar to those of directors of other corporations and similar principles apply

Directors hold office charged with the duty to act for the corporation according to their best judgment, and they cannot be controlled in the reasonable exercise and performance of such duty They have wide discretion in determining policies, and its exercise in a given matter is not subject to review by the court unless there is clearly error in the performance of a legal duty Equity will not attempt to correct errors of judgment, for courts have nothing to do with the internal management of corporations in the absence of fraud or bad faith if kept within corporate powers

The law does not require a corporation like defendant to furnish its services and accommodations to every one who applies, whether patient or physician There can be no absolute right in individuals to claim the benefit of its privileges Such a thing would be impossible There must be discretion vested in the management to make selection from applicants with regard to accommodations available It may reject one who has some trivial ailment, and accept another whose needs are greater This is not illegal discrimination depriving a person of his rights, nor do we deem it such discrimination if from a large number of physicians it selects members of its visiting staff with regard not only to their medical skill, but to their adaptability to the rules and discipline of the institution

The usual remedy for persons dissatisfied with the internal management of corporate affairs is to elect a new board of directors If the acts of the directors are generally regarded as arbitrary and unjust, contributions, without which the hospital cannot operate, will be withheld, and public opinion, the most potent regulator of public affairs, will furnish the remedy

We cite this case in extenso, believing that it covers many points of interest relative to the relationship of hospital visiting staffs and hospital governing boards

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All italics are ours References to legal sources precedents etc contained in the opinion have been omitted —*Editor*

Retirement of an Editor

The prospective retirement of Dr Morris Fishbein as editor of the *Journal of the American Medical Association* will be viewed with sincere regret by all those who know him For thirty-six years Dr Fishbein has devoted his extraordinary abilities to the improvement of medical journalism in the United States and has created a publication outstanding in the medical literature of the world

In 1913, Dr George H. Simmons, then editor of the *Journal*, went abroad for his vacation Dr E E Hyde, assistant to the editor, and acting editor during Dr Simmons' absence, died suddenly of myelogenous leukemia On August 27 of that year Dr Fishbein had commenced his work with the Association replacing Dr Hyde. Dr George Simmons had obtained his services on the recommendation of Dr Frank Billings and Dr Ludvig Hektoen Dr Fishbein served as assistant editor until Dr Simmons' retirement in 1924 when the latter was made editor emeritus During this period, 1913 to 1924, the editorials in the *Journal* were mostly the responsibility of Drs Lafayette Mendel, Ludvig Hektoen, and Morris Fishbein

In 1924 also, the offices of editor of the *Journal* and general manager of the A M A were separated on the ground expressed by Dr Wells P Eagleton of New Jersey that "the editor should devote his entire time to the scientific and ethical aspects of the profession, not to its business"[1] This, Dr Fishbein has done not only as editor of the *Journal* but in the advancement of medical education, improvement of hospitals, and the suppression of quackery

In 1949, by resolution of the Board of Trustees of the A M A , Dr Fishbein was relieved of many of his other activities

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[1] History of the A M A Philadelphia W B Saunders Co 1947 p 340

Hereafter the editor will confine his time exclusively to the scientific aspects of the Association and will not be available for public talks except on scientific subjects

Those being trained by Dr Fishbein as successors to his other jobs are Dr Richard J Plunkett, associate editor of the *Journal*, who will become editor of the nine specialized medical journals published by the A M A , Dr W W Bauer, director of the Bureau of Health Education and associat *Hygeia*, health magazine for the slated to be editor of the latte Magdaline Freyder, A M A hb will become editor of the quarte *tive Index Medicus* Dr Austin retary of the Council on Pha Chemistry of the A M A , ha training as the assistant edit *J.A M.A*

Current Editorial Comment

Production and Distribution of Isotopes

The year 1948 was the golden anniversary of Pierre and Marie Curie's discovery of radium Also, 1948 was the silver anniversary of the use by Hevesy, in Denmark, of radioactivity to trace the course and behavior of a stable element in a biologic system Then, in 1934, came what Aebersold calls the "miraculous discovery" by Curie and Joliot that nearly all ordinary stable elements can be induced to become radioactive [1]

The man-made radioisotopes at first could be made only in limited quantities at considerable expense by atom-smashing cyclotrons The new world of opportunities in medical research and application came only with the first successful chain reaction in uranium, developed by the wartime atomic energy project, known as a "nuclear reactor" or "atomic pile" Not until June, 1946, was it announced that pile-produced radioisotopes would be made available to those outside the atomic energy project

Within two years, in May, 1948, shipments of isotopes were at the rate of over 200 per month, to 119 institutions in thirty states and to fourteen foreign countries Individual projects in all fields of study number over 1,400, of which studies in medicine and biology total over 700 The isotopes most commonly used in physiologic studies are iodine 131, phosphorus 32, and carbon 14 In addition sulfur 35, sodium 24, potassium 42, iron 55 and 59, and calcium 45 have been used extensively Isotopes used in limited quantities for experimental therapy include gold 198, silver 110, copper 64, zinc 65, strontium 89, and cobalt 60 The fields of study embrace diagnosis, treatment, and research in metabolism, physiology, and pharmacology The Atomic En mission has made available tw radioisotopes of twenty elements in biologic and medical studies b gators in foreign countries S have been made to fourteen where impressive results are re more than a hundred individual p

The greatest present need is semination of detailed available tion on laboratory procedures o applications, and for training n scientists The Commission's C Technical Information provides on classified information, also it unclassified information and has n a system of fellowships for tra atomic energy development Ph are urged to write to the Isotope I Atomic Energy Commission, Oak Tennessee, concerning available n tion and assistance on whatever p they think may best be appl through the use of isotopes

[1] Aebersold P C J.A.M.A. 138 1222 (Dec. 25) 1948

The Baby Book

The State Depa of Health has issued an excellent in tive booklet for the laity under the title It has had a most favorable tion, judging from the fact that th edition of 110,000 copies was exhaust most immediately, and additional pri ordered, and from the many expressi praise received by the State Departi Through the various local health de ments and regional offices, the booklet offered to all hospitals in the upstate for distribution to their obstetric pati

The State Society's Committee on P Health and Education took an active in an advisory capacity in the prepara of the book *The Baby Book* should ser useful purpose for the instruction of prosp tive mothers in the care of infants

DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health

William A Brumfield, Jr , M D , Editor

Tuberculosis Control Program in New York State Institutions for the Mentally Ill

In 1941 the Departments of Health and of Mental Hygiene of New York State inaugurated a tuberculosis control program in mental institutions in an effort to lower the high morbidity and mortality rates and to prevent the transmission of infection

Initial case-finding surveys conducted at the hospitals for the mentally ill, the schools for the mentally defective, and Craig Colony for Epileptics were completed in 1944 and revealed prevalence rates many times higher than those of the general population At the hospitals, 4,133 of the 73,658 patients examined, and at the schools and Craig Colony, 377 of the 15,400 patients examined showed x-ray evidence of clinically significant pulmonary tuberculosis for prevalence rates of 5 6 per cent and 2 4 per cent, respectively A prevalence rate of 1 1 per cent was found for the 14,000 employes x-rayed at the hospitals, and a rate of 0 7 per cent for the 2,768 x-rayed at the schools and Craig Colony

The prevalence rates in the fifteen to nineteen year age group were higher for females than for males, in all other age groups the rates were consistently higher for males than for females In the schools the rates were higher for females than for males up to the thirty-five to forty-four year age group, above which the rates were higher for males When the length of the interval between first admission to a State mental hospital and the date of the initial x-ray survey was taken into consideration, it was found that prevalence rates were higher for patients with longer time periods following first admission It was noted also that in the hospitals where prevalence rates for patients were high they tended to be high for employes, and when the rates were low among patients they tended to be low among employes

The communicability of tuberculosis, fostered as it is in these institutions by such factors as overcrowding and the inability of the patients to observe prophylactic measures, necessitates the provision of separate buildings for the segregation and care of infectious cases At present only a few institutions have buildings used solely for their tuberculosis patients, some have separate wards in buildings housing nontuberculous patients, and others have no facilities and therefore transfer their tuberculous patients to the institutions where special beds are available Plans are now being made for the construction of new buildings and for the remodeling of existing buildings to provide conveniently located hospital centers to be used exclusively for the segregation and care of all cases of clinically significant tuberculosis By this means tuberculous patients would be completely segregated from the nontuberculous, and the relative number of employes subjected to the hazard of exposure to active cases would be decreased

Immediately following the initial survey at each institution a routine was established whereby chest x-rays would be made, from that time on, of all candidates for employment and of all newly admitted or readmitted patients From the time this routine was started in each institution, through 1946, figures showed a prevalence rate of 0 8 per cent of clinically significant tuberculosis among applicants for employment Among 12,794 patients newly admitted to 20 institutions, 351 were found to have clinically significant pulmonary tuberculosis, for a prevalence rate of 2 7 per cent When candidates for employment are found to have clinically significant tuberculosis, they are referred to tuberculosis hospitals for study and treatment, permanent ap-

pointment is not granted until evidence of the inactivity of the disease process is presented Patients found to have x-ray evidence of infectious disease are promptly segregated

The original and ideal plan to conduct resurveys at yearly intervals at all of the institutions has not been possible because of insufficient personnel However, resurveys conducted over a period of five years, with intervals ranging from more than two years to more than four years, are now nearly completed and indicate an average incidence rate of approximately 0 4 per cent per year for patients on the general wards In a special study of the incidence of pulmonary tuberculosis among employes in 13 institutions, the rate for employes in the hospitals was 0 1 per cent per year, which is approximately the same as the estimated rate for the general population of the State.

A system to supply basic data for clinical, statistical and epidemiologic studies has been established Provision has been made also for follow-up examinations, by local health departments, of discharged tuberculous patients, of tuberculous patients on convalescent status, and of their contacts

Preliminary studies in penal and correctional institutions indicate that tuberculosis prevalence rates for inmates, although not so high as for patients of mental hospitals and schools, are higher than those for the general population A control program, therefore, similar to that of the mental institutions, is now being proposed for the institutions of the State Department of Correction

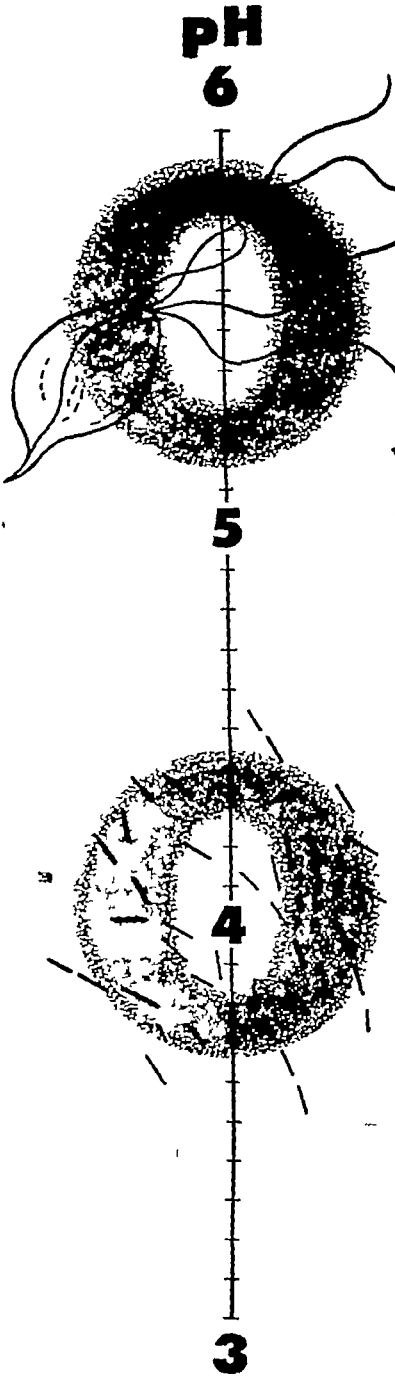
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MEDICAL SOCIETY OF THE STATE OF NEW YORK

District Branch Meetings—1949

Date	District Branch	Place of Meeting	Time
September 13	Fifth	Oswego	Afternoon and evening (dinner)
September 15–16	Fourth	Saranac Lake	Thursday afternoon, Friday morning (dinner Thursday evening)
September 22	Seventh	Rochester	Morning and afternoon (luncheon)
September 29	Third	Greene County Memorial Hospital, Catskill (A M) Catskill Country Club (P.M)	Morning and afternoon (luncheon at Catskill Country Club)
October 6	Eighth	Red Coach Inn, Niagara Falls	Afternoon and evening (dinner)
October 19	Sixth	Cortland	Afternoon and evening (dinner)
October 26	Second	Westchester County	Afternoon and evening (dinner)

No date for the meeting of the First District Branch has been arranged



REVERSE

THE PATHOLOGIC PROCESS IN VAGINITIS

Physicians recognize that the treatment in vaginal infection is to restore the vagina to its normal state

Criteria of cure consist not only of the amelioration of symptoms, but also of a return to a normal pH of 3 8 to 4 4 and the absence of pathogenic organisms in three consecutive smears.

Boehme* states. " the treatment of patients with Trichomonas infection must not only include a trichomonacide, but it must furnish sugars to be stored as glycogen in the vaginal epithelium and provide a favorable medium for regeneration of the Doderlein's bacilli which help maintain acidity We prescribe Floraquin tablets which contain Diodoquin (5-7-diiodo 8 hydroxyquinoline), a protozoacide, boric acid, and lactose and dextrose "

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Boehme E. J. Trichomonas Vaginalis Vaginitis, Diagnosis Treatment Causes of Failure in Treatment S Clin. North America 25:545 (June) 1945

SEARLE

RESEARCH IN THE SERVICE OF MEDICINE

G D Searle & Co., Chicago 80, Illinois

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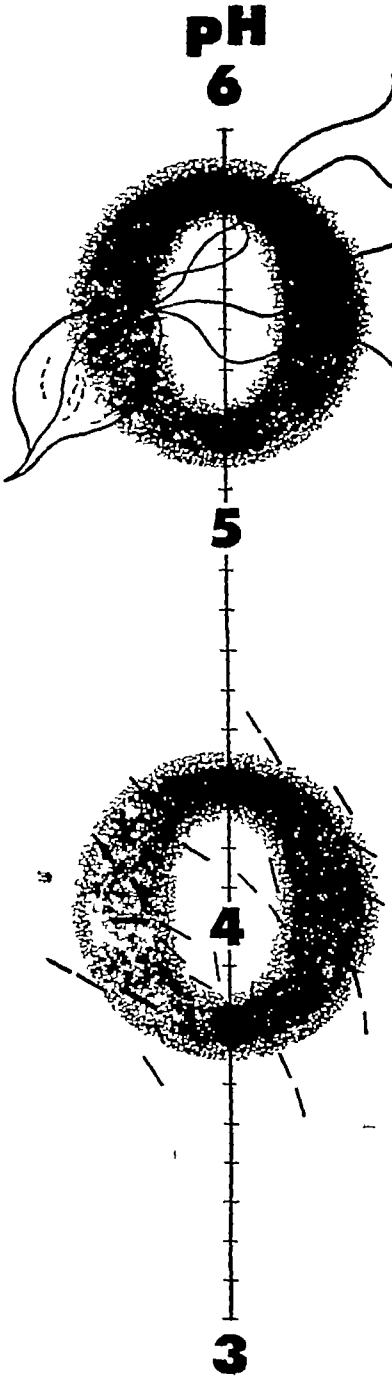
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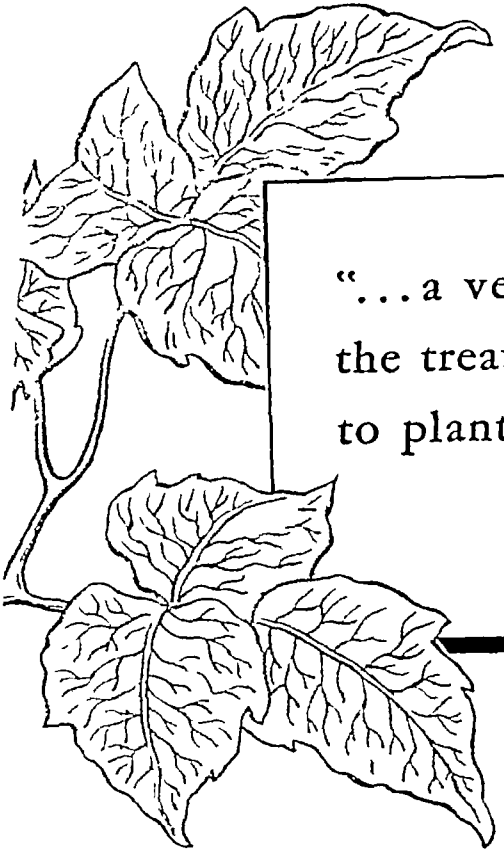
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*Boehme E. J.: Trichomonas Vaginalis Vaginitis; Diagnosis, Treatment Causes of Failure in Treatment S. Clin. North America 25:545 (June) 1945

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"In many instances the local skin conditions are, of course, more rapidly and more completely eradicated by the combined topical and oral administration of this drug"[1]

1 Carrier, R E Krug E S, and Glenn H R J Lancet, 68: 240 June 1948
2. Feinberg S M and Bernstein T B J of A M.A., 134 10 July 1947

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Scientific Articles

THE ULCERATIVE COLITIS PROBLEM

ALBERT F R ANDRESEN, M D , Brooklyn, New York

WHILE ulcerative colitis is not a very common disease, the treatment of a stubborn case is such a serious problem that a large number of articles on this subject is accumulating in the literature, each author's opinions differing so radically from those of other equally qualified contributors that the practitioner attempting to treat a case is today in a state of confusion Attempting to treat a diarrheal case with the usual bismuth and opium mixture or one of the newer antidiarrheal preparations and using suppositories or ointments if bleeding occurs, the practitioner finds his patient not improving and, in fact, going steadily down hill Turning to his medical journal, textbook, or drug literature, he finds justification for the use of any number of remedies which have been recommended by authorities on the subject of ulcerative colitis Over the years he has, without success, thus tried fever therapy, Bargen vaccine and serum, the various sulfonamides as they came out, a succession of antibiotics, and various organic preparations and hormones, trying each new one as it became available Unsuccessfully treated patients travel from clinic to clinic and, if they can afford it, from city to city to consult with the experts Many of my patients have been to one or more such medical centers at New York, Boston, Philadelphia, Baltimore, Chicago, and Rochester, Minnesota, getting different treatments and advice without permanent benefit I have seen patients with 20 to 30 bloody discharges per day, emaciated, dehydrated, suffering from various food deficiencies, who have been prattled to about personality changes and control of emotional factors In recent years an increasing number of these patients are being subjected to ileostomy, with or without colectomy, the surgeons pointing with pride to the fact that these unfortunate creatures are able to marry and procreate even with such an impediment to romance An evaluation of the whole problem would seem to be in order and should consist first of a discussion of pathology and etiology, which must determine the nature of the treatment in any disease

Pathology

The term "ulcerative colitis" does not embrace a pathologic entity Ulcers due to specific organisms with surrounding or generalized colitis may occur in any part of the colon The dysenteries are really colitides, due to bacteria of the Shigella group or to Entameba histolytica Acute infections with Salmonella organisms and with Bacillus pyocyaneus produce an ulcerative colitis which may become chronic Lymphopathia venereum, syphilis, tuberculosis, and direct infection of the bowel wall with pyogenic organisms may also produce what, in the general sense, may be called ulcerative colitis Even the presence of an ulcerating carcinoma will produce a surrounding colitis, and it is sad to relate how frequently patients with carcinoma are treated as ulcerative colitis cases until going beyond the stage of operability As a rule today, when speaking of ulcerative colitis, we mean a disease which runs a definite course but for which no specific organism has been found responsible and whose cause is in dispute—hence the term "idiopathic ulcerative colitis" Kantor suggested the term "colitis gravis" as a better name [1]

The pathologic lesions of such an ulcerative colitis occur in stages and may at first be found only in one segment of the bowel, often the rectum and sigmoid, and may remain localized there or spread later to the entire colon and even to the terminal ileum

In the early stages hyperemia, hypersecretion, and mucosal edema are present, and a punctate rash, resembling herpes, is usually seen As a result of localized ischemia, areas of necrosis develop and slough out, leaving ulcerated areas which, when they coalesce, cause

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York Buffalo Section on Gastroenterology and Proctology May 5 1949

extensive areas of denudation of mucosa with small islands or tabs of mucosa still visible These denuded areas may bleed upon slightest trauma or the sloughing out of the walls of small blood vessels may produce more profuse bleeding Very deep sloughing may produce single or multiple perforations with resulting local or general peritonitis and later adhesions, deformities, kinks, or obstructions Induration with infiltration by leukocytes, often demonstrable as eosinophils, may disappear with healing or may result in fibrosis with marked narrowing or stiffening and shortening of the colon The mucosal lesions may disappear entirely, or with long continued irritation islands of mucosal remnants may undergo polypoid changes in which carcinoma may, but does not often, develop More or less bacterial invasion may be found in the tissues, and *lymphadenitis may be demonstrable in the* mesenteric glands The early changes described above are identical, both grossly and microscopically, with the changes described by Gray, Walzer, Harten, and their associates They reported on their experimental work in gastrointestinal allergy, using the mucosa over human hemorrhoids and colostomies and the intestinal walls of the Rhesus monkeys, sensitized by passive transfer, to observe the pathologic changes caused by ingestion of the food to which the tissues had been sensitized [2-4] These changes were produced by a single swallow of the antigen It can easily be imagined what the effect of such insults frequently repeated would be in producing the more extensive changes seen in the severe cases

Etiology

There is a surprising difference of opinion as to the cause of ulcerative colitis Due to the fact that, except in the cases of specific organisms mentioned before, the colon bacillus is usually the only or the predominant organism found, it was assumed for a time that in some individuals it could become pathogenic The enterococci, normal inhabitants of the ileum and usually not viable in the colon except where carried through it rapidly as a result of diarrhea, were next implicated, and the Bargen diplococcus, one of this group, was considered specific Various other organisms, viruses, and fungi have been suggested at different times The fact that the disease occurred in many patients who had previously had dysentery implicated the dysentery organisms The food and vitamin deficiencies, actually the result of a lack of absorption, impelled some clinicians to include ulcerative colitis among the deficiency diseases The usual neuropsychiatric manifestations which should be expected to occur in patients with such severe gastrointestinal symptoms have been interpreted by the psychiatrists as the causative factors, and in some cases specific changes in colonic innervation have been postulated The often dramatic relief of all symptoms following eradication of focal infections has resulted in efforts at isolating a specific organism in the foci, without result The only factor which I have found to be almost invariably the cause of this disease has been allergy, usually to foods, although occasionally pollens, dusts, bacteria or their products, and endocrine or hormonal secretions would seem to be the allergens to which the patient has become sensitized The proof of the role played by the specific substances is not a simple matter It requires patience and thoroughness on the part of physician and patient to establish the cause or causes, but once these have been found, their effect on the bowel, as seen by roentgen study and proctoscopy, is very convincing And theoretically, comparison of the conditions in the intestine with those in another well-known shock organ, the respiratory tract, helps to explain a number of the conditions encountered in ulcerative colitis In asthma, for instance, severe, specific, acute infections often precede the onset of the original allergic symptoms, secondary infections may result in a masking of the cause, removal of focal infections will occasionally result in cure, neuropsychiatric symptoms abound and when, instead of occurring periodically the symptoms become constant and severe marked changes usually follow

Diagnosis

The history is important A family or previous personal history of some form of allergy is suggestive The onset of the disease may occur in several ways

1 It may be preceded by a more or less long-continued history of attacks of diarrhea or other abdominal symptoms, often attributed to specific dietary indiscretions, the patient stating that milk or coffee or some other food has acted as a laxative or cathartic

2 There may be a gradual onset with mild diarrhea in the early stages, gradually becoming more severe, and with bleeding becoming increasingly noticeable

3 The symptoms may occur sooner or later after an acute dysentery or an acute gastroenteritis or food poisoning

The symptoms are readily explainable on the basis of the pathologic findings The allergic

reaction in the mucosa causes spasms and hypermotility which produce pains, tenesmus, and diarrhea, the number of loose or watery stools varying from three or four to 20 or 30 per day The sloughing and exfoliation with bleeding and excessive production of mucus add blood and mucus to the stools and eventually will result in frequent bloody rectal discharges independent of fecal admixture, the patient often having actually only one real stool in twenty-four or forty-eight hours while 30 to 40 of the bloody rectal discharges are taking place per day

Anorexia, disgust for food, and the nervous symptoms, including a marked depressive state, resulting in insufficient food intake, the failure of digestive secretions, and the rapid progress of food over the diseased intestinal mucosa preventing adequate absorption, all combine to cause emaciation, dehydration, and evidences of food and vitamin deficiencies Absorption of toxic materials from the denuded areas and secondary infection will produce fever, adenopathy, and toxic symptoms The neuropsychiatric symptoms which may at first interfere with care of the patient often change for the better with unbelievable rapidity as the patient's general condition improves under proper care Complications cause serious symptoms Mesenteric lymphadenitis produces symptoms which may suggest an acute abdomen, and perforation, while rare, may be rapidly fatal I saw a patient who died following perforation of an old sigmoid diverticulum

Physical Examination—Abdominal examination may disclose nothing abnormal, may show distention, localized or general tenderness, or rigidity, and at times the thickened or spastic colon may be palpable and tender General examination will usually show the presence of focal infections, evidences of allergic reactions in the skin or other parts of the body, and in severe cases will disclose the marked emaciation, dehydration, and evidences of food, vitamin, and mineral deficiencies already mentioned It is important to ascertain at the start whether the patient has any organic lesions in any part of the body so that complications may be guarded against and treated early if they develop Search for focal infections in mouth, nose and throat, pelvis, and genitourinary tract should be thoroughly carried out

Rectal Digital Examination—This may show sphincter spasm which may later be changed to marked relaxation producing incontinence Hemorrhoids usually develop and may become so large as to require treatment Cryptitis occasionally associated with markedly enlarged papillae, which may protrude, are also distressing complications Rectal fistulas are frequently found The digital examination may also disclose strictures, polyps,and pelvic tumors, and in many cases previously treated for ulcerative colitis we find a hard, irregular carcinomatous infiltration

Proctoscopic Examination.—The findings in typical ulcerative colitis are those which were described in discussing the pathology of this disease In severe cases only a bleeding surface, looking like raw meat, will be seen, coated with blood and mucus and sloughing mucosa and showing yellowish pus discharges only where secondary infection has occurred These findings are in contrast with the discrete ulcers of amebic dysentery, scrapings from which will show motile amebae with enclosed blood cells and the multiple, small or coalescent ulcers with marked purulent and bloody exudate seen in bacillary dysentery Tuberculous and syphilitic ulcers and the lesions of lymphopathia venereum, which may be somewhat confusing because of their variability, are usually accompanied by other general manifestations of these diseases, and appropriate tests will establish the diagnosis Rectal and sigmoid carcinoma which often produce symptoms similar to ulcerative colitis must be ruled out Through the proctoscope biopsy specimens may be removed Smears should be prepared from scrapings, particularly to search for carcinoma cells or for the eosinophils so frequently seen in the ulcerative colitis, and material for cultures and further cytologic studies should be obtained by means of long pipets, syringes, or sterile swabs protected from contamination in long sterile tubes Repeated proctoscopies are a guide to improvement under treatment and to the effects of feeding of suspected allergens

Roentgen Examination—An opaque enema study should not be the full extent of the examination unless it has shown a definite obstruction of the colon A careful gastrointestinal series with films taken at frequent intervals after the barium meal will show the often concomitant small intestinal lesions or the effects of food and vitamin deficiencies The highly irritable colon may be empty in twenty-four hours, but at times the induration, adhesions, polyposis, or other changes may cause marked delay of the barium meal in the colon, even though the patient is having frequent bloody discharges from the rectum

The roentgen findings are quite characteristic At first colonic irritability and spasms occur, followed by disappearance of haustra-

tions when the edema and induration cause thickening of the bowel wall The bloody, mucus-coated mucosa produces the fuzzy outline seen in the films, and later, sloughs produce a ragged outline Progressive developments produce a general shortening of the colon, a gradual decrease in the size of the lumen, and evidences of kinks, adhesions, walled-off perforations, or obstruction Repeated roentgenographic studies during the course of the disease should be used to register the improvement which is to be expected under adequate treatment

If the patient's condition permits, a cholecystographic study should also be made All patients should have chest films to rule out tuberculosis or any conditions which might be complicating the intestinal condition

Laboratory Studies —These data are of considerable help Blood counts, not only to determine the degree of anemia which is often extreme, but to show the eosinophilia so often present, are important Chemical studies of the blood have shown no constant findings but may show acidosis, diminished chlorides, calcium, and phosphorus, renal insufficiencies, and varying degrees of vitamin deficiency Prothrombin determinations and other coagulation tests usually show normal findings The sedimentation rate is apt to be increased Serologic tests to rule out syphilis and lymphopathia venereum, and perhaps amebiasis, agglutination tests for dysentery, typhoid, and salmonella groups, and skin tests (Frei, tuberculin) should be performed routinely

Fractional gastric analysis, using histamine as a stimulant to gastric secretion, may show variations Absence of an achlorhydria does not necessarily rule out the possibility of absorption of unchanged protein as shown by Walzer and Gray Mere so-called "gastrogenous diarrhea" never accounts for the severe symptoms of ulcerative colitis, and this is also true of pancreatic deficiences

Stool Examinations —Such studies are important and should be performed daily for at least the first ten days At first they will show blood, mucus, and mucosal shreds, with or without admixed feces Cysts or ova of parasites should be looked for, and undigested food particles should be noted Although bacteriologic studies are best carried out primarily on specimens removed through the proctoscope as previously mentioned, they may be continued on specimens of stools, thus avoiding repeated instrumentation The effect of treatment on the flora may be checked, bacteriophages may be looked for, and vaccines may be prepared The improvement in the general appearance of the stools, the disappearance of blood, and the gradual increase in consistency in cases under proper treatment is most gratifying

Allergy Study —This may be started during the period of other examinations Authorities agree that skin and passive transfer tests are of no value in determining food sensitivity but may be useful if the patient is also sensitive to pollens, dusts, or emanations Bacterial allergy is difficult to demonstrate, but removal of infected teeth or tonsils may result in prompt disappearance of the ulcerative colitis, thus suggesting sensitivity to bacteria, their products, or the products of dead tissues produced by the infection Refer to an allergy department or specialist does not answer the requirements In a condition as severe as ulcerative colitis the food causing the severe reaction must be one which is being taken daily by the patient In my experience milk has been found to be one of the offending foods in over 80 per cent of cases and the only one in nearly 40 per cent Wheat in 18 per cent, tomatoes in 15 per cent, oranges and potatoes 12 per cent each, and eggs in 9 per cent are other sources. During the general study of the case I usually eliminate milk and milk products from the diet which should be well-balanced and contain an adequate amount of residue In milk-sensitive patients there will be considerable improvement in symptoms by the time the study has been completed, and thereafter a careful record of all foods eaten and of frequency and character of bowel discharges and general symptoms will usually disclose other allergens When no improvement occurs under the milk-free diet, a more detailed study is indicated Instead of slow and often inadequate elimination diets, we have been using a diet which contains none of the foods usually eaten daily and which have been shown to be so frequent a cause of ulcerative colitis In other words we eliminate milk, eggs, wheat, potatoes, oranges and tomatoes, and their products altogether, and in order not to have too many offending foods to deal with, we give a diet consisting of only about a half dozen foods which, after careful inquiry, we find the patient has not been in the habit of taking regularly and which he has not ever suspected of causing any symptoms Such a diet is necessarily not well-balanced, is often not sufficiently nourishing, and may cause some loss of weight so that it must be emphasized that it is used for only a few days Careful individual study by the physician, intern, nurse, or other daily attendant is absolutely necessary A sample diet of this kind is our

allergy test diet number 2 consisting of five foods—gelatin, rice, rye, peas, and raspberry (or other vegetable or fruit)—and given as follows

ALLERGY TEST DIET

Breakfast boiled rice, Ry-Krisp, gelatin drink, raspberries
Lunch peas, Ry-Krisp, gelatin drink, raspberries
Supper same as lunch or breakfast
Between meals and at bedtime gelatin drink and Ry-Krisp

The gelatin drink is made by adding a teaspoonful of powdered gelatin to a fruit juice made of the fruit or berry used in the diet, sweetened and fortified with dextrose Sixty to eighty grams of gelatin and 100 to 150 Gm of dextrose can be used in this diet to supply protein and to bolster the caloric intake

If this diet contains no food to which the patient's colon is sensitized, definite improvement can be seen within two or three days Stools become a little less frequent and bloody, the patient becomes brighter and says he feels better in general, and fever may show a downward course If this improvement does not occur, it means that either the patient is allergic to one of the five foods being taken, that he is allergic to some other factor (bacteria, pollens, etc), or that the case is not one of allergic origin The very restricted allergy diet must not be kept up too long in such cases, although at times it may require five or six days to get definite improvement

When improvement occurs, new foods are added daily with careful observation for any even slight exacerbation as a result of any particular addition By repeated trial, allergens can be conclusively demonstrated In view of the fact that the six foods previously mentioned are usual offenders, they should not be tried out until the patient has achieved a maintenance diet by the addition of meats, cereals, vegetables, and fruits in considerable variety A complete study for food allergy may take from two to four weeks Finally, the patient is placed on a well-balanced diet with caloric values according to his requirements, and it is surprising to see the improvement on a diet free of offending allergens, even though the diet contains considerable quantities of so-called roughage Desensitization to offending foods by injection of food proteins or by feeding increasing quantities has not been found of value

Treatment

Although removal of the offending foods from the diet is essential and removal of focal infections may be of the greatest value in treating a patient with ulcerative colitis, there are definite indications for other therapeutic measures

General Treatment.—Rest, physical and mental, is indicated Fluids to replace those lost by the diarrhea are necessary and at first must be given parenterally Transfusions, plasma, and glucose and saline solutions with added ascorbic acid should be used to reestablish water balance and overcome the anemia Protein hydrolysates, amino acids, and albumin are of help, but in milk-sensitive patients the milk derivatives may cause untoward reactions and may aggravate the bowel lesions This may also be true of blood from a donor who has eaten food to which the patient is sensitized Vitamins, minerals, and endocrine and hormone products must be given, at first parenterally Hygienic care, fresh air, sunshine, ultraviolet radiation, and oral hygiene are imperative

Symptomatic Treatment.—In order not to disguise the effects of the allergic study this should be kept at a minimum, but in the early stages some sedatives and antispasmodics may be prescribed Coagulants may be indicated Skin and rectal conditions may require attention, preferably not surgical Gelatin enemas may help to control bleeding and allay irritation

Immunologic treatment, the use of vaccines, sera, bacteriophages, or bacterial filtrates, is of value in some cases Artificial pyrexia, very popular twenty-five years ago, is still being used and is useful in any allergic state

Specific Therapy—This is of course necessary for amebiasis, and a course of amebicidal therapy is recommended by some as a good routine procedure to rule out the possibility of unrecognized amebiasis Some authorities also recommend routine treatment with sulfonamides which are, necessarily, only of value where the colitis is specifically bacterial in origin and where there is a complicating secondary infection Antibiotics have also had their advocates but are of value only where infection plays a prominent role Whether or not the bowel content can be sterilized is of comparatively little moment in a case of allergic colitis

Psychotherapy—So popular today in a great variety of chronic illnesses, it is also strongly advocated in this disease Without doubt, the extremely ill ulcerative colitis patient requires proper psychologic, supportive care, but elaborate psychologic studies often make the patient more miserable It is remarkable how rapidly

the patient's mental attitude improves when symptoms begin to subside

Surgical Treatment.—I have not yet found an uncomplicated case which has required an operation Too many patients are being subjected to ileostomy or colectomy who should have been helped by proper medical care Certainly any operation performed during an acute severe exacerbation is too risky to be considered Even operations for hemorrhoids or fistula-in-ano may cause a fatality If, as a result of prolonged or repeated attacks, the colon has become obstructed or badly crippled as a result of scarring, fibrosis, adhesions, or extensive polypoid changes, operation must be considered Acute perforation, which may require operation unless promptly walled-off, is a very serious complication

Prognosis

Mortality in our cases treated as outlined has been under 5 per cent and then due to complications When the treatment has been faithfully carried out and the patient has been placed on a regime based on the facts learned during the study and the early treatment, some patients will not have exacerbations, but most of them will return, even as they will with asthma, hay fever, and other allergic conditions If, at the onset of an exacerbation, a careful search for the cause is instituted, it will usually be found that

1 The patient deliberately or inadvertently ate one of the foods to which he had been found to be sensitized

2 That some new sensitivity, perhaps not previously recognized, such as pollen sensitization, may have developed

3 That activity at some focus of infection, an abscessed tooth, an acute upper respiratory or acute pelvic infection, has occurred

In an intelligent patient under careful, although not necessarily close, supervision by a clinician familiar with allergic problems, the prognosis in ulcerative colitis can be said to be decidedly favorable, not only in regard to restoration of a well-functioning colon but in regard to the danger of severe exacerbations

Summary and Conclusions

1 Food allergy is the most important etiologic factor in so-called "idiopathic ulcerative colitis"

2 Pathologic changes in the colonic mucosa are identical to those seen in experimental work in intestinal allergy

3 The history and the symptoms in ulcerative colitis are explainable on an allergic basis

4 Secondary infections require specific care

5 The good effects of treatment based on the concept of allergy can be demonstrated by proctoscopic and roentgenologic studies

6 General treatment should not be neglected

7 It is important not to treat a patient for allergic ulcerative colitis until all other causes have been definitely ruled out and particularly only after carcinoma has been excluded as a cause of symptoms

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Discussion

John R. Paine, M D, *Buffalo*.—I do not know of any surgeon who would disagree with the statement that the primary treatment of patients with idiopathic ulcerative colitis should be medical in character On that point we are all agreed. On the other hand, I think that surgeons have a just cause for complaint to their medical colleagues when they are first consulted late in the course of this disease in a patient who is progressively getting worse despite the best and frantic efforts of his doctor Indeed, too often the surgeon is called in when the patient is scarcely more than moribund As long as this situation prevails, there can be little excuse for any dissatisfaction with the relatively high mortality rates associated with surgical treatment.

Dr Andresen has stated that he has had a mortality rate of 5 per cent or under in his patients with ulcerative colitis treated medically and that this mortality has been due to complications Inasmuch as the complications of ulcerative colitis are usually recognized as indicating surgical treatment, it would be my feeling that the mortality of patients treated solely by medical means should be zero if exception be made for those patients having a fulminating variety of the disease, which even the boldest of surgeons usually refuses to have anything to do with Yet, we surgeons might be justified in still further improving the mortality statistics of medical treatment by accepting these extremely poor risk patients and with the help of the best modern supportive treatment subject them to a one-stage ileostomy and colectomy There is little to lose in such a situation, and the results might be interesting

Permanent ileostomy with or without colectomy remains the standard surgical procedure for patients with idiopathic ulcerative colitis Considerable debate exists, however, as to when and how often these procedures are indicated Aside from the usual complications, I believe that the patient who fails to respond satisfactorily to six weeks of medical treatment or who has a remission of his disease severe enough to require hospitalization should be subjected to ileostomy I doubt if Dr Andresen would concur in this opinion It is also my opinion that few patients subjected to ileostomy should be allowed to retain their colons because of the high incidence of carcinoma that is known to exist in these

individuals Surgery is ruthless perhaps, but its goal is to "cure" the patient, whereas medical treatment, whatever its aims may be, usually achieves only "control" of the disease

I am not unmindful of the disadvantages of ileostomy or of the far-reaching, indirect but adverse effects which it may have, but I think all of us can find encouragement in the facts presented by Drs McKittrick and Moore on this subject at the meeting of the American Medical Association in Chicago in June, 1948 They reported that among 104 patients with ileostomies performed for idiopathic ulcerative colitis, 84 per cent considered themselves to be in good health, 97 per cent were working, and 67 per cent considered their social life to be satisfactory Remember that medical treatment had failed in these patients!

I am sure that all of us hope that Dr Andresen may be correct in his theory that allergy explains the cause of this condition If future experience shows that others can duplicate the excellent results that he reports from his clinic, much will have been accomplished. He must excuse us, however, if for the moment some of us remain skeptical

John J Maisel, M.D, *Buffalo*—Dr Andresen has again emphasized his ideas concerning the role of allergy in the cause of idiopathic chronic ulcerative colitis His views are quite provocative

When a clinician of such outstanding ability as Dr Andresen draws such conclusions as he has, one should be provoked into a very careful analysis of our patients along the paths which he has outlined. There is no doubt that the clinical course of many patients is unsatisfactory because of an undiscovered allergy, whether it be a primary or an aggravating factor in this disease It behooves us, therefore, to search diligently for such a condition I must admit that I have gone through several cycles in reference to allergic studies not only in ulcerative colitis but in other gastrointestinal diseases At times, chiefly under the stimulus of Dr Andresen's reports, I have stressed such investigations, only to become somewhat discouraged with my failures and consequently to neglect them However, after hearing the paper today I am once again ready to give allergy the attention which it properly deserves, and I hope that others who have had negative results will review this aspect of their work.

Allergy probably plays some role in ulcerative colitis, but it is impossible to agree with Dr Andresen's statement that "allergy is almost invariably the cause of this disease" The broadness of this statement has been and still is quite controversial In this respect I would like to comment briefly on the experimental evidence of Gray, Walzer, and Harten which Dr Andresen has cited. Although it is true that the tissue reactions which this group described are very similar to those seen in the early phase of chronic ulcerative colitis, there is one important difference, namely that the experimental changes were of a very transient character, disappearing within one hour, while those in the disease are, of course, persistent No one yet has been able to develop the lesions of the more advanced stages of ulcerative colitis by allergic reactions It requires the theoretic assumption that repeated allergic insults will, in time, produce ulceration This may be true, but it remains to be proved. Furthermore, the allergic theory implies that the colon is the selective shock organ, at least in those patients with colonic disease only It is difficult to understand why this should be so, for in experimental work the entire gastrointestinal tract reacts equally to allergic reagins Therefore, it seems as though it is very hazardous to use such a theoretic concept as a basis for the etiology of this disease without very definite clinical proof Has such proof been obtained?

If allergy were invariably the cause of chronic ulcerative colitis, it would be impossible to account for the improvement which one observes in patients who have been treated by many other methods or symptomatically only, giving no consideration to any allergic factor Yet the clinical result that one sees with such methods is, I believe, comparable to that obtained by Dr Andresen. Also fitting into this category are the patients who go into a spontaneous remission, such remissions, although not quite as characteristic of this disease as they are of peptic ulcer, are commonly observed. All of these patients are exposed to the same allergens, whether they be food, pollen, or bacteria, during their remissions, which may continue for months or even years, as they are during the active phase of the disease

Incidentally, I would point out that, in general, chronic ulcerative colitis need not be regarded too pessimistically Many, if not most, patients have the disease in a mild form which is amenable to very simple therapeutic measures I feel that the concept of the disease is somewhat colored and distorted by that group of patients who develop it in a severe form and who become our hospital and eventually our surgical problems

I want to express one more thought According to recent papers and discussions it would seem that the internists and gastroenterologists are almost ready to abdicate their duty to treat ulcerative colitis by transferring that duty to the psychiatrist I feel very definitely that the psychiatrist is needed in only a small number of cases Dr Andresen's comprehensive paper outlining the variety of therapeutic measures employed clearly shows that the treatment of this disease must remain within our fold.

Dr Andresen, *Closing*—I am much gratified that my presentation brought out such comprehensive discussion I am glad that the surgical discussant agrees with me that surgery should be confined to the complications of ulcerative colitis which produce persistent symptoms

I have seen a number of patients treated by ileostomies alone, who have had a persistence although a diminution, in colonic symptoms, and some of those with colectomies have developed ileitis which closely resembled the original ulcerative colitis Unless the cause has been found and eliminated, there will be persistence or recurrences even after operation No definite period of so-called "medical treatment' can be postulated as

being of the proper duration to effect a satisfactory result It depends on the type of treatment used

The search for an allergic cause for the disease is often discouraging and takes a great deal of patience on the part of patient and physician Not all patients can be persuaded to go through such a study but prefer operation, crippling and unsatisfactory as it is Comparing ulcerative colitis with allergic manifestations elsewhere, as in the respiratory tract, discloses many similarities Allergic reactions may occur in the whole gastrointestinal tract or in the whole respiratory tract at one time or may occur in only parts of them, as in the stomach or colon or in the nose or bronchi Repeated mild allergic insults will result in no organic changes, but continued reactions will have an effect in both tracts Seasonal occurrences and spontaneous remissions are common to both, and only careful study will reveal the reason for them Asthma may be due to food allergy, ulcerative colitis to pollen allergy That ulcerative colitis can be caused by allergy is not a theory It is a fact that can be testified to by anyone who has seen through the proctoscope the entire disappearance of lesions upon withdrawal of an allergen and their reappearance upon its resumption

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CURE FOR UNDULANT FEVER

Two Northwestern University physicians reported this week that BAL (British Anti-Lewisite) may become an effective weapon against undulant fever Their experiments show that the compound kills the disease microbes in test tubes

Dr Harry B Harding, associate professor of bacteriology, and Dr Gordon W Raleigh, on the staff of the department of medicine, both of the Medical School faculty, told results of test-tube research with the drug before a recent meeting of the Evanston Hospital Alumni Association

Animal studies are now under way to determine whether BAL, originally developed as an antidote for Lewisite, a poisonous arsenic gas, may be employed as a cure for undulant fever (brucellosis) in humans

In their research, Drs Harding and Raleigh first grew the disease microbes in culture tubes at body temperature for forty-eight hours A row of sterile broth tubes then was set up and BAL added in minute amounts The first tube in the series received the largest amount of the drug, and the others proportionately less, with the last tube receiving the least Then a standard amount of brucellosis culture was added to all tubes, which then were incubated for a number of days

In this way, the smallest amount of the drug which would completely inhibit growth of the microbes was determined According to the researchers, in order to be practical the BAL must be active in such small amounts that it will kill bacterial organisms without harming the undulant fever patient. It is one thing to kill bacteria in experiments, and quite another to avoid overdoses in therapy on humans

Undulant fever is widely prevalent in American rural areas and among urban slaughterhouse workers. Aside from handlers of raw meat of cattle, goats, and swine others contract the disease from the drinking of unpasteurized milk from cows infected with Bang's disease, the bovine strain of the disease

A debilitating ailment, undulant fever causes alternating sustained fever and periods of great weakness in its acute form In its chronic phase, it resembles neuroses, among other manifestations. For example, the patient chronically afflicted with brucellosis experiences depression moods, lack of appetite, and diminished interest in his surroundings

TREATMENT OF PAPILLARY ADENOMAS OF THE RECTUM

GEORGE E BINKLEY, M B (TOR), DOUGLAS A SUNDERLAND, M D , and CHARLES J MILLER, M D , New York City

(*From the Memorial Hospital*)

PAPILLARY adenomas are frequently encountered in elderly patients This type of new growth in the past has not received sufficient consideration. Large papillary adenomas are described as villous tumors, but there is practically no mention in the literature of small lesions In recent years this type of tumor has been recognized more frequently and now comprises an important group of rectal tumors

Papillary adenomas are usually confined to the rectum Occasionally, one is situated above the rectosigmoidal junction Early lesions resemble irregular-shaped, elevated areas of hyperplasia The small tumors, when first discovered, are seldom less than 2 cm in diameter, but recurrent tumors of a much smaller size are often seen Large tumors may be 12 0 or more cm in diameter and involve as much as three fourths of the total surface of the rectal mucosa The clinical appearance, as viewed through the proctoscope, is that of a large, irregular-shaped, sessile polyp with a lobulated or papillary surface Occasionally, villi are visible without magnification Benign papillary adenomas are soft, and many are difficult to recognize by palpation The early symptoms consist of the passage of occasional small amounts of blood, an increased amount of mucus and slight change in the normal bowel habits Bleeding becomes more marked with enlargement and also with the onset of malignant change Large tumors secrete a large amount of mucus, which produces tenesmus and morning diarrhea Bulky, semistenosing tumors of the upper rectum and sigmoid often cause varying degrees of intestinal obstruction.

Treatment of papillary adenomas is an interesting problem because of the numerous variable factors associated with the disease The chief factors to be considered in the selection of treatment are (1) the benign and malignant qualities of the tumor cells, (2) the size of the tumor and its location within the rectum, and (3) age, general condition, and mental outlook of the patient

The benign and malignant qualities are of paramount importance in the outlining of appropriate treatment and in predicting the prognosis Papillary adenomas in the beginning are nonmalignant tumors A large number, however, undergo malignant change if not completely removed Papillary adenomas, in accordance with their histologic appearance, may be separated into the following groups (1) benign or nonmalignant tumors, (2) benign tumors that contain islands of cells that show atypical but not definite malignant change, (3) benign lesions that contain islands of adenocarcinoma, and (4) tumors containing invasive carcinoma in which small areas of nonmalignant papillary adenomatous tissue still remain

Atypical and malignant changes may occur at the surface, near the center, or at the base of the tumor Oftentimes, malignant qualities can be predicted to a rather accurate degree by the clinical features Purely nonmalignant lesions seldom bleed Atypical lesions bleed slightly on trauma, while bleeding of an annoying degree is encountered with malignant tumors Nonmalignant growths are uniformly soft, while those possessing cancer cells have areas of induration which are usually recognizable on palpation with the finger or palpation with the proctoscope There may be some cases of invasive cancer without recognizable induration Repeated proctoscopic examinations and repeated biopsies afford a preliminary working classification for the outlining of treatment Final determination as to benign and malignant qualities rests with the well-trained pathologist who has received the whole tumor for histologic examination.

The above fact is well demonstrated in a review of our cases The first biopsy study suggested that 58 per cent of the lesions were benign, atypical change was noted in 26 per cent, while 16 per cent revealed definite rectal cancer Repeated biopsies or examination of the whole tumor revealed that only 10 per cent of the cases remained purely nonmalignant, 28 per cent of the others did not advance beyond the atypical stage, while cancer of either large or small areas was demonstrated at the time of removal or during the follow-up period, which extended over many years in 62 per cent of cases

The size of the tumor and its location within the rectum are other factors which influence treatment Papillary adenomas may be divided according to size into small and large tumors, the small measuring less than 4 cm and the large

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variety, which constituted 72 per cent of this group, measuring more than 4 cm in diameter The majority of nonmalignant papillary adenomas can be treated through the anal canal Inaccessible locations are the upper rectosigmoidal area and upper surface of the rectal valves Small, accessible, nonmalignant polyps are most suitable for local removal Inaccessible lesions and those that have attained a very large size may require radical resection

The age and general condition of the patient may at times influence treatment The average age of this series was sixty-one years Papillary adenomas are found in old and debilitated patients who are unable to withstand appropriate radical procedure Other patients due to age and mental attitude may refuse treatment unless it is of a minor nature Palliative measures may be used to advantage under the above circumstances

Treatment may be classified as radical or conservative Conservative treatment usually indicates local removal with preservation of the rectum and sphincter control Radical treatment consists of some type of segmental surgical resection of the primary lesions with or without continuity of bowel and sphincter control Local removal may be carried out by one of the following technics (1) electric cautery snare, (2) snare removal followed by fulguration of unremoved tissue, (3) local excision by means of an electric cautery knife, and (4) surgical excision and ligation of the base

The majority of small, nonmalignant-appearing tumors can be removed by the electric snare technic This type of removal preserves the whole tumor for histologic examination and permits a definite appraisal of malignant qualities Having accomplished what appears to be a complete removal of the tumor, the surgeon closely observes the healing of the rectal wound in order to determine the final results Wounds that heal without undue induration are considered satisfactory The local disease with such healing in all probability has been completely removed Careful follow-up examinations are necessary in every case.

The real difficulty in obtaining complete local removal with a snare occurs in the group of large tumors The snare is capable of removing the redundant polypoid part of the tumor, but it is often impossible to remove all papillary tissue from a large sessile base The papillary tissue that remains after cautery snare removal in a number of cases may be destroyed by fulguration or dessication Fulguration, to be successful, must be carried to the degree of devitalizing all papillary tissue above the circular muscle fibers of the rectum Snare removal, followed by fulguration, if unsuccessful in eradicating the disease, must be considered only the first step of treatment Snare removal preserves the majority of the tissue for histologic study Further treatment may consist of another attempt by conservative methods or resorting at once to surgical dissection Incomplete removal, in which the examination of the tissue reveals invasive cancer, must be followed by radical surgery The disease must be eradicated by one method or another in a comparatively short time, regardless of the pathologic report Non malignant tumors should never be allowed to become cancerous, nor an early cancerous lesion permitted to disseminate by the lymphatic and blood streams

Dissection of the tumor base from the circular fibers of the rectum by means of a flat electrode has been employed in a few cases This technic has been undertaken in an attempt to obtain more thorough removal of large, irregular-shaped polyps A coagulating current permits the operator to dissect the tumor base from its attachments under direct vision and without bleeding Preliminary results encourage the continuation of this method in the large, irregular-shaped, low lying, accessible, nonmalignant tumors

Local excision has proved to be the method of choice in a small group of large tumors located in the lower rectum This technic is suitable for polyps that can be prolapsed through a relaxed anal canal Under anesthesia, the tumor is drawn through the anus beyond the external sphincter muscle The rectal mucosa or the section of rectal wall which forms a pedicle when traction is applied is clamped and the tissue proximal to the clamp ligated with interrupted mattress sutures The tumor is removed with a scalpel and the prolapsed rectum replaced This operation affords a wide local excision and has been followed by gratifying results in a small number of cases

Some type of segmental resection is the treatment of choice for malignant and atypical papillary adenomas and also for nonmalignant tumors which cannot be eradicated by conservative methods The most radical forms of rectal surgery are necessary for the invasive types of malignant papillary adenomas The operation of choice consists of the one-stage abdominoperineal resection for tumors located in the lower rectum Segmental resection with end-to-end anastomosis may be employed for a number of lesions of the lower sigmoid and rectosigmoidal junction Wide local resection of the bowel and excision of the lymphatic drained areas is advisable in all malignant cases

Our present knowledge of the behavior of atypical papillary adenomas indicates that this type

of disease can no longer be treated as an innocent nonmalignant tumor. Treatment in the past has been too conservative Many recurrences have followed the previously described type of local removal It now appears that in order to salvage the highest percentage of cases in this group, the tumor-bearing area will need to be completely removed in a surgical fashion This removal may be accomplished by a proctosigmoidectomy Five cases have been treated in this fashion The operation affords continuity of bowel but is not always followed by satisfactory sphincter control Segmental resections with end-to-end anastomosis are suitable for a number of lesions in the upper rectum Further experience, with different types of surgical removal and careful follow-up, will in time suggest the type of surgery most suitable for removing atypical papillary adenomas

Radical rectal surgery, even in the elderly group, can be performed with a very low operative mortality Present day improved surgical technic, accompanied by improved pre- and postoperative care, when combined with the use of antibiotics, greatly lessens the dangers of major surgery Antibiotics have proved to be of great value in preventing serious infections in elderly people Simplified technic in the care of the abdominal colostomy has lessened the objectionable features of this artificial condition

Radiation therapy has but a limited place in the treatment of papillary adenomas These polyps are comparatively radiosensitive Our best results with the use of the physical agents have been in the large, irregular-shaped, nonmalignant group of tumors which were not completely removed by snare and fulguration This type of application consists of external high voltage roentgen rays, surface applications of radium administered by special applicators, and, in a few instances, the insertion of gold-filtered radon seeds High-voltage roentgen rays and surface applications of radium seem most useful Irradiation of the malignant variety produces growth restraint but will not eradicate the disease unless very heavy dosages are employed Large dosages of radium are not well tolerated by the majority of elderly patients Moderate repeated dosages of roentgen rays and radium rays in the form of local applicators, combined with snare removal and superficial fulguration, have produced palliative results Symptoms were lessened and the patients made quite comfortable Palliative treatment should be limited to those patients who are unable to withstand curative treatment or who refuse operation.

Cases treated from 1922 through 1943 have been analyzed in an effort to determine the final results and improve future treatment This group consists of 51 patients Twenty-two patients died as a result of or with cancer of the rectum Four died of other causes with residual benign disease Five who had complete eradication died of intercurrent disease Two are alive and well with residual benign disease Three, who are lost to follow-up, were free of polyps when last examined Fifteen other patients have survived the five years or more without recurrence

These results, although not satisfactory, are very interesting and instructive During the period under consideration, papillary adenomas were thought to be nonmalignant and rarely to develop into active rectal cancer On this assumption, treatment was of a palliative nature, often directed in the case of large tumors toward relief of symptoms rather than complete eradication of the polyp These results also serve to emphasize further the importance of selective treatment in accordance with the benign, atypical, and malignant qualities of the tumor By a better selection of cases and more appropriate treatment, we are hoping for marked improvement in the results of treatment of papillary adenomas of the rectum

Summary and Conclusions

1 Papillary adenomas occur in elderly patients, the average age being sixty-one years

2 Tumors, at the time of recognition, may be benign, atypical, or malignant

3 There is a marked tendency for benign and atypical tumors to undergo malignant change if not completely removed

4 Selective methods are preferable to any routine procedure Treatment consists of one of several types of local removal and radical bowel resection

5 Benign forms of the disease should be eradicated in a comparatively short period of time

6 Atypical papillary adenomas can no longer be considered innocent, nonmalignant forms of disease

7 Radical surgery is advisable for malignant and atypical tumors and for the large, nonmalignant tumors that cannot be removed by conservative methods

121 East 60th Street

Discussion

Sidney A Gladstone, M D, *New York City* — The presentation of Dr Binkley and his associates represents a continuation of their previously reported detailed and informative study of the clinical

and morphologic features of 48 cases of papillary adenoma of the large bowel Three points appear important first, the long duration of the disease, second, the tendency of almost two thirds of these cases to become malignant, and third, the importance of microscopic examination for evaluating the degree of malignancy and for guidance with respect to treatment

In connection with the microscopic examination of mucosal and ulcerating lesions of the rectum and rectosigmoid we have been using the method of sponge biopsy for about one year In a series of 15 cases of rectal cancer we have encountered two in which the surgical biopsy has been negative and the sponge biopsy positive The first case was that of a fifty-two-year-old white man who was admitted to the New York Polyclinic Hospital and proctoscoped because of a history of rectal bleeding The proctologist saw an ulcerating lesion and excised a piece of tissue for biopsy The resident, who had previously learned about sponge biopsy in our department, rubbed a sponge over the area and sent it along separately for microscopic examination The surgical biopsy showed a benign polyp, the sponge biopsy showed adenocarcinoma. After operation, the surgical specimen showed the presence of adenocarcinoma along with several benign polyps.

The second case was seen in the office of Dr Gorsch The patient was a thirty-eight-year-old man who gave a one-year history of diarrhea and rectal bleeding A surgical biopsy done elsewhere showed "normal rectal mucosa, muscle wall, apparently polypoid tissue" On examination Dr Gorsch saw a lesion in the rectosigmoid which appeared so friable that he preferred not to excise any significant amount of tissue because of possible perforation of the bowel wall He accordingly did a sponge biopsy On microscopic examination this showed numerous particles of tissue characteristic of adenocarcinoma of the large bowel

In both these cases sponge biopsy demonstrated the presence of a cancer previously missed by surgical biopsy It would seem that sponge biopsy has a place among the diagnostic procedures of the proctologist in the examination of accessible mucosal or ulcerating lesions.

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THE RELATION OF AMEBIC DYSENTERY TO CHRONIC ULCERATIVE COLITIS

WILLARD H BERNHOFT, M D , Buffalo, New York

THE material for this presentation is based on 105 cases of amebic dysentery which I observed and studied while serving with the armed forces in the South Pacific Diagnosis was established by finding the vegetative forms of ameba in material taken directly from the surface of the typical amebic ulcers which were found on proctosigmoidoscopic examination

After two weeks of antiamebic therapy, these patients were re-examined It was of interest to note that in 23 of the patients the entire mucosal surface had changed in appearance and did not have the characteristic ulceration of amebiasis It was markedly edematous and granular in its entirety with many petechial hemorrhagic spots, and in some there were ragged ulcerative areas which bled easily on trauma In accounting for the change, the impression was, at that time, that a secondary infection had developed in the amebic ulcers Bacteriologic studies showed no specific organisms except mixed staphylococci and streptococci There was some improvement noted, both clinically and proctoscopically, after sulfa therapy

I have been unable to establish contact with the entire 105 patients I do know, however, that two of the 23 patients, who did not respond to antiamebic therapy, have died since release from service These developed intermittent diarrhea and bloody stools with continued weight loss On the basis of the original diagnosis, their doctors placed them on very intensive antiamebic therapy without success At that time, the stool examinations were negative for both the vegetative and encysted forms of ameba The autopsy studies failed to reveal evidence of amebiasis but showed a typical picture of an acute, fulminating, nonspecific type of ulcerative colitis with perforation and generalized peritonitis

In 1947 we examined 49 patients who, according to their armed service records, had amebic dysentery while in the army and were treated for same At that time, our examinations were completely negative, despite the fact that the patients claimed frequent attacks of diarrhea These examinations included stool studies

Because many of these 49 men were having educational, domestic, and work problems, the diarrhea was considered to be of a functional nature and was treated as such Intermittent proctosigmoidoscopic examinations subsequently failed to reveal any organic pathology in any of these cases until this year At the present time, four of them are showing, in the mucosa of the rectum and pelvic colon, changes which are characteristic of ulcerative colitis Smears made from material taken from the inflammatory areas, as well as stool studies, are negative for specific organisms

Comment

In reviewing the literature I have been unable to find case reports of amebic dysentery which have followed a course similar to the two of which the autopsy studies showed a typical picture of an acute, fulminating, nonspecific type of ulcerative colitis At the present time, I am certain that 27 of the remaining 103 are alive This series is too small for statistical value, but the subject's importance makes it worthy of discussion Nineteen have had no recurrences of symptoms, five are still having nearly continuous diarrhea and have been hospitalized two to five times in four years, and three have had recurrences which responded to antiamebic therapy

It is not within the scope of this presentation to attempt further theorization as to the cause of ulcerative colitis Likewise, from the last small series of 49 cases in 1947, no definite conclusion can be made

It is my feeling that these patients had an inherent tendency toward the development of ulcerative colitis and that the previous specific inflammatory disease was the active factor in bringing about the manifestation of this tendency

Although we have presented cases of amebic dysentery here, it is my belief that patients with other specific dysentery will follow a similar course With this in mind, it behooves us to follow these cases carefully, and, when recurrences are noted, we must not assume that they have amebic dysentery nor overlook the fact that other specific dysentery may lead to an ulcerative colitis

From the replies which I have received from the original 105 cases, it is of interest to note that many have not had the benefit of proctosigmoidoscopy since they were first sent to a gastroenterologist or proctologist shortly after their release from service They have been followed by the Veterans Clinic or their family doctors who have

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prescribed antiamebic therapy when their illness recurred

It is true, and I am in agreement with those who may believe that, with the government compensation received by some of the patients, there is incentive to magnify and even falsify symptoms of the disease Before drawing this conclusion with regard to any individual, he is entitled to have thorough study

When there is clinical, proctoscopic, and radiographic evidence of ulcerative colitis, one should not be misled by the original diagnosis in the management of his course of therapy It is our belief that, when medical treatment is failing, these patients should be subjected to the same surgery, namely, ileostomy and subsequent colectomy, as those who had no disease prior to the onset of their ulcerative colitis

Conclusions

I believe that patients with amebic dysentery may, even after intensive antiamebic therapy, develop a nonspecific type of ulcerative colitis which should be managed as such It is erroneous, on the basis of the original diagnosis, to continue on antiamebic therapy alone without positive proof of amebiasis or the benefit of intermittent proctosigmoidoscopy

537 Delaware Avenue

Discussion

Joseph Felsen, M D, *New York City*—Dr Bernhoft has directed attention to an important point in the therapy of chronic ulcerative colitis Do not persist in the use of amebicides in patients who have had amebiasis but who present the clinical picture of chronic ulcerative colitis He carefully refrains from drawing any conclusions as to the relationship between the two diseases This leads me to offer a few practical suggestions regarding their etiology, pathology, and differential diagnosis

Etiology—We have repeatedly noted the development of chronic ulcerative colitis in previously healthy individuals from the acute initial stage of bacillary dysentery within nine to twelve months. In the Jersey City epidemic of 1934, this occurred in 10 7 per cent of the patients This observation has since been confirmed by other investigators Bacillary dysentery and amebiasis have identical epidemiologic backgrounds, so that it is not surprising that a certain number of these patients have both infections and subsequently develop chronic ulcerative colitis The Endameba histolytica is present as a purely commensal agent, having nothing to do with the development of chronic ulcerative colitis. In tropical regions and among mental delinquents practicing coprophagy, bacillary dysentery, salmonella disease, and amebiasis may occur in the same individual. I have never seen chronic ulcerative colitis follow any disease other than acute bacillary dysentery It has taken approximately fifteen years for the opponents of this view to admit that some cases, but not all, are due to bacillary dysentery No proof of other cause has ever been offered comparable to that for bacillary dysentery To those who doubt the relationship, I suggest better recognition of the atypical forms of acute bacillary dysentery, follow up of the acute cases for one year, and careful investigation of the initial phase in patients first seen in the chronic stage

In my last series of approximately 900 patients with chronic ulcerative colitis, approximately five per cent have exhibited E histolytica. In this group, amebicide therapy has usually resulted in disappearance of the protozoan parasite but without discernible effect on the chronic ulcerative colitis.

Pathology—Amebiasis is usually limited to the colon and exhibits characteristic discrete ulcers with hemorrhagic halos and undermined edges The intervening mucosa is normal The parasites are found in the floor of the ulcer, submucosa, or submucosal lymphatics They may be demonstrated readily by crypt aspiration wet smear In chronic ulcerative colitis the mucosa is granular and usually presents linear, geographic, or serpiginous ulcers with intervening polypoid mucosa Except in the rare segmental types, no part of the mucosa is free of inflammation with infiltration by polymorphonuclear cells This may extend to or even through the muscularis Crypt aspiration wet smear invariably yields a purulent cytology in the mucosal exudate

Differential Diagnosis—Demonstration of the typical ulcers and cysts or trophozoites in amebiasis may be contrasted with the diffusely inflamed mucosa, irregular ulcers, and characteristic purulent cytology of chronic ulcerative colitis The latter also exhibits diagnostic roentgenographic findings such as lumenal stenosis, defects in mucosal pattern, and rigidity and thickening of the wall with loss of haustrations due to reparative fibrosis A purulent cytology of the mucosal exudate is an absolute contraindication to using a rectal or sigmoidal segment for re-establishing continuity following subtotal colectomy If more surgeons knew this, there would be fewer instances of infection spreading from infected rectum to healthy ileum

In conclusion, I wish to make a plea for the control of acute bacillary dysentery It is my conviction that, with successful control, we shall no longer see cases of chronic ulcerative colitis and its close relative, ileitis

RECENT ADVANCES IN ANTIBIOTIC THERAPY

SELIG STRAX, M D , and LOUIS T WRIGHT, M D , New York City

(From the Department of Surgery, Harlem Hospital)

THE discovery of penicillin and streptomycin did not lead to complacency It served as a challenge to laboratory and clinical investigators and stimulated the development of new antibiotics of microbial, vegetable, or animal origin Of the 150 substances which have been identified and described, only a few are of established clinical significance or offer promise of usefulness as systemic therapeutic agents

Aureomycin*

Aureomycin, which was discovered by Duggar and his associates of the Lederle Laboratories, is derived from a mold of the species Actinomyces—in this case Streptomyces aureofaciens [1] It exhibits remarkable versatility as an antibiotic, and studies indicate that it exerts bacteriostatic or bactericidal activity against a wide spectrum of both gram-negative and gram-positive bacteria, including penicillin-resistant and streptomycin-resistant organisms It is highly effective against most strains of rickettsia, as well as viruses of psittacosis and lymphogranuloma venereum.[2,3] On a weight basis, aureomycin appears to be less effective than penicillin against most of the coccal organisms, but it compares favorably with streptomycin against most gram-negative bacilli [4] In solution it has a low pH, and activity is reduced in an alkaline medium or in the presence of human serum. Unlike penicillin, there is no significant tendency to the development of bacterial resistance, even after months of treatment [5] The marked antibiotic effect exhibited by aureomycin against Escherichia coli and other intestinal flora as well as gram-positive bacteria indicates that it is valuable in a variety of diseases associated with the gastrointestinal tract

We have employed aureomycin with success in the preoperative preparation of patients In patients awaiting gastric surgery, aureomycin in doses of 250 to 500 mg is left in the stomach following each gastric lavage Indications are that aureomycin will apparently reduce the pathogenic bacteria of the intestinal tract more rapidly and, seemingly, as effectively as the insoluble sulfonamides, while permitting resection of small and large bowel lesions with greater safety Much additional work is needed to prove this point beyond peradventure The only unfavorable report comes from Pulaski, who used aureomycin in a series of three cases and found that 250 mg of aureomycin four times daily reduced the number of E coli in the stool but did not affect other gram-negative or gram-positive organisms [6]

An added advantage of aureomycin over other drugs or antibiotics, used in the control of peritonitis in relation to surgery of the gastrointestinal tract, is that it can be administered intravenously, and thus, high blood levels can be obtained in patients who may be gravely ill and cannot take medication by mouth or whose absorption from the gastrointestinal tract is impaired

In regional ileitis our experience is limited to two cases Both had had an ileotransverse colostomy with exclusion of the terminal ileum. Subsequent to their operation, these patients suffered recurrent attacks of diarrhea which were controlled by aureomycin One patient received 50 mg of aureomycin daily intramuscularly and the other a 250-mg capsule orally twice a day to maintain an average of two daily bowel movements

We have treated two cases of postcholecystectomy syndrome, both with chills and severe pain They have obtained satisfactory relief with aureomycin, and it is suggested that cholangitis may play as important a role in this condition as does spasm of the sphincter of Oddi The unusually high concentration of aureomycin in the bile (8 to 16 times concentration in serum) makes it particularly adaptable to the treatment of infections of the biliary system [7]

A detailed study was made of the treatment of acute peritonitis with aureomycin in 52 unselected patients at this hospital These included 35 cases of appendical peritonitis, 16 cases of perforated duodenal ulcer, and one perforated sigmoid diverticulum The over-all mortality rate was one half that of a similar group treated postoperatively in this hospital in 1946 and 1947 with penicillin, sulfadiazine, and a few cases in which streptomycin was used These results are reported in detail in a paper that is in press [8]

Since the above was submitted for publication, we have treated several additional cases of peritonitis with aureomycin with no deaths At the present time the dose schedule used in the treat-

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* Aureomycin was supplied through the courtesy of the Lederle Laboratories Division of the American Cyanamid Company

ment of peritonitis is 500 mg of the drug dissolved in 500 cc of 5 per cent glucose in distilled water, administered as an infusion twice daily when the decision to operate is made After operation, as soon as Wangensteen suction can be safely interrupted, the aureomycin is administered in doses of 500 mg twice daily orally, and this is continued as long as is necessary

In June 1948, we treated a patient with severe pyoderma gangrenosum complicating intractable nonspecific ulcerative colitis [9] The patient had had a permanent ileostomy performed in November, 1947, with little change in the extensive ulcerating lesions of the left upper and lower extremities With small doses of aureomycin intramuscularly, the skin lesions healed rapidly, and the drainage of pus and blood from the distal ileostomy stoma and from the rectum ceased The results in the colonic condition in this case were sufficiently impressive to warrant further study of the clinical effects of aureomycin in chronic ulcerative colitis

In a preliminary report from this hospital which has been accepted for publication there is a number of "active" idiopathic ulcerative colitis cases which were treated with aureomycin with dramatic results in the cases of the so-called "active" colitis [10] In these cases, there was a noteworthy reduction of the number of daily stools and a disappearance of blood The aureomycin in these cases is used orally in a dose of from 1 to 2 Gm a day in divided doses Additional cases of ulcerative colitis, observed since this paper was prepared, confirmed our original observations and convinced us that aureomycin is a valuable drug in this condition, superior to sulfonamides and all drugs previously used In fact, we have discontinued the use of all sulfa preparations in this condition

Herrell and Heilman studied the concentrations of aureomycin in body fluids and organs [7] They conclude that aureomycin is excreted slowly and that the antibiotic remains in the blood considerably longer than most previously available antibiotic substances It traverses the blood-brain barrier and appears in the cerebrospinal fluid in therapeutic concentrations Studies on placental transmission indicate that aureomycin diffuses through the placenta and is available to the fetal circulation Likewise, diffusion occurs into the pleural fluid Aureomycin is concentrated in the biliary system and is excreted in the bile in concentrations 8 to 16 times that in the serum Large amounts of aureomycin are constantly excreted in high concentration in the urine of patients receiving this antibiotic It has also been found in the liver, kidney, spleen, and lung

The efficacy of oral administration and the safety of adequate dosage make possible the use of aureomycin to achieve prompt antibiotic effects against an unusually wide spectrum of susceptible organisms

In a group of seriously ill infants at Sydenham Hospital in Baltimore, several patients with staphylococcal pneumonia and septicemia failed to respond to penicillin, yet yielded promptly to aureomycin [11] Aureomycin was used successfully in cases of Streptococcus fecalis endocarditis, pneumococcus meningitis, and influenzal B meningitis

In a study of primary atypical pneumonia, Schoenbach reports prompt remission within twenty-four to seventy-two hours [12] All cases in the series had positive tests with Streptococcus MG agglutinins and cold agglutinins

Aureomycin has been used successfully in the treatment of lymphogranuloma venereum, granuloma inguinale, lues, and psittacosis [2,3,13,14]

Aureomycin is the drug of choice in serious urinary infections In therapeutic doses, it appears in the urine in concentrations of 50 to 250 micrograms per cc [7] Schoenbach reports several cases of Coli aerogenes and Streptococcus fecalis pyelonephritis which failed to respond to penicillin, streptomycin, and sulfadiazine-thiazole but yielded to aureomycin [11] Aureomycin is probably superior to chloromycetin because the latter may permit the growth of gram-positive organisms which are frequent secondary invaders

Aureomycin is usually given in doses of 500 mg (2 capsules) every six hours the first day A maintenance dose of 250 mg every six hours may then be given over prolonged periods In seriously ill patients and in those who cannot swallow capsules, it may be administered intravenously, in doses of 200 to 1,000 mg dissolved in 500 cc of 5 per cent glucose in distilled water in one hour Because of the acidity of aureomycin, intramuscular injections are irritating

Aureomycin is remarkably nontoxic, whether given parenterally or orally [4,15] The only manifestations of intolerance have been occasional nausea and mild diarrhea The nausea is frequently relieved by the addition of aluminum hydroxide, and the diarrhea has never been of clinical significance As yet, allergic reactions to aureomycin have not been reported Aureomycin has been given to some patients for weeks or months with no toxicity noted

Chloromycetin

Chloromycetin was isolated by Ehrlich and his coworkers at the Parke-Davis Laboratories from a mold isolated by Burkholder of the Osborn Botanical Laboratory, Yale University, from field soil collected in Venezuela [16] The mold has been named Streptomyces venezuelae, the

crystalline antibiotic isolated from the filtrate of this mold has been named chloromycetin in recognition of its source and high content of nonionic chlorine which characterizes the molecule It can be prepared synthetically

Laboratory studies indicate that chloromycetin inhibits the growth of some pathogenic bacteria in high dilutions, particularly Escherichia coli, Klebsiella pneumoniae, Proteus organisms, Salmonella schottmuelleri, and Shigella paradysenteriae.[16]

In contrast to aureomycin, chloromycetin is a neutral compound In distilled water it withstands boiling for five hours Although relatively insoluble in water, it is well absorbed from the gastrointestinal tract After a single oral dose appreciable amounts of the drug are demonstrated in the blood and urine within from thirty minutes to eight hours [17] With repeated dosage effective blood concentrations may be sustained

At the present time clinical reports on chloromycetin are limited to its use in typhoid fever, epidemic typhus, scrub typhus, and Rocky Mountain spotted fever Experimental studies among other bacterial and viral infections, including atypical pneumonia, psittacosis, and lymphogranuloma venereum, indicate the possibility of adapting these findings to clinical use [18]

Woodward has treated 21 cases of typhoid fever, ten of these in Malaya [19] In all cases temperatures became normal, and blood cultures sterile for E typhosa within five days, most of them within twenty-four hours Five of these cases relapsed, and the recurrent infections responded promptly to a second course of chloromycetin. Woodward also treated several cases of typhoid fever with aureomycin with prompt sterilization of the blood but a slower defervescence The response to chloromycetin is judged to be more dramatic and more lasting

In the treatment of rickettsial diseases aureomycin and chloromycetin present almost identical results and are equally effective Schoenbach believes that rickettsia grow in the tissues impairing oxygenation of cells [11] The paranitrophenyl group in chloromycetin protects the cell from the rickettsia rather than having a direct affect on the rickettsia

Numerous cases of epidemic typhus, scrub typhus, Rocky Mountain spotted fever, and Q fever have been treated with aureomycin or chloromycetin with a return of temperature to normal within forty-eight hours The rash disappears rapidly, and the Weil-Felix reaction and complement fixation tests rise during the convalescent period, frequently after the patient is discharged Complications, such as pneumonia, myocarditis, and parotitis, are rarely seen All investigators are agreed that both aureomycin and chloromycetin are much more effective and dramatic in the treatment of rickettsial diseases than is para-aminobenzoic acid

In two series of patients with epidemic typhus symptoms regressed completely within three to five days, many within thirty-six hours of the commencement of chloromycetin therapy [20 21] Several desperately ill patients responded dramatically

In 25 cases of scrub typhus recovery was also complete in all cases with temperature returning to normal in an average of thirty-one hours after beginning of treatment [22]

Pincoffs reported 15 cases of Rocky Mountain spotted fever treated successfully with chloromycetin [23] All temperatures fell to normal within three days of the commencement of treatment

In the treatment of brucellosis with positive blood cultures for Brucella abortus, suis, or melitensis, treatment with aureomycin or chloromycetin is equally effective and vastly superior to the combined streptomycin and sulfadiazine treatment

Aureomycin has been found to be superior to chloromycetin in the treatment of tularemia

Chloromycetin is given in doses of 50 mg per Kg the first day, then 0 5 Gm every four hours thereafter Because of its low solubility, propylene glycol has been used as a menstruum for parenteral administration The diluent has produced anemia, not attributable to chloromycetin, and parenteral use is not advised at this time

Chloromycetin is well tolerated when given orally, and occasional vomiting is the only toxic symptom noted All reports up to this time deal with the use of chloromycetin over relatively short periods of one to two weeks Whether more prolonged use will provoke toxic symptoms is as yet unknown [22] The use of chloromycetin parenterally is not advised at this time Because of its low water solubility, the diluent used has been propylene glycol, and this has produced anemia in animal experiments

Polymyxin

Polymyxin is a polypeptid derived from Bacillus polymyxa and is remarkably effective against a variety of gram-negative organisms It was discovered simultaneously in America and in England, and types A, B, C, and D have been described Schoenbach believes that polymyxin is much more effective than streptomycin against gram-negative organisms, especially in delayed treatment [24] The dosage is 0 8 mg per Kg of body weight every six hours Two thirds of the ingested dose is excreted in the urine within twenty-four hours Some patients show proteinuria, oliguria, a fall and fixation of specific gravity, and tubular casts in the urine during pro-

longed treatment with polymyxin Several cases of serious infection with Pseudomonas aeruginosa (pyocyaneus), Aerobacter aerogenes, Brucella abortus, and Hemophilus pertussis (patients under one year of age) were treated successfully with polymyxin The drug is so toxic, however, that benefits are difficult to evaluate, and it has not been released for general use

Other Antibiotics

Other antibiotics which have aroused considerable interest include streptothricin, now in discard because of its residual toxic effects, bacitracin, and tyrothricin, whose use is confined to local or topical therapy because of systemic toxicity (nephrotoxic) Bacitracin was isolated in 1945 by Meleney from a strain of B subtilis In concentration of 500 units per cc in sterile isotonic sodium chloride solution or in ointment of similar potency, it may be used successfully in the treatment of superficial pyogenic lesions and ulcers and dermatologic lesions For local infiltration in the treatment of carbuncles, the solution may be injected into the base of the lesion It is not destroyed by blood, pus, or necrotic tissue

Summary

New antibiotics have been isolated that have proved to be valuable systemic therapeutic agents The most important of these antibiotics are aureomycin and chloromycetin

In our hands aureomycin has exhibited bactericidal activity against a very wide spectrum of bacteria, rickettsiae, and viruses It has replaced penicillin and the sulfonamides in the treatment of coccal infections and has supplanted the use of streptomycin in all bacillary infections except those of the tuberculosis It is most valuable in the preoperative and postoperative sterilization of the gastrointestinal test in gastric or intestinal surgery and in the treatment of peritonitis, chronic nonspecific ulcerative colitis, and serious urinary infections

Chloromycetin is the drug of choice in the treatment of typhoid fever Chloromycetin and aureomycin are equally effective in treatment of rickettsial infections and brucellosis Chloromycetin is probably also effective in the sterilization of the gastrointestinal tract preoperatively and postoperatively

Aureomycin may be given orally or intravenously in doses averaging 250 mg every six hours Chloromycetin should be used orally only in approximately double the dosage of aureomycin

Both aureomycin and chloromycetin have exhibited no important toxic manifestations

Polymyxin is remarkably effective against gram-negative organisms but has exhibited nephrotoxic effects that have held up its release for general use

The use of bacitracin and tyrothricin is limited to the local treatment of pyogenic infections

Discussion

Erwin Neter, M D, *Buffalo*—Drs Strax and Wright have given an excellent review of the present day status of the recently introduced antibiotics and have made important observations on the efficacy of aureomycin in a variety of infections Indubitably, the great importance of the discovery of aureomycin and chloromycetin lies in the fact that they are effective against rickettsiae and the larger viruses (atypical pneumonia, psittacosis) which are closely related to the rickettsiae Unfortunately, so far as it is known at the present time, these antibiotics are ineffective against the small viruses, such as the influenza and the poliomyelitis viruses

That aureomycin reduces the number of bacteria in the gastrointestinal tract and thus aids greatly in the preparation of patients undergoing surgery has been shown From the data obtained it is evident that aureomycin is of value in the treatment of acute peritonitis and of promise in idiopathic ulcerative colitis We, too, have observed that fecal material obtained from a few patients receiving aureomycin in large doses by mouth failed to show growth on bacteriologic examination However, it should be stressed that the antibiotic was not neutralized and that the negative results may have been due to the growth-inhibitory effects of the drug present in the specimen. On the other hand, we had the opportunity to follow two patients who were suffering from Salmonella infection and who continued to harbor this pathogenic microbe in the intestine during and following the administration of both aureomycin and chloromycetin in doses up to 500 mg per Kg of body weight Similar observations have been made on typhoid carriers being treated with chloromycetin

Originally it was stated that aureomycin is ineffective against Bacillus pyocyaneus and various members of the Proteus group Very recently, however, Parks from Washington, D C , and Rutenburg and Schweinburg from Boston have shown that this antibiotic is effective against some but not all strains belonging to these species and can be used to advantage in the treatment of urinary tract infections [a b] We had the opportunity to observe a patient with chronic pyelonephritis caused by Bacillus pyocyaneous The infection was of such severity that 1 ml of urine contained more than 10,000 organisms All attempts to overcome this infection by means of sulfonamides, penicillin, streptomycin, and mandelic acid failed Administration of aureomycin had dramatic results Actually, the number of organisms was first reduced to 115 colonies per ml , and subsequent cultures have become sterile It seems possible that the drug might have been less effective had the infection been localized in some other part of the body, since the concentration of aureomycin is so much greater in the urine than elsewhere In this

connection it may be of interest to discover at what concentration aureomycin and chloromycetin are present in the various parts of the gastrointestinal tract If the concentration of the antibiotic should be lower in the large intestine, one may consider the use of the drug in such a form as to preclude its absorption from the small intestine and thus obtain higher concentration in the colon

Although but a short period of time has elapsed since the discovery of aureomycin and chloromycetin, it has become clear that these antibiotics represent powerful tools in the hitherto unsuccessful fight against certain infections Much research remains to be done to determine the relative merits of these new antibiotics and also to what extent they can be used in conjunction with other chemotherapeutic agents and antibiotic substances to obtain still better results

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We wish to thank Dr Solomon Weintraub director of pathology and Dr William I. Metzger for their helpful cooperation.

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EVALUATE RESULTS OF SURGERY FOR HIGH BLOOD PRESSURE

A study of 100 patients who underwent sympathectomy for high blood pressure shows that five years after the operation results were favorable in only about 20 per cent, according to Kenneth A Evelyn, M D, and Stewart R Cooper, M D, Montreal, Canada, and Fred Alexander, M D, Boston, Massachusetts

In this surgery, nerves of the sympathetic nervous system, which control the organs that function unconsciously and which may produce involuntary constriction of the blood vessels and other effects, are cut.

The doctors reported on their study, made at the Massachusetts General Hospital, Boston, in the June 18 issue of the *J A M A*

Five years after the operation, blood pressure was reduced to normal in 8 per cent of the patients, and significant reductions, although not to normal, were noted in an additional 13 per cent.

Results in the remaining 79 per cent were unfavorable In 52 per cent of the group, blood pressures were not significantly lower than the preoperative levels, and 27 per cent of the patients were dead

"Comparison of these results with those at the end of a two-year follow-up shows that the results of sympathectomy tend to become less favorable as the length of the follow-up period increases

"However, it seems certain that the results of sympathectomy in the most favorable cases are valuable enough to justify continued interest in methods which will improve the selection of cases and in the development of technics which will increase the effectiveness of the operation"

COLONIC DYSFUNCTION

SARA M JORDAN, M D , Boston, Massachusetts

(From the Department of Gastroenterology, Lahey Clinic)

A DISCUSSION of colonic dysfunction presupposes a well-recognized, basic understanding of colonic function Clinical precepts and practices during the past half century have reflected a complete lack of such understanding No organ of the body has been so subjected to abuse and injury as has the colon, whose finely adjusted neuromuscular mechanism and secretory apparatus have been wantonly disturbed by external interference administered under a complete misconception of the design for function provided by nature

The conception that the colon was a channel for debris—a cloaca, a sewer which had to be cleansed as far as it is possible to cleanse a sewer—has pervaded the minds of physician and patient, resulting in the inevitable medical slogan, "keep your bowels open," and in the anxious preoccupation of much of humanity on the regularity and completeness of the daily bowel movement and its importance to the life, health, and happiness of the individual

Laboratory research has given us many clues to the design of nature in colonic function The investigations of Cannon, Hurst, and Alvarez demonstrated that in the normal individual chyme reached the ileum in three to four hours, that the ingestion of food produced an ileocecal reflex which caused chyme to pass from the terminal ileum into the cecum, that for propulsion through the colon mass movements occur after prolonged periods of stasis, the purpose of which could only be for absorption, and that excretion of material might take from forty-eight to seventy-two hours From all these observations, the absorptive as well as the propulsive function of the colon was revealed, and it has been recently recognized that the right colon retrieves valuable fluid for the body, while the left colon by its secretion of mucus protects the mucosa from injury from material which physiologically should be semisolid

Although investigations in colonic physiology lag behind those in gastric and small intestinal physiology, there has been some recent work of interest, stimulated chiefly by an effort to reveal facts of importance in dealing with that most distressing disease of the colon—ulcerative colitis Peristaltic activity in the rabbit's colon was studied by the observation of reactions to the placing of dry scybala into the exposed descending colon [1] Antiperistaltic as well as peristaltic activity, as evidenced by blanching proximal and distal to the moving scybala, and movement of the scybala orad as well as caudad was noted The speed of the peristaltic activity was found to exceed that of the antiperistaltic activity by 4 1 Severing the spinal cord destroyed antiperistaltic activity, indicating that inhibition of antiperistaltic activity may come from central impulses, an interesting correlation of experimental to clinical observation It was also noted that in a highly irritable segment there was temporary circular muscular contraction on both sides of the scybalum with slowing of peristalsis, whereas in the normally irritable segment there is a constant distal relaxation with normal progression of peristalsis Thus, there is experimental evidence that abnormal central impulses, by removing antiperistaltic activity, derange motor function and that incoordination in the relation of the two sets of musculature in the colon causes constipation.

Other recent investigations have been directed toward study of mucosal changes in human patients under artificially applied stress situations and under the influence of chemical factors [2-4] Normal subjects have been placed under artificially produced stress conditions by placing their hands in ice water and applying a screw clamp to the head, observations being made under direct visualization of motility, vascularity and secretion in the colon A marked increase in motility, vascularity, and secretion was observed under such stress The changes in the colon were manifest only when the total bodily reaction was one of distress and were not a response to applied stimuli per se

Preliminary work in the investigation of conditions which affect the blood flow in the colon has, up to the present, consisted of perfecting a satisfactory instrument to measure changes of temperature in water contained in a closed system which has been inserted into the colon with an attached thermocouple leading to the outside [5] The research work involved in the perfection of this instrument has resulted in some observations on vascular dynamics and blood flow changes in the colon wall in animals under conditions of stress, excitement, and illness, all of which work has great promise for the better understanding of colonic dysfunction, both with and without organic colon disease

Presented by invitation at the 143rd Annual Meeting of the Medical Society of the State of New York Buffalo Section on Gastroenterology and Proctology May 5, 1949

Enzymatic activity has likewise received considerable attention in its relation to colonic function, here again chiefly for the purpose of a better understanding of the nature of ulcerative colitis There has been, however, some indication that abnormal chemical changes take place between normally secreted materials and the cells of the colon, probably a change in pH [6]

The proteolytic activity of extracts of stools of normal patients, those with irritable colon and those with diseases including ulcerative colitis, was studied Stools were emulsified with distilled water, centrifuged, and the supernatant fluid passed through a special filter to remove all bacteria and foreign agents The irritable colon substrate showed increased mucin-digesting ability but to a lesser degree than that of ulcerative colitis

The use of sympathomimetic and parasympathomimetic drugs has confirmed our knowledge of the effects of autonomic nerve stimulation on the colon The effect of autonomic ganglion block by the use of tetra-ethyl-ammonium chloride has been shown to be a marked decrease in motility, and when 200 mg was given intravenously, there was a complete inhibition of colon motility for as long as sixty-five minutes [7] Thus support is added to the theory of neurogenic origin of rhythmic intestinal contractions

These investigations sustain our clinical observations and experience with the physiology of the colon Hence, we have every reason to regard the colon with the same respect, even awe, with which we regard the artful and admirable devices by which the heart, the lungs, the kidneys, and the upper gastrointestinal tract carry out their functions We know that coordination of innervation and muscle and secretory glands is responsible for normal function and that normal function is subjectively expressed by an absence of sensation in the abdomen, except for an urge to defecation As a corollary to the respect which we should have for the neuromuscular coordination responsible for normal function, we should, of course, have misgivings about any unnecessary interference with it, a matter to which later reference will be made

The incidence of colonic dysfunction is unquestionably high A common estimate is that it occurs in about 40 to 55 per cent of all cases presenting themselves with abdominal symptoms in gastroenterologic clinics The symptomatology varies in intensity from mild to severe, and in those with severe symptoms there may even be a resulting disability The clinical importance of the conditions is, therefore, indisputable

The causative factors may be broadly classified in two groups first, the psychogenic factors of two types—either the occasional psychic disturbance, such as a sudden fright or temporary emotional crisis with resultant temporary digestive dysfunction, or the sustained pattern of psychic disorder, such as stress and strain and nervous fatigue resulting in an habitual colonic dysfunction—and second, the abuse of the colon with food, drugs, and chemical irritants Not infrequently, these factors may be so intertwined that treatment directed toward both factors is necessary

The diagnosis of colonic dysfunction is made by both negative and positive findings the former by ruling out organic disease and the latter by finding certain objective evidence of functional disorder It is essential that organic disease be ruled out for both the safety and the reassurance of the patient, the latter a necessary adjunct to therapy

Colonic dysfunction characterizes the condition whose nomenclature has included such terms as spastic colitis, mucous colitis, functional colitis, and finally the irritable or unstable colon The adjective unstable is aptly descriptive of the condition since instability of neuromuscular coordination of the colon is the basic physiologic defect Peristaltic activity may be slowed or accelerated, and neuromuscular contractions and relaxations, as well as secretions, increased or decreased in a disorganized way The orderly function of this propulsive, absorptive, and secreting organ is thus deranged to such a degree that distress symptoms replace the normal abdominal unconsciousness

These symptoms are constipation, diarrhea, distention, and distress, varying in intensity from mild discomfort to colicky pain While such distress may be localized in one of the abdominal quadrants or in the midabdomen, it is characteristically shifting in location, thus differentiated from the well-localized pain of peptic ulcer, appendicitis, cholelithiasis, or diverticulitis Both distention and distress have usually no definite time relation to food intake in their occurrence, although there is often a definite relationship of the occurrence of both these symptoms to the kind of food eaten There is also not infrequently a time relationship of onset of symptoms to bowel movement, usually with relief of symptoms following defecation

In general, the foods mentioned by patients as offending are the notoriously indigestible ones, all fried foods, pork, oily fish, and some of the vegetables and fruits which are easily digested by the normal digestive tract, e g , tomatoes, apples, grapefruit, and always melon Ice cold food and drink also precipitate symptoms There is a practically uniform listing of such foods

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by patients with irritable colon Certain patients also involuntarily ascribe distress to smoking and overindulgence in alcohol, and in this group hypermotility of the small intestine is usually observed in association with irritable colon

Constipation and diarrhea, either alone or alternately, are part of the symptomatology Cases with diarrhea are sometimes less tractable than those with constipation, although objective x-ray evidence is the same for both forms of dysfunction and not distinctive for either type

The word constipation in a patient's history must always be elucidated, since it is not infrequently used to indicate self-abuse with laxatives When a patient says he has for years required some form of laxatives, it is certain that he now has a bowel fatigue with spasm or atony, to overcome which he requires more and stronger laxatives This condition was probably initiated by injudicious and unnecessary interference with the function of the colon and not infrequently was begun on the advice of a physician during an acute or chronic illness following surgery or childbirth or as part of a routine for various types of symptoms Commercial advertising and drugstore and neighborhood advice contribute their share to this vicious cycle It is, however, noteworthy that in recent times the "mildness" of the laxative is emphasized, indicating that there is a wholesome reaction at least against the harshest form of colon abuse It is of literary interest to note also that back in the days of Chaucer, such a reaction was echoed in the following lines, spoken by Chantacleer in the Nonne Prestes Tale

And I say forthermore
That I ne set by laxatifs no store,
For thay be venemous, well know I it,
I them defye, I love them never a bit

The history of longstanding abuse must, of course, be differentiated from that of a recent change in bowel habit, which is a typical symptom of colon malignancy in 80 per cent of cases Cases with such a history require a most painstaking investigation to rule out organic disease

Dysfunction in the form of diarrhea may be congenital or acquired at an early age, in such cases it may be constant or induced at times by psychogenic or physical irritants It may also be a result of an acute enterocolitis, recurring with remissions In all cases, while by no means intractable, it is, as stated, less easily manageable than constipation

Secondary symptoms in this condition are nausea and vomiting and resultant malnutrition and, in some cases of diaphragmatic splenic flexure, palpitation and dizziness Extrasystoles are induced by distention of the splenic flexure beneath the diaphragm These symptoms are relieved with an improvement in colonic tonus and irritability

Adequate study to rule out organic disease of the digestive tract reveals positive objective evidence of colonic dysfunction The physical examination discloses in most cases of irritable colon tenderness to palpation over the course of the whole colon and often a tender, ropy sigmoid which can be rolled under the palpating fingers Digital examination often reveals anal spasm, especially in those cases with cathartic abuse Proctoscopy and sigmoidoscopy often show increased redness and glariness of the anorectosigmoidal mucosa and, at times, excessive secretion of mucus The x-ray examination shows two typical findings One is in the film showing the progress of the barium meal, taken three hours after a barium meal, in which there is considerable barium residue in the stomach with the head of the meal well on in the transverse colon or even in the descending colon or rectum The other is the evidence furnished by the barium enema examination made without preparation This lack of preparation is necessary since purging with laxatives or the irritating enema, usually prescribed as preparation for colon visualization, may produce temporary irritability in even a normal colon and painfully exaggerates the condition in an irritable colon Certain criteria of colon filling with the enema are used as normal, and deviations are considered abnormal With a standard head of pressure for the enema can (usually about 2½ to 3 feet) the time of filling is from two to four minutes from anal orifice to cecum, and during the passage of the barium the normal colon is gradually distended, showing haustral striations of such depth that the diameter of the colon varies from 2 to 3 inches in the descending portion to 4 to 5 inches in the right colon The frequency of haustrations is less in the descending than in the transverse and right colon With the filling of the colon, the patient experiences a sensation of filling which becomes a mild urgency for defecation when the entire colon is filled After the evacuation of barium, the left colon and rectum are normally well contracted, while the right colon, only slightly contracted, still contains a considerable amount of barium

Dysfunction, by these standards of normal function, is manifested by (1) excessive speed or excessive delay in the time of filling, (2) excessive width and smoothness or excessive narrowing and number of haustral markings, (3) excessive distress experienced by the patient or complete absence of sensation of filling, and (4) exaggerated or deficient emptying visualized after evacuation

The atonic redundant colon may be so wide and tortuous that the entire abdominal cavity appears to be filled with its visualized coils The pelvic colon is especially often redundant and dilated and may, when filled, occupy the left upper quadrant In other cases the splenic flexure is very high under the diaphragm (Kantor's diaphragmatic flexure), and if this type of flexure is redundant and dilated, it often pockets gas or fecal contents, producing a symptom complex of left upper quadrant distress radiating to the left flank and simulating renal disease These x-ray manifestations indicate an instability of neuromuscular coordination, resulting in excessive or deficient irritability, tonus, and contractility

Stool examination is important in ruling out organic disease—parasitic, inflammatory, or ulcerative—and also in indicating the degree of digestion and absorption accomplished by the digestive tract Since there is a relationship of colonic function to gastric function, an estimate of gastric acidity is at times of value, particularly in achlorhydria cases

The differentiation of colonic dysfunction from organic disease is made first by the study to rule out organic disease, but it must also be noted that colonic dysfunction may occur in association with organic disease Particularly is this the case in gallbladder disease and peptic ulcer, and under these circumstances neither of these conditions can be adequately treated unless the colon dysfunction is also treated It should be mentioned that recurrence of peptic ulcer is occasionally diagnosed when the actual condition is colonic dysfunction, sometimes induced by the treatment of the ulcer and particularly when magnesium and the silicates are used Moreover, the too frequently encountered failures with cholecystectomy for cholelithiasis are usually due to neglect of a concomitant colonic dysfunction which must be treated postoperatively in order to obtain complete relief of preoperative symptoms

Treatment of colonic dysfunction has as its dominant feature physiologic rest In a small group of cases where the causative factor is purely psychogenic and transitory, recognition of this fact by the physician and a clear understanding by the patient of the relationship of mind, emotions, and nervous factors to the behavior of the colon is often adequate therapy However, with sustained psychogenic factors operating as the sole cause but creating habitual dysfunction or when these psychogenic factors are combined with somatic factors such as colonic abuse, there is unquestionable need for somatic treatment Furthermore, in a large group of cases of colonic dysfunction the causative factor is entirely somatic and due to abuse of the colon with chemical or physical irritants—food difficult to digest, excessive alcohol and smoking, and most frequently cathartic abuse

The attainment of the highest degree of physiologic rest for the unstable colon is the keynote of treatment, just as it is for cardiac decompensation. This rest is necessary in degrees varying with the intensity of the symptoms For those patients who have severe abdominal distress and either obstinate constipation or diarrhea, hospitalization is not only a most rewarding measure but often an essential one The duration of hospitalization is usually from ten to fourteen days Complete bed rest and a diet beginning with the blandest types of food furnish the basic essentials of rest for the colon Frequent small feedings of easily digested and absorbed food, such as cream of wheat, milk toast, soft eggs on toast, Melba toast, tea, coffee, warm milk, junkets and custards are first given, and as symptoms subside, gradual additions are made of broiled beef, lamb and chicken, garden lettuce and celery, baked potato, and finally other easily digested vegetables and cooked fruits Orange juice diluted with hot water is the only form of uncooked fruit allowed If these additional foods cause distress, the diet of bland food is resumed and used for a little longer time Antispasmodics, belladonna or some of the synthetic products, and small doses of phenobarbital are used Supplementary vitamins are also valuable Smoking and alcohol are completely omitted Heat is used, both as hot water drunk frequently during the day, and in external application to the abdomen at regular intervals during the day No form of laxative is used, and although there are often several days without a stool, ultimately fecal material will reach the rectum Daily rectal examinations help to provide reassurance for the bowel-conscious patient, and if he is finally unable to expel material from the rectal ampulla, a warm oil retention enema is usually adequate aid toward accomplishing defecation

Colon tone is usually so improved by these procedures that, subsequently, stools begin to occur normally and the dietary increases cause no distention or discomfort

While the discharge diet excludes many foods, particularly all fried foods, pastries, ice cold foods, raw fruits, and certain vegetables, it is, nevertheless, a well-balanced, adequate diet obtainable anywhere without too much inconvenience Certain individuals find it impossible ever to vary it with impunity, while others are able to use a general diet some months or years after the treatment Patients often learn that when under special stress and strain, they must resume the more restricted diet

The oil retention enema and for emergencies a saline enema are held in reserve as needed

For patients with diarrhea, much the same routine is followed, except that it may require a much longer period of time before vegetables or cooked fruits can be added During hospitalization, all stools should be examined in these cases so that organic cause for the diarrhea can be ruled out

Supplementary vitamin therapy may be intensively used, intramuscularly or even intravenously during hospitalization In some cases estrogenic therapy or hydrochloric acid may also be necessary The caloric requirements are estimated according to the stature and weight of the patient and increased nutrition or reduction diets prescribed

For patients with these functional disturbances, there is usually an obvious need for revising habits of life The digestive system is second only to the vascular system as a victim of the turmoil which characterizes modern life, and if, as an offending factor, self-inflicted abuse is added, functional trouble must follow It is, therefore, necessary to neutralize the mad whirl of modern life by restful interludes in the day, week, month, and year Meals eaten in a serene atmosphere, with at least a short period of rest following the midday meal, are measures of great value Easing the burden of digestion by a good choice of food and regularity of meals and, for most individuals, a good schedule of exercise and rest are excellent digestive aids Moderation in alcohol and smoking, and often the complete omission of smoking, are necessary to prevent digestive derangements And finally, noninterference with a system which is as fearfully and wonderfully made as our digestive apparatus is a sine qua non of good function These facts are learned by experience, but by teaching and practicing them, we as physicians can prevent much unnecessary suffering

605 Commonwealth Avenue

Discussion

A. H Aaron, M D , *Buffalo* —In discussing Dr Jordan's presentation it will be interesting to note that many of the contributions and conclusions that she has given were proposed by her long before the experimental physiology and chemistry were done by later workers In other words, she had already premised many of these alterations in function which have since been substantiated by clinical and animal experimentation

This is a most stimulating and helpful situation for all who are working in clinical gastroenterology, as it should give one courage to support and sustain the contention of clinical observations, even though experimental information is not at hand at the time Accurate, well-founded observation based on clinical history, physical examination, and personal radiology by Dr Jordan allowed her to formulate the ideas that she has presented today

Personally, I have no difference of opinion with her contentions I believe that her titling, "Colonic Dysfunction," is a more acceptable term than irritable colon or such She has so thoroughly outlined the situation here that I shall avoid discussing it and devote my time entirely to the phase that is the troublesome factor of the differential diagnosis between colonic dysfunction and organic disease

Unfortunately, here we must call upon so many accessory factors to eliminate organic disease that it becomes a tremendous expense to the patient. Amebiasis has existed endemically in this country in various degrees for a number of years Since World War II it has become the most troublesome diagnostic factor in our practice I do not agree with those writers who say we have failed to recognize the bizarre forms in which it exists I do believe that the active practitioner deprived of laboratory procedures to isolate cysts and motile ameba is justified in the therapeutic test of the administration of emetine hydrochloride 0 03, 1/2 grain hypodermically, daily for six doses without any other medication, and note carefully the results

If, as Dr Jordan has emphasized, constipation is a problem, diarrhea is a much more serious one. Fortunately for us many of the patients she has discussed have had this problem over a number of years It is the patient with the short colon history of whom one must beware, and such a case demands that the following considerations be borne in mind that in the right half of the colon the carcinomatous lesion produces late evidence of obstruction and early evidence of loss of weight and anemia This is due to the liquid content of the bowel in this portion of the colon Obstruction is late On the other hand, carcinomatous lesions involving the left half of the colon are obstructive in nature and produce these signs early with few systemic evidences

From this discussion you and I must take away with us a lesson which I hope does not bore you by repetition—that every patient with colon disturbance must have the following digital examination, sigmoidoscopic examination, examination of the stool for occult blood, and a barium enema Beware of the patient with colon symptoms and a normocytic or macrocytic, hypochromic type of anemia. Carcinoma of the colon is the most favorable field for successful surgery in the gastrointestinal tract

It is my purpose to commend to you the excellent classification, diagnosis, and treatment that Dr Jordan has outlined and presume upon your time to call attention to the importance of the early recognition of carcinoma and the constant awareness of the possibility of amebiasis

Edwin Boros, M.D , *New York City* —In the realm of colonic disorders, there exists a most formidable and troublesome ailment—the so-called "irritable colon" To any internist or gastroenterologist the establishment of this diagnosis

bespeaks the existence of a condition which requires much effort in its handling

While at the outset the negative physical, laboratory, x ray, and sigmoidoscopic examinations may appear to subdue the importance of the symptoms at hand, the patient's lack of response to treatment soon conveys the problem which confronts one Optimism fades into doubt and frequent disappointment as the patient's complaints persist, despite every effort for their control

Those afflicted with this ailment complain of generalized abdominal soreness, accompanied, to a greater or lesser degree, by alterations of bowel motility At times a severe grade of diarrhea is experienced, at other times marked constipation and gaseousness Repeated detailed studies may yield nothing further than signs of rapid emptying of the colonic content There may be considerable delay in evacuation X-ray studies frequently demonstrate spasticity of the bowel

The condition does not seem to be particularly complicated and by all reasoning should be easy to control. A dietary routine is instituted, various antispasmodics and sedatives are resorted to, and here and there some satisfaction and encouragement becomes evident In many instances, however, the symptoms are more unyielding Disappointment ensues, often to the point of frustration Psychotherapy is then resorted to with variable success in the alteration of this pattern

It is important to recognize that an irritable bowel is a stubborn ailment, not readily controllable, and one that requires and taxes the efforts and resourcefulness of both patient and physician alike

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USEFULNESS OF CONTACT LENSES IS LIMITED

Contact lenses will not take the place of spectacles in most cases in which ordinary eyeglasses give serviceable vision, according to Conrad Berens, M.D, New York City, member of the American Committee on Optics and Visual Physiology

Writing in the June 18 issue of the *Journal of the American Medical Association*, Dr Berens says

"During the last few years considerable progress in the manufacturing and fitting of contact lenses has taken place in the United States Not only are contact lenses now used for conditions which spectacle lenses will not correct, but many persons wear these lenses for cosmetic reasons, as well as for safety in certain sports and occupations

"Despite the recent avalanche of commercial advertising, contact lenses will not take the place of spectacles in most cases in which ordinary eyeglasses give serviceable vision. In these cases contact lenses may be a useful adjunct to spectacles, but they do not enable most persons to discard their glasses completely

"The largest group of aspiring contact lens wearers are those who have a psychologic aversion to wearing spectacles For such persons contact lenses may be a great boon. However, the public should not be oversold on the use of contact lenses Some manufacturers of contact lenses have misused the public vanity through advertising unwarranted claims for their products and their services"

Dr Berens bases his conclusions on an investigation of contact lenses conducted by the American Committee on Optics and Visual Physiology in which certified specialists of the American Board of Ophthalmology were queried on their experience concerning results in the fitting of contact lenses

Among complaints concerning the lenses most frequently mentioned by the 575 physicians who replied were the limited time that most patients can tolerate wearing the lenses, clouding of the solution used in wearing the lenses, and that the lenses are too expensive and many patients discard them.

The Committee recommends that the prescribing and fitting of contact lenses by technicians not properly licensed under state or national laws should be prohibited

Cases of eye injuries, eye ulcers, and loss of an eye from clumsy technic in fitting the lenses have been reported

ILEOJEJUNITIS

BURRILL B CROHN, M D , New York City

ILEOJEJUNITIS is an inflammatory granulomatous disease of the small bowel In many ways it is closely allied to or almost identical with regional or terminal ileitis, at other times the disease appears as an independent manifestation in the upper reaches of the small intestine with a clinical picture, in general, closely resembling that of regional ileitis [1]

From the standpoint of etiology, the same ignorance which pervades the field of regional ileitis can be extended to cover that of ileojejunitis Specific causative agents are unknown The age group is different from that in regional ileitis, the disease being one afflicting extreme youth with a major incidence in the second and third decades of life After the age of forty only an occasional case is seen The youthfulness of most of the cases of ileojejunitis is very striking

In the present study which covers 38 cases, there were 27 men to 11 women, a ratio of almost 3 1 This is a contrast to regional ileitis where the proportion of men to women is 5 4

The pathologic anatomy of the disease is very much like that of regional ileitis except that isolated jejunal ulcers and isolated areas of granulomatous infiltration are more likely to be noted The inflammatory lesion should be considered under four anatomic and pathologic variations which constitute its form of invasion in the upper alimentary tract (1) as a progressive invasion upward from an older regional ileitis, (2) as a diffuse primary granulomatous infiltration of the entire ileum and jejunum (rarely duodenum), (3) as a localized involvement of an isolated area of jejunum, and (4) as a combined lesion involving upper jejunum and lower ileum, the two processes being entirely discontinuous

Involvement of the Jejunum by Upward Extension from an Older Regional Ileitis —This method of extension in the ileum by widely separated skip-lesions is well known, a still greater extension upward to involve the jejunum may occur in the more severe cases of prolonged duration Such progressive involvements may take place spontaneously early or late in the course of the disease or may occur in the form of recurrences following previous resections or short-circuiting operations

Diffuse Ileojejunitis —This is the most common form and includes a group of 24 out of the total 38 cases under study Here the whole or most of the jejunum is involved either continuously or occasionally in a discontinuous manner by the appearance of "skip-lesions" with interspersed "skipped areas" of normal mucosa In two of these cases the duodenum third and fourth portions, were involved by extension as seen radiologically and as confirmed by operation Presumably, this process initially involves the whole small intestine because, when first seen, the entire small bowel may be involved in this serious granulomatous and cicatrizing enteritis

Isolated Jejunitis —Nine of the total 38 cases in this group fall into this classification This is the most interesting group since the disease involves only isolated areas of the jejunum, usually in the proximity of the fossa of Treitz The lesion may extend to involve 8 to 12 or more inches of bowel wall At other times the lower jejunum is involved with an extension into the upper ileum These incidences of isolated jejunitis have been published by Johnson, by Brewster, by Gendel and Beaver, by Lyons and Garlock [2-5] The recent literature is most interesting in so far as James has presumably published three cases of regional jejunitis with successful resections in situ This last year Husebye reported 14 cases of acute phlegmonous jejunitis as seen by x-ray or by exploratory laparotomy, the lesion being characterized roentgenographically by reduced diaphragmatic movements on one or both sides, by distended loops of small intestine, and by a mucosal relief pattern in the small bowel which was jagged with irregular circular folds and areas of segmental delay [6]

Combination of Isolated Jejunitis Plus a Localized Segment of Distal Ileitis —This was seen three times In this type the two lesions seem to be entirely independent of each other, both lesions tend to be stationary, neither process showing evidences of extension

The clinical picture of ileojejunitis differs from regional ileitis in certain characteristics The tendency to fistula formation is much less marked in the upper bowel, internal fistulas from one loop of small bowel to the other being rare, fistulas to the anterior abdominal wall are most unusual Such fistulas occur usually only as the result of the breaking down of enlarged succulent and infected mesenteric lymph nodes causing abscess formation The abscess points to the anterior abdominal wall and either spontaneously

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ruptures and subsides or by its outward perforation results in an anterior abdominal wall fistula Low-grade fever frequently characterizes the chronic extended course of the disease Diarrhea is present in most of the cases but is mild Severe abdominal pain of the predefecatory type is a constant phenomenon, abdominal masses can rarely be felt Gross hemorrhage and symptoms of obstruction fortunately occur rarely the points of obstruction being usually multiple and partial, rarely singular and complete Loss of weight and secondary anemia are a constant concomitant to the disease process Nutrition is usually poor, dry skin, marked malnutrition and inanition and loss of strength characterize the severe cases Secondary sexual maturation is usually retarded because the disease so regularly is initiated in the prepubertal years of life Not infrequently, hypoproteinemia, edema of the lower extremities, enlarged palpable spleen and clubbing of the fingers denote the marked disturbance and interruption of the normal processes of absorption, metabolism, and nutrition. Serum protein may be reduced to 4 85 Gm. per 100 cc or as low as 3 8 Gm which was observed in one extreme case Loss of fat soluble vitamins and, to a lesser degree, water soluble vitamins gives rise to many deficiency manifestations Marked depression of the serum calcium may initiate symptoms of tetany Primary types of macrocytic anemia not infrequently accompany advanced instances of this disease with the color index above one and a stained smear which strongly recalls that of a macrocytic hyperchromic anemia

The roentgenographic recognition of ileojejunitis is usually fraught with little difficulty, provided the x-ray examination of the upper alimentary tract is carried out with a view to determining possible foci of granulomatous disease The roentgen appearance is that of scattered collections of barium in a small intestine which has lost its markings and its normal mucosal folds, the barium collecting in dilated areas of the lumen separated by constricted and contracted areas of disease The roentgen picture is somewhat analogous to that of sprue and often can be differentiated only with great difficulty The sacculations and the intermediate constricted areas indicate an organic rather than a functional change and suggest ileojejunitis rather than sprue The test is the ability to reverse the roentgenographic changes of sprue by means of vitamin therapy In sprue the successful use of deep injections of crude liver extract, vitamin B complex, or folic acid will cause a reversal of the changes of the mucous membrane pattern with the restoration of the mucosal folds to a normal picture Such a change cannot be produced in ileojejunitis where the characteristic roentgen picture of the disease is irreversible, even after apparent clinical cure or prolonged remission The appearance of polyps or of polypoid appearance in the mucosal pattern tend to confirm the diagnosis of ileojejunitis, since polyps do not occur in sprue pathologically or roentgenographically

The ultimate prognosis in ileojejunitis depends to a great extent upon the degree and the type of involvement of the small bowel in the granulomatous process Obviously, a localized or segmental lesion presents a different picture from the standpoint of prognosis than does a disease which involves the entire extent from ileocecal valve to duodenum In the localized forms surgical intervention, resection or short-circuiting, is feasible and usually is associated with a highly successful outcome In the diffuse processes the approach must essentially be a conservative one Fortunately, in the latter cases recession of the lesion with healing has frequently been observed In this series of 38 cases under observation the end results were noted after a follow-up of two to twelve years (Table 1)

TABLE 1.—RESULTS IN 38 CASES OF ILEOJEJUNITIS

Status of Patient	Number
Clinically well	13
Clinically fair	6
Poor with persistent symptoms	7
Died	6
No follow-up	6

It will be noted that 13 of the 38 cases were improved and free of symptoms, giving the clinical impression of being well restored to health Five of these 13 successful cases represent surgical cures by localized resections It is interesting that in the medically "cured" cases the roentgenographic evidence of disease has not changed in spite of the clinical betterment Apparently, scarring occurs in the length of the small intestine, so that even though the patients are well, with great improvement in nutrition and weight, the roentgen evidence of ileojejunitis can always be found

On the other hand, the severity of the disease is indicated by the fact that in six instances the end result was fair, seven cases were, from the standpoint of therapy, clinical failures, and six patients died Obviously the whole picture is one of either spontaneous or surgical recovery on the one hand or of chronic invalidism on the other The medical conservative treatment is aimed at attempting to overcome the infection (?) and to attain the restoration of nutrition and of weight No present known drug or antibiotic

has a specific action upon the disease The insoluble sulfa drugs such as sulfasuxidine, sulfathaladine, and sulfacetamide are all clinically used, particularly in the presence of fistulas, and at times have the seeming ability to close draining fistulous tracts As far as countering the intestinal infection or of curing the disease process, the sulfa drugs have not shown specific effects The same applies to penicillin, to streptomycin, dihydrostreptomycin, and, from a very limited experience, to aureomycin

The general health and weight of the patient is maintained by transfusions, by intravenous infusions, by a high concentrated protein diet, and by the liberal use of protein hydrolysates by mouth and by the intravenous method The intramuscular injection of crude liver extract and vitamin B complex in large amounts (2 to 5 cc) two to three times a week is a necessary measure in the presence of such a marked disturbance and deficiency of vitamin absorption from the intestinal tract

Direct indications for surgical intervention are limited to those cases in which the lesion is localized to one or more isolated segments of the small bowel

Obviously, in the first group where the disease is an extension upward from a regional or terminal ileitis, no radical surgical measure will be of any avail The same applies to the group where the whole ileum and the whole jejunum are diffusely involved Massive resection of the whole or of the major part of approximately 13 feet of ileum and jejunum has been surgically accomplished with survival of the patient and have been amply reported in the literature, but these resections were performed for conditions other than ileojejunitis [7–9] Such massive resections have not to my knowledge been adapted to the cure of diffuse ileojejunitis with survival of the patient

In the third group, those cases with high and isolated involvement of segments of the jejunum, we note the most successful of surgical procedures Here a localized resection is not only possible but gives most satisfactory results Attempts at short-circuiting alone are usually failures and frequently require resection of the diseased area of jejunum Multiple non-neoplastic granulomatous areas of involvement in the jejunum have been reported with multiple resections of the involved areas with cure [10]

The last group constitutes those cases in which a high jejunitis is associated with a distal terminal ileitis In this type two independent surgical procedures simultaneously performed are required The upper isolated lesion of the jejunum should be resected and the distal ileitis short-circuited Such unusual cases cellent results

Conclusions

The course and prognosis in ileoj varied depending on the anatomic loc the distribution of the lesion. Sp healing under medical treatment is pos the apparent restoration to good healt surgical resection where possible is satisfactory, where the lesion is diffuse gressive, the results are disappointing specific antibiotic exists for the disease p

Discussion

John Burke, M D , *Buffalo* —From experience with regional enteritis, Dr C presented another facet of this intriguing Whether the incidence of regional enteritis i in Metropolitan New York or whether t population is responsible for the large nu cases that Dr Crohn's associates see, I do n but it is obvious that Dr Crohn's exper far greater than that of anyone in our com In the last five years about 20 proved case gional enteritis have been seen in one of ou hospitals During the same period a slightl number of cases have been seen in which u ocal radiographic or operative evidence is I There have been four cases involving the j during this period, a number too small t valid conclusions In one of these cases the the incidental presence of talc-granulomat previous operative experience, and in ano lymph node removed at the time of operatic diagnosed as tuberculous All four cases hav seen within the past two years, and statemen cerning their prognosis must be guarded N them are entirely symptom free

Currently, there are three types of jej which must be distinguished by the surgeon this distinction cannot always be made witho operation and in some instances not without bi There is a jejunitis that Dr Crohn has jus scribed, second there is the phlegmon of th junum, and third the necrotizing jejunitis whic been observed in the past four or five yea Northern Germany, described recently by Fick Wolk in the *Lancet* * The phlegmonous lesion characterized by marked involvement of the mucosa, and the mucosa is rarely destroyed ex in the terminal phases The organism most c monly recovered has been the streptococcus lesion has usually been treated by resection, but entirely possible that antibiotics alone w suffice To my knowledge, this has not yet b described Fick and Wolk have described a f of necrotizing jejunitis, characterized by a very h mortality, in which there is a gangrenous invol ment of all coats of the jejunum A clostri organism resembling Clostridium welchi has b implicated in these cases In Fick and Wolk's ser of 18 cases there were 16 deaths One of the s

ıvors had been treated by resection of the involved :gment, and the treatment of the other survivor as not described. Fortunately, we have not :en this lesion in the United States as yet

I am not sure that Dr Crohn's suggestion of re-:ction for the involved jejunal segments and short-:cuting ileocolostomy for the involved ileum will : adequate in all cases It seems to me that if :struction is not present, simple by-passing an-:tamosis will not prevent the flow of intestinal :aterial through the diseased loop and consequently ıill not give it adequate rest for healing purposes

We have recently seen a case which demonstrates the failure of simple ileocolostomy The patient was a fifty-five year-old Italian man, the onset of whose disease was in 1945 For three years he was troubled with diarrhea and loss of weight and in January of 1948 developed a bladder fistula He was admitted to the Cleveland Clinic at this time in very poor physical shape At operation the bladder fistula was repaired, and presumably because of his poor condition, an ileocolostomy carried out He returned to the Clinic on several occasions during the spring and summer, but his condition was not considered adequate for resection The patient was admitted to the Veterans' Administration Hospital at Batavia, and after numerous transfusions and the use of intravenous protein hydrolysates, he was operated on in October, 1948 At this time it was seen that the ileocolostomy was in continuity In other words, the ileum had not been transected The inflammatory process of the pelvis was still quite active, and it was thought in view of his relatively poor condition that transection of the ileum at the anastomosis was the most desirable procedure, thereby defunctioning the diseased ileum The patient made an uneventful recovery, with disappearance of his diarrhea He gained about 30 pounds in weight, but in March, 1949, he again noted the appearance of a bladder fistula and was readmitted to the Veterans' Hospital The fistula was demonstrated by x-ray, although at the time of cystoscopy a definite fistulous opening could not be seen in the bladder An indurated area could be seen in the bladder wall, but no definite fistula could be seen About ten days after cystoscopy, patient was re-operated, and the defunctioned diseased ileum was resected At this time the fistula had apparently healed, because, after the ileum and sigmoid had been freed from the bladder, the bladder could be filled with fluid and no leak was seen His recovery was uneventful, and he left the hospital two weeks after operation It is obvious that at this time one cannot predict that his disease has been terminated

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TECHNIC FOR LEUKEMIA

A hopeful advance in leukemia fighting was announced at the meeting of the American Medical Association in Atlantic City It consists of a precision technic for treatment that would be lost if doctors had to continue the trial and error methods of the past

A young man who about a year ago was given three days to live is now back at his work as college athletic director, thanks to the new precision technic for treatment His case and others also as dramatic were reported by Drs Charles A Doan, B K. Wiseman, and Claude-Starr Wright of Ohio State University College of Medicine

He is alive because the Ohio doctors have found that each of three modern chemicals used to treat leukemia works best in one kind of leukemia, but the one that is good medicine in one type of the disease is not good in another Aminopterin, an antivitamin chemical, for example, is effective in lymphocytic leukemia and a little effective in monocytic leukemia. But it does not help patients with myeloid leukemia That kind is helped by urethane, a chemical that is not effective in other leukemias. And nitrogen mustard, the war gas chemical, is good in monocytic leukemia, a little effective in the myeloid type, and ineffective in the lymphocytic leukemia

A patient coming to the hospital with acute leukemia is just as sick and in just as great danger as a patient with acute appendicitis, Dr Doan emphasized Vitally precious time may be lost if the doctor has to try first one treatment and then another in the hope of hitting one that is effective But study of a patient's blood cells and bone marrow will tell which type of leukemia he has and, therefore, which type of treatment will be most effective.

Diet treatment is also prescribed by the Ohio doctors for some leukemia patients on the basis of the kind of leukemia they have In one kind, the study of the blood cells shows that an enzyme chemical needed to handle fat is missing or ineffective. Such patients get a diet that completely eliminates fat. Another kind are limited to less than two ounces of protein food a day because they lack a protein-digesting enzyme

The technics the Ohio doctors have worked out resulted from the study of over 1,000 leukemia patients during the last eighteen years —*Science News Letter, June 18, 1949*

has a specific action upon the disease The insoluble sulfa drugs such as sulfasuxidine, sulfathaladine, and sulfacetamide are all clinically used, particularly in the presence of fistulas, and at times have the seeming ability to close draining fistulous tracts As far as countering the intestinal infection or of curing the disease process, the sulfa drugs have not shown specific effects The same applies to penicillin, to streptomycin, dihydrostreptomycin, and, from a very limited experience, to aureomycin

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Obviously, in the first group where the disease is an extension upward from a regional or terminal ileitis, no radical surgical measure will be of any avail The same applies to the group where the whole ileum and the whole jejunum are diffusely involved Massive resection of the whole or of the major part of approximately 13 feet of ileum and jejunum has been surgically accomplished with survival of the patient and have been amply reported in the literature, but these resections were performed for conditions other than ileojejunitis [7–9] Such massive resections have not to my knowledge been adapted to the cure of diffuse ileojejunitis with survival of the patient

In the third group, those cases with high and isolated involvement of segments of the jejunum, we note the most successful of surgical procedures Here a localized resection is not only possible but gives most satisfactory results Attempts at short-circuiting alone are usually failures and frequently require resection of the diseased area of jejunum Multiple non-neoplastic granulomatous areas of involvement in the jejunum have been reported with multiple resections of the involved areas with cure [10]

The last group constitutes those cases in which a high jejunitis is associated with a distal terminal ileitis In this type two independent surgical procedures simultaneously performed are required The upper isolated lesion of the jejunum should be resected and the distal ileitis short-circuited Such unusual cases give excellent results

Conclusions

The course and prognosis in ileojejunitis is varied depending on the anatomic location and the distribution of the lesion Spontaneous healing under medical treatment is possible with the apparent restoration to good health Local surgical resection where possible is eminently satisfactory, where the lesion is diffuse and progressive, the results are disappointing since no specific antibiotic exists for the disease process

Discussion

John Burke, M D, *Buffalo*—From his vast experience with regional enteritis, Dr Crohn has presented another facet of this intriguing disease. Whether the incidence of regional enteritis is greater in Metropolitan New York or whether the large population is responsible for the large number of cases that Dr Crohn's associates see, I do not know, but it is obvious that Dr Crohn's experience is far greater than that of anyone in our community In the last five years about 20 proved cases of regional enteritis have been seen in one of our larger hospitals During the same period a slightly larger number of cases have been seen in which unequivocal radiographic or operative evidence is lacking There have been four cases involving the jejunum during this period, a number too small to draw valid conclusions In one of these cases there was the incidental presence of talc-granulomata from previous operative experience, and in another a lymph node removed at the time of operation was diagnosed as tuberculous All four cases have been seen within the past two years, and statement concerning their prognosis must be guarded. None of them are entirely symptom free

Currently, there are three types of jejunitis, which must be distinguished by the surgeon, and this distinction cannot always be made without an operation and in some instances not without biopsy There is a jejunitis that Dr Crohn has just described, second there is the phlegmon of the jejunum, and third the necrotizing jejunitis which has been observed in the past four or five years in Northern Germany, described recently by Fick and Wolk in the *Lancet* * The phlegmonous lesions are characterized by marked involvement of the submucosa, and the mucosa is rarely destroyed except in the terminal phases The organism most commonly recovered has been the streptococcus The lesion has usually been treated by resection, but it is entirely possible that antibiotics alone would suffice To my knowledge, this has not yet been described Fick and Wolk have described a form of necrotizing jejunitis, characterized by a very high mortality, in which there is a gangrenous involvement of all coats of the jejunum A clostridial organism resembling Clostridium welchi has been implicated in these cases In Fick and Wolk's series of 18 cases there were 16 deaths One of the sur-

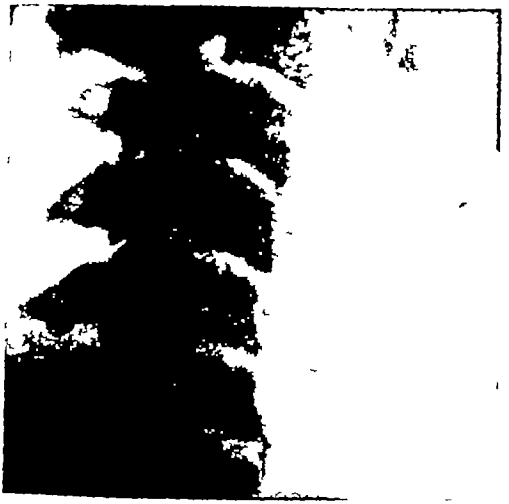


FIG 1 Marked loss of normal lordotic curve of the cervical spine with anterior displacement of the fourth vertebra due to subluxation in a forty-one-year-old woman who had suffered from migraine headache for twenty-five years and gave a history of definite previous trauma to the spine

ripheral irritation of the viscera innervated by the vagus nerve may cause reflex stimulation of the upper two cervical nerves, which in turn may carry afferent impulses to the principal cephalic sympathetic ganglia (trigeminal) via the cervical sympathetic ganglia and thus produce headache

In migraine, the upper two cervical nerves become irritated and set off a series of afferent impulses going to the cephalic ganglia via the sympathetics, which may affect any or all the cranial nerves, especially the fifth nerve, afferent impulses may also travel directly along the vagus nerve producing visceral symptoms In addition, the irritation may be conveyed to the other cervical nerves producing a diffuse clinical picture with symptoms referred for the greater part to the back of neck and upper extremity In this way, a mechanism of reflex irritation is initiated, causing headache and a wide range of symptoms which are encountered in migraine

This explanation does not in any manner disprove the findings and theory of Wolff that headache results from distention of the cranial arteries, because irritation of the upper cervical nerves can be shown to produce vasodilatation of these vessels [9]

What produces the irritation of the upper cervical nerves in migraine is the subject of much debate Trauma to the neck may cause damage to the intervertebral disks and produce a weakening or subluxation of the surrounding ligamentous struc es of the cervical vertebrae permitting the vertebrae to be thrown out of their natural alignment (Fig 1) The weakening of the ligamentous structures allows the nucleus pulposus of the intervertebral disk to herniate out of its normal position, and the herniated nucleus pulposus produces compression of the cervical nerves, which are located directly posterolateral to the intervertebral disks Traction of the head gives definite relief of symptoms in migraine, probably by making the ligaments which support the intervertebral disks taut, thus increasing the intervertebral spaces and forcing the displaced nucleus pulposus into its normal position Thus the two factors which cause pain, compression of the roots of the cervical nerves and reflex spasm of the muscles of the neck, are overcome Jostes reported definite, immediate, and often permanent relief of neck and head pain by head traction in cases which he demonstrated by the use of body section roentgenography (laminography) were due to occipitocervical lesions [10]

What produces the periodicity of attacks in migraine is difficult to say with certainty However, it has been found that in every case examined there was definite localized tenderness over the upper cervical spine on the same side as the pain, especially during the attacks and to a lesser extent (but still to an appreciable degree) between the attacks, although the patients in the majority of cases never complained about the neck This suggests the possibility that the upper cervical nerves are being constantly irritated, producing a permanent "subclinical" neuritis, even though the patient may be free from symptoms between the attacks Therefore, all that is needed to precipitate an attack is some slight stimulation of the sympathetic nervous system as occurs during emotional stress or strain, during the menstrual period in women, etc

Factors in Migraine

Trauma to the neck is probably the most important factor in producing migraine, and consequently the greater the injury to the neck, the more likely are symptoms of migraine liable to occur Sometimes, several minor injuries to the neck may produce migraine Very often, the trauma may be so slight as to be unnoticed at the time or forgotten, inasmuch as the symptoms may occur many days, months, or years later Out of 20 cases reported here, six patients gave a definite history of injury to spine prior to the onset of symptoms of migraine

The postconcussion syndrome which follows severe injuries of the skull features many symptoms which are not easily accountable to the head injury In many head injuries, even though slight, there is also damage done to the inter-

MIGRAINE HEADACHE TREATED SUCCESSFULLY BY HEAD-TRACTION MANIPULATION AND THIAMIN CHLORIDE

MURRAY M BRAAF, M D , New York City

THE fact that irritation of the roots of the cervical nerves may cause radicular or referred pain has long been recognized, but little has been known about the possibility of a herniation of the nucleus pulposus of the cervical intervertebral disk, causing pressure on the nerve roots and hence producing a radiculitis of the involved nerve roots As early as 1928, Stookey described a cervical lesion due to "ventral extradural chondroma" which was shown later by Elsberg actually to be herniated portions of nucleus pulposus [1 2] In 1943 Semmes and Murphy reported a radiculitis caused by a lateral compression of the seventh cervical nerve by a herniated and ruptured sixth cervical intervertebral disk, and Spurling and Scoville in 1944 included 12 cases in their report describing the clinical syndrome produced by compresssion of the sixth and seventh cervical roots by a lateral herniation of the nucleus pulposus [3 4] Raney and Raney last year showed that "lesion of the cervical disk is one of the commonest pathologic conditions of the cervical spine, and one of the commonest symptoms resulting therefrom is headache" [5] Kern described the effects of blocking off the nerve impulses of the cervical nerves, in 1947 he reported treatment, with favorable results, of over one hundred patients giving a history of chronic recurring headache by injecting 1 per cent solution of procaine hydrochloride into the region of the distribution of the posterior sensory divisions of the upper cervical nerves [6]

Anatomy

The cervical nerves are intimately connected and communicate with all of the cranial nerves either directly or indirectly through the sympathetic system Directly, the vagus nerve (tenth) sends communications to the roots of the first two cervical nerves, the accessory (eleventh) to the second, third and fourth nerves, and the hypoglossal (twelfth) to the first three nerves, indirectly, all cranial nerves are connected with the superior and inferior cervical ganglia of the sympathetic The cervical ganglia when traced upward join with the ganglia of the cranial nerves, these latter ganglia properly belong to the sympathetic system and may be considered to represent an upward extension of the ganglia of the paired sympathetic trunks lying alongside of the vertebral column and can be termed the "cephalic sympathetic ganglia," of which the ganglia associated with the trigeminal (fifth) nerve (the ciliary, sphenopalatine, otic, and submaxillary ganglia) represent the principal ganglia of the cephalic sympathetic system

Etiology

It must be remembered that branches of communication are as much nerves of distribution as the others Therefore, afferent stimuli originating in the upper cervical nerves may cause pain in the back of the head and neck, ear, front of neck, the shoulder, chest, and upper back through the superficial branches of the cervical plexus and the greater occipital nerve These same afferent impulses may also be carried to the principal cephalic sympathetic ganglia (trigeminal) via the superior cervical sympathetic ganglia and produce pain along the branches of the trigeminal nerve, especially the ophthalmic and maxillary branches This can be proved in patients suffering from migraine headache when the pain is situated along the back of the head and neck, as well as along the distribution of the trigeminal nerve, by cocainization of the floor of the nose on the same side as the pain. In the floor of the nose there are chiefly the nerve plexuses derived from branches of the fifth nerve, namely, the nasociliary nerve of the ophthalmic, the infraorbital nerve of the maxillary, and branches of the sphenopalatine ganglion. After twenty to thirty minutes, the pain and soreness in the back of the head and neck, as well as the pain along the distribution of the fifth nerve, will disappear Moreover, in patients complaining of pain in the lower back or even in the lower extremity, the pain can be made to vanish upon cocainization of the nerve endings of the nose on the same side [5] A reasonable explanation is that the afferent impulses which carry pain sensation from the sympathetic nervous system to the central nervous system are temporarily cut off by paralyzing the principal cephalic sympathetic ganglia

Furthermore, irritation of the first two cervical nerves may reflexly stimulate the vagus nerve and produce visceral symptoms referable to the sensory distribution of the vagus to the pharynx, esophagus, stomach, larynx, trachea, lungs, heart, and abdominal viscera, accounting for all types of chest and abdominal pain, nausea, vomiting, tachycardia, and other visceral symptoms. Pain may be referred as far down as the lower quadrant of the abdomen. Conversely, pe-

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may be typical changes of herniation of the lower cervical intervertebral disks described above (Fig 5) Consequently, these latter cases will display, in addition to migraine, radicular symptoms referable to the particular nerve roots being compressed by the lower cervical intervertebral disks However, in 25 per cent of the cases no apparent roentgenologic changes can be found



FIG 5 Marked narrowing of the fifth intervertebral disk with osteoarthritic changes of the fifth and sixth cervical vertebrae in a migrainous, forty-year-old woman who suffered also from periodic attacks of severe pain in the right upper extremity

Treatment of Migraine

Abortive Therapy—Most attacks of migraine can be easily controlled and often aborted by simple head-traction manipulation of the neck to be described below, especially if seen early during the attack It must be remembered that a neuritis of the affected nerves is set up, and the longer the attack lasts, the more pronounced is the irritation of the nerves This irritation may persist in some cases for several hours or even days after the pressure on the nerves is relieved Hence, it is an important adjunct to therapy to treat the affected inflamed nerves For this purpose, large doses of thiamin chloride of from 300 to 400 mg are injected intramuscularly during an attack after manipulation. Usually, one treatment will stop or greatly diminish the attack. However, if symptoms persist, 5 cc of 2 per cent procaine hydrochloride are injected into the upper cervical spine on the same side as the pain It is advisable, wherever possible, to have the patient lie down for one-half to one hour after the treatment



FIG 4. Marked loss of normal lordotic curve of the cervical spine, giving a so-called "poker" appearance, in a boy of eighteen who had suffered from migraine for seven years and who gave a history of previous spinal trauma

Routine Therapy—Routine therapy consists of head-traction manipulation of the neck and intramuscular injection of 100 to 300 mg of thiamin chloride It must be emphasized that continuation of therapy is of vital importance if favorable results are to be obtained Routine treatment should be carried out for at least one to two months At the start, treatments may have to be carried out daily, especially in severe cases, for the first week, then three times weekly for the next two weeks, and twice a week thereafter However, no hard and fast rule can be applied, for each case must be judged on its own merits depending upon the degree of improvement obtained.

Head traction alone may be sufficient to give relief in a good many cases, but in the chronic cases of long standing thiamin chloride must be added to the treatment

Manipulation.—Head traction is obtained by means of a Sayre's traction apparatus with the patient lying flat on his back on a hard table The advantages of having the patient lie on his back while employing head traction in preference to the standing position are twofold,

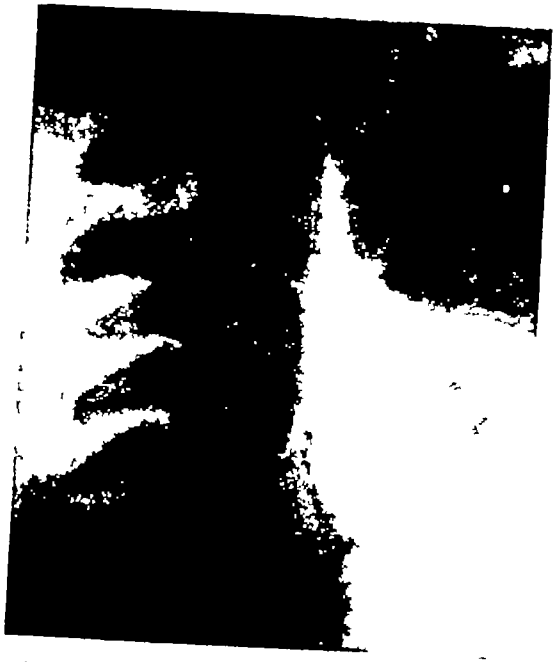


FIG 2 Anterior displacement of the fourth cervical vertebra due to subluxation with suggestive narrowing of the fifth intervertebral disk, loss of the normal lordotic curve, and osteoarthritic changes of the fifth and sixth cervical vertebrae in a thirty-six-year-old male complaining of postconcussion headaches Note similarity to Fig 1

vertebral disks of the neck (Fig 2) Of course, the more severe the head injury, the more probable is the cervical spine liable to be damaged

Constant straining of the neck in reading or looking at a moving picture usually precipitates an attack of migraine Other exciting factors are allergy, ingestion of alcohol, menstruation, emotional upsets, barometric pressure variations, severe coughing in bronchial and pneumonic conditions, prolonged strain on the neck during the administration of anesthesia for surgical operation, exposure to sun, and exposure to smoke fumes as when sitting in smoke-filled rooms All these factors are only exciting or precipitating causes producing a direct or indirect irritation of the upper cervical nerves

Heredity appears to be an underlying factor in a certain proportion of cases of migraine Out of 20 cases, five gave a family history of migraine occurring in members of the same family In these cases, roentgenologic studies of the cervical spine revealed an exaggeration of the normal lordotic curve It is very possible that cases of migraine, where there is a family diathesis, inherit a so-called "weak" cervical spine with an exaggeration of the lordotic curve which is more subject to injury after very slight trauma than a normal spine

X-Ray Findings

The roentgenographic findings characteristic of lesions of the cervical disks have been well described by many observers [11 12] They consist of narrowing of the affected intervertebral space, loss of the normal lordotic curve, osteophytic outgrowths around the affected disks, and narrowing of the intervertebral foramina These findings may be considered diagnostic of a cervical herniated disk, especially in conjunction with the clinical picture of radicular syndrome

The roentgenologic examination of the cervical spine in migraine usually shows definite variation from the normal, and the evaluation of these changes is often difficult However, for the greater part, they appear to fall into two main categories The first group shows an apparent exaggeration of the lordotic cervical curve usually seen in the heredity type of migraine (Fig 3), and the second displays a loss of the normal lordotic curve varying from slight deviation to complete reversal of the curve usually found in the traumatic type (Figs 1 and 4) In addition, there



FIG 3 Moderate exaggeration of normal lordosis of the cervical spine and minimal osteoarthritic changes at the fifth articulation in a woman, fifty-three years of age, a migraine sufferer for twenty-two years, who gave a family history of migraine

THE TREATMENT OF PARALYSIS AGITANS WITH THEPHORIN*

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THE multitude of therapeutic agents recommended in the treatment of paralysis agitans indicates that no entirely satisfactory treatment has as yet been found The therapeutic agents proposed vary considerably in their effectiveness in various forms of the disease and from patient to patient in the same group The variability in the therapeutic response poses a challenging problem to the clinician both to find the optimal combination of known drugs best suited to the individual requirements of a patient and to continue to search for new therapeutic agents of greater efficacy

The remedies which have been recommended can be divided in two groups The larger and more important of these groups comprises those drugs which possess an atropine-like action on the parasympathetic nervous system, while all the other drugs devoid of this activity fall into a chemically and pharmacologically heterogeneous group which as yet defies more detailed classification

Of the atropine-like agents scopolamine is perhaps the most widely used and most satisfactory drug The effect of this drug was known to the French neurologists, Pierre Marie, Roussey, and Souques, who were using the alkaloid during the latter half of the last century and who already had observed the striking benefit obtainable in certain cases and the symptoms of intolerance appearing in others [1] It is now known that, as a rule, scopolamine is of great benefit in postencephalitic parkinsonism, while cases from other causes are seldom affected or show intolerance to this drug Other solanaceous alkaloids such as atropine, hyoscıamine, and stramonium have been used and found to have an effectsimilar to scopolamine [2] Certain synthetic atropine substitutes such as Syntropan and Trasentine have a similar action [3 4] The analgesic drug Demerol, which is a synthetic atropine derivative, also possesses a beneficial action in certain cases [5] Parpanit and Diparcol which have been recommended as "antiparkinsonian" agents both possess atropine-like properties [6 7] The antihistaminic Benadryl which also possesses marked atropine-like action has also been found effective in certain cases of paralysis agitans [8] Of the drugs not possessing an atropine-like action only myanesin and amphetamine sulfate deserve mention [9 10]

Recently, 2-methyl-9-phenyl-2,3,4,9-tetrahydro-1-pyrıdindene hydrogen tartrate, called Thephorin, has been introduced as an antihistaminic [11 12] This substance belongs to a class of compounds which are chemically unrelated to other antihistaminics or indeed to any drug used in medicine Thephorin, in addition to its antihistaminic action, possesses atropine-like action which is about 90 times weaker than that of atropine itself when evaluated on the isolated intestinal strip stimulated with acetylcholine It differs from other agents with atropine-like properties which have been used in paralysis agitans by not having a depressant action on the central nervous system The pharmacologic properties of Thephorin suggested that it may be effective in paralysis agitans The present paper describes the results of clinical trials of the drug

Methods and Materials

We have had the opportunity to observe the effect of Thephorin on some patients whom we had previously treated by a number of other remedies with varying degrees of success Such a group of patients appeared particularly suitable for the clinical trial of a new drug, not only because of their known responses to various remedies but also because of their lower suggestibility as to the effect of new medication Of the 24 patients which have been studied nine were hospitalized and eight were able to pursue a gainful occupation, while the rest were able to take care of themselves or were looked after at home

Diagnosis —An attempt was made to determine the cause of the disease in every case which was treated The disease was considered to be of postencephalitic origin even in the absence of a history of encephalitis if the patient suffered from encephalitic residua, such as a defect of convergence, impaired pupillary reaction, or oculogyric crisis Fairly rapid

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* Thephorin is the Roche brand of phenindamine. Liberal supplies of Thephorin were made available through the courtesy of Dr Elmer L Sevringhaus of Hoffmann La Roche Inc

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first, the patient is more relaxed and less apprehensive, and second, the position of the head can be varied, according to the angulation of the cervical curve of the spine found on x-rays, by raising or lowering the headrest on the table

With the patient lying on his back on a hard table, a Sayre's traction apparatus is placed firmly under the chin and occiput of head, and traction of the head and neck is maintained for at least five minutes This maneuver aids in relieving muscle spasm and in promoting muscle relaxation and usually gives the patient immediate relief Next, the pulley and traction bar are released and disconnected, and by using the headstraps, while the physician stands in front of the table, the head and neck are moved laterally to the right and then to the left with constant steady pull in each position for about fifteen to thirty seconds The head is then rotated toward each shoulder, while the head is still held in traction Traction should be steady, even, and constant throughout the maneuvers and should cause no pain, pain usually indicates that too much force is being used in the traction and is a sign to discontinue traction

Summary of Results

Although good results have been obtained in the postconcussion headache by head-traction manipulation, they have been purposely omitted in this report to avoid possible confusion between postconcussion headache and migraine headache

Most observers believe that several definite criteria are necessary to make a diagnosis of migraine These criteria are (1) cephalgia (usually hemicrania), (2) periodicity of attacks, (3) gastrointestinal symptoms, (4) so-called cortical or psychic disturbances such as scotoma, paresthesias, etc , and (5) relief of the attack by Gynergen or allied drugs

Twenty cases of migraine having the first two criteria and at least two out of three of the other criteria have been selected for presentation in this article They were treated by head-traction manipulation and intramuscular injections of thiamin chloride for a period varying from one to twelve weeks, the average being six weeks They included 15 women and five men, varying from eighteen to fifty-four years of age, who had had these attacks for from one to thirty-five years Those who suffered from migraine for less than five years usually responded better than the more chronic cases All the cases with the exception of two were observed for a period of six to twelve months after cessation of therapy

Evaluation of treatment is, no doubt, difficult because the results are not objectively measurable We must depend upon the statements of the patient in gauging the effects of therapy Results are based upon the frequency, intensity and duration of attacks before and after therapy However, the patient's own evaluation of improvement has been given special preference in this report, although it does not represent the true picture because the average migrainous patient is very apprehensive and tends to underestimate the amount of improvement

Each case according to the patient's statements was improved from 70 to 100 per cent, six of the 20 cases (including one case of thirty-four years duration) reported being free from attacks during the entire period, varying from six to twelve months, since cessation of therapy

Conclusions

1 Migraine is probably caused by herniations of the cervical intervertebral disks which by compression produce a neuritis (radiculitis) of the upper two cervical nerves

2 Trauma of the neck is a very important causative factor in producing migraine

3 In most head injuries there is a concurrent injury of the intervertebral disks of the neck

4 Migraine can be treated successfully by head-traction manipulation and thiamin chloride

Grateful acknowledgment is made to Dr William D Weir for his encouragement and criticism in this work

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SEE PAGE 1780

stress Restlessness and nervous tension decreased under the influence of the drug, as did the cramps and aches sometimes encountered in this disease

After the patients had been taking Thephorin for one to four months the drug was discontinued and the reaction of the patient observed In patients also taking another drug, such as one of the alkaloids or myanesin, only Thephorin was discontinued, and administration of the other agent continued in unchanged dosage On discontinuation of the Thephorin it was suggested to the patient that his condition would probably remain unchanged In spite of this a gradual reappearance of symptoms after omission of Thephorin was observed After four or five days without the drug most patients were in a similar condition as before Thephorin treatment was commenced Tremor and rigidity were intense, speech was weak and difficult to understand, movements were slower again, and the gait deteriorated All of the patients were very anxious for the recommencement of the Thephorin medication which was again able to ameliorate their symptoms

Most of these patients tolerated the drug well. Side-effects of a slight degree were observed in four Of these, two patients experienced chills and hot flushes and became slightly confused when given 50 mg three times daily Half of this dose did not cause side-effects and maintained the clinical improvement The conjunctivae of one patient became injected while he was on Thephorin Another patient experienced temporary sleeplessness when he started taking the drug, but this disappeared after a few days, although he continued taking the drug in full doses

Unfavorable Results—In 11 patients Thephorin did not have beneficial effects, but in six of these it was not given a complete trial because of the side-action of the drug Of the 11 patients who did not benefit from Thephorin six had postencephalitic parkinsonism (five of these reacted favorably to alkaloids), four suffered from idiopathic paralysis agitans (two of these being benefited by small doses of alkaloids), and one had the disease apparently as a result of carbon monoxide poisoning Side-effects of some degree appeared in nine cases They were of moderate severity in four cases, consisting of dizziness, nausea, and vomiting in two cases and sleeplessness and excitement in the other two cases These symptoms of intolerance appeared after two or three doses of the drug and disappeared promptly with the discontinuance of treatment Other side-effects complained of by the patients were diarrhea (one case), constipation (one case), sleeplessness (two cases), and nervousness (one case) Only two of the patients who did not benefit by the treatment did not show any side-effects

Discussion

One of the reasons for trying Thephorin in paralysis agitans was the atropine-like action of the drug The relief obtainable with the drug in suitable cases was, however, much greater than that observed after relatively larger doses of atropine This shows that the beneficial effect of Thephorin cannot be explained in its entirety by its atropine-like properties and suggests that the drug possesses a kind of central action independent from its atropine-like properties

The fact that Thephorin possesses both antihistaminic properties and effectiveness in paralysis agitans is of interest Benadryl, Demerol, Parpanit, and Diparcol also possess these two properties At present there is no indication that there would be any relation between the antihistaminic action and effectiveness in paralysis agitans of a substance The potent antihistaminic agent Pyribenzamine does not relieve paralysis agitans [8] Pyribenzamine does not possess atropine-like properties, and it appears that the effectiveness of certain antihistaminics in parkinsonism is more related to their atropine-like properties than to their antagonistic action to histamine

The neural mechanism underlying the manifestation of paralysis agitans is not clearly understood It appears that pathologic changes in the substantia nigra or of certain cells in the globus pallidus release certain extrapyramidal mechanisms from the restraining action of the basal ganglia These release symptoms probably originate in the reticular formation The damage in the basal ganglia manifests itself in an altered metabolism of its cells It appears that Thephorin and other drugs can temporarily influence this faulty metabolism In this connection it is of interest that the basal ganglia contain a high concentration of an enzyme that synthesizes acetylcholine [12] It may well be that in paralysis agitans the basal ganglia contain abnormally high concentrations of choline acetylase The administration of atropine or atropine-like substances will make them less sensitive to the action of acetylcholine and in this way temporarily compensate for the dysfunction of these centers The greater effectiveness of Thephorin as compared with atropine itself may be due either to a selective affinity of the drug for the basal ganglia or to a specific effect on the

onset before the fortieth year of life, various vegetative disturbances, and good response to alkaloidal treatment also favored encephalitic origin

Idiopathic or primary paralysis agitans was diagnosed when the disease developed rather insidiously after or around the fiftieth year of life The symptoms, as a rule, started unilaterally and gradually spread to the other side Pill-rolling movements of the fingers and relative preservation of mimic movements were also thought to speak in favor of primary paralysis agitans

Posology—The drug was given in doses of 25 to 50 mg two to four times daily after meals As a rule, 25 mg three times daily was tried to begin with, and the dose was increased only after it had been established that the patient tolerated the drug without serious side-effects Certain patients benefited more from 25 mg three times daily than from double this dose, while one patient needed as much as 50 mg four times daily Higher doses were not tried

If a patient was taking scopolamine, Rabellon, or another solanaceous alkaloid and was deriving benefit from the medication, this treatment was continued in full doses even after exhibition of Thephorin Similarly, patients who derived some benefit from myanesin were advised to continue with the drug at least for a time after Thephorin treatment was started *It was thought best that a patient* who was well adjusted to an alkaloid or myanesin should continue with these remedeis in full doses while a new drug was being tried

Results

Evaluation of Results—When evaluating the effect of the drug, care was taken to obtain objective evidence of improvement Charcot showed that patients suffering from paralysis agitans sometimes show spontaneous remissions which may lead to faulty conclusions during therapeutic trials [1] Remissions are usually characterized by a sudden onset and short duration As a rule, the spontaneous improvement does not last longer than a day or two and in my experience rarely longer than two weeks The symptoms of paralysis agitans may also be temporarily alleviated by suggestion, and for this reason certain patients will show improvement for a few days after the institution of any new treatment A truly effective drug will, on continued administration, maintain the improvement for several months When the medication is discontinued, a return of symptoms may be expected, and reinstitution of treatment should again abolish or ameliorate the symptoms These considerations were kept in mind when evaluating the effect of Thephorin

Favorable Responses—The treatment with Thephorin was tried in 24 patients, it was effective in 13 Of these, five suffered from postencephalitic parkinsonism and eight from idiopathic paralysis agitans The patients with postencephalitic parkinsonism had been taking scopolamine or Rabellon for some time with considerable benefit Of the eight patients suffering from idiopathic paralysis agitans who derived benefit from Thephorin, five did not tolerate or did not benefit from treatment with solanaceous drugs and were treated with Thephorin only The three other patients of this group were able to take small additional doses of scopolamine The improvement after the beginning of Thephorin administration took place after one or two days, and the full effect became apparent after one or two weeks of treatment

The improvement after Thephorin was marked in eight cases, moderate in four cases, and slight in one case The decrease of rigidity could be observed on physical examination and was also shown by the patients' ability to carry out movements and perform tasks which previously could not be carried out or were carried out only very slowly Certain patients who were not able to turn over in bed without assistance were able to do so one or two days after Thephorin medication was started Other patients were once again able to feed and dress themselves and to carry out finer movements The stooping attitude remained largely unchanged, but locomotion was greatly improved and was to a greater extent under the control of the patient It was easier for him to start and stop, the shuffle decreased but did not disappear, and automatic movements did not return The results were sometimes striking, as in the case of the man who had been confined to his chair for two years and who has been able to shuffle along once again and work as a hotel porter since he was started on Thephorin four months ago

Although in none of the patients did the natural mobility of the face reappear, the expression of the face became livelier, and the stare decreased The voice became stronger and clearer in most cases in which articulation was affected by the disease The tremor of the jaw and of the tongue often disappeared When the patient was not under nervous tension, the tremor of the limbs was also in abeyance The "readiness to shake," however, was still present and was not greatly changed by the treatment, as evidenced by the tremor exhibited by the patient when under emotional

REVIEW OF COLON SURGERY INCLUDING RECTUM FOR THE YEARS 1947–1948 AT THE BINGHAMTON CITY HOSPITAL

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(From the Binghamton City Hospital)

DURING the fiscal year starting in June, 1947, and ending June, 1948, the surgical service of the Binghamton City Hospital encountered 35 malignant lesions of the large bowel (Table 1) Because of the fact that so many worth-while advances have resulted from a better understanding of the basic physiology and pathology, coupled with chemotherapy and antibiotic therapy, technical advancement, as applied to a broadening of the surgical management of these lesions, has occurred The surgeon of today is better able to deal so efficiently with these lesions of the large bowel, not because he is always a better technician but because, step by step, a number of the difficult problems involved in colon surgery have been solved So much is this true that it has been stated, and perhaps rightly so, that the real problem left unsolved is that of early diagnosis We should concern ourselves more with this problem than with trying to perfect some new type of surgical operation to eradicate colonic neoplasms

Dehydration in its various forms, so common in these patients, can best be corrected by establishing adequate fluid intake and checking carefully the urinary output Blood chemistry, nitrogen, electrolyte balance, and serum protein levels are frequently disturbed to some degree Anemia and avitaminosis must not be overlooked A correlation of all these factors and the institution of necessary corrective measures are enacted during the preoperative period The use of chemotherapy before colon surgery is a moot question If it is carefully administered, the likelihood of its being harmful is far less than the beneficial results it offers

It must be stressed that the surgeon himself should have a good working knowledge of these recent physiologic and chemotherapeutic advancements He cannot relegate such detail in its entirety to anyone The over-all supervision is his responsibility There are many types of surgical procedures to be used in dealing with colonic malignancy, as this series of cases will show Fortunately, the operative mortality has been low, this speaks well for the surgical group The fallacies are to be found in the fact that no accurate follow-up data have been acquired

The right colon, because of the semiliquid content within and the involvement of the vascular and lymphatic bed, lends itself best to a right colectomy with ileotransverse colostomy Among the eight patients presenting a lesion in this section of the bowel five had this type of resection, all done by different surgeons, with no operative mortality The remaining three cases were treated in a different manner In one an ileotransverse colostomy without resection of the

TABLE 1.—MALIGNANT LESIONS OF THE LARGE BOWEL IN 35 PATIENTS

Location of Lesion	Operative Mortality (Per Cent)	Number of Cases	Average Age	Sex	Pathologic Diagnosis	Type of Resection	Average Hospital Days
Cecum, ascending colon	25	8	63 7	3 males 5 females	7	5 right colectomies with ileotransverse colostomy 1 death	31 8
						1 ileotransverse colostomy without resection of growth and no biopsy	25
						1 Mikulicz (died)	
						1 abdominal exploration biopsy	10
Transverse colon	33	6	66 5	1 male 5 females	5	2 resections of right colon with ileotransverse colostomy	15 30
						1 resection with primary anastomosis 2 Mikulicz (2 deaths)	23 10 and 12 days respectively
						1 ileotransverse colostomy (died) no biopsy	75 (died Parkinsonism of diabetes)
Descending colon and pelvic colon	10	10	57 5	6 males 4 females	10	5 resections with primary anastomosis In 1 case colostomy was done 1 death	33 2
						3 Mikulicz	
						1 anterior resection (Hartman)	28 6
						1 divided colostomy abscess in pelvis	30
Rectum	0	11	62 6	9 males 2 females	8	5 abdominoperineal 1-stage no deaths	28
						2 pull through (Babcock) abdominoperineal no operative deaths	36 5 27 and 87 days respectively
						2 loop colostomy (no biopsy)	38
						1 divided colostomy (no biopsy)	36
						1 abdominal exploration Wangensteen colostomy in transverse colon	22

choline acetylase itself If the latter should be found to be true, a convenient screening method for the detection of drugs with potential activity in paralysis agitans would be available

The evaluation of remedies in paralysis agitans is difficult not only because of the suggestibility of the patients, the day to day variations in their condition, and the incidence of spontaneous remissions, but particularly because all the remedies at our disposal are at present only palliative The changes which are observed, even if real and reproducible, cannot be accurately measured or recorded at present so that evaluation of a drug depends on the subjective estimate of the patient and the clinical impression of the observer This study showed that Thephorin may prove effective in about one half of the cases It was equally effective in postencephalitic as in idiopathic cases *It differed in this respect from scopolamine* and other solanaceous alkaloids which were effective, at least for a time, in almost all cases of postencephalitic parkinsonism but were, as a rule, ineffective in cases of other origin Although Thephorin was of value when given as the only treatment, it has been found that certain cases deriving great benefit from scopolamine may improve still further if additional doses of Thephorin are given Many postencephalitic patients obtain great relief of symptoms from scopolamine for many years Gradually, the effect of the drug diminishes until in the end it is no longer useful Thephorin has been found of value in three such cases

Two other drugs which are sometimes effective in paralysis agitans of postencephalitic or other origin are Benadryl and myanesin Benadryl appears to be of some value in about three fourths of patients, while myanesin shows desirable effects in about one third of the cases Benadryl appears to work particularly well in very old patients suffering from the so-called arteriosclerotic form of paralysis agitans The type of patient likely to benefit from myanesin can be recognized only by actual trial of the drug All of our patients who benefited from Thephorin had received Benadryl and myanesin on previous occasions Although many of them benefited from one or both of the drugs, the improvement after Thephorin was much greater than that felt or observed after Benadryl or myanesin On the other hand, there were patients who did not tolerate or did not benefit from Thephorin who were very favorably influenced by myanesin or Benadryl

The most frequently encountered side action of Thephorin was insomnia The incidence of side-effects of Thephorin in patients suffering from paralysis agitans is rather interesting Thephorin given to healthy people or to patients suffering from various allergic disorders caused side-effects in a smaller proportion of cases [14 15] It appears that the pathologic mechanisms which are responsible for paralysis agitans are particularly sensitive to the effect of Thephorin and suggests that the drug has a direct influence on these mechanisms

Summary

Thephorin is a useful drug in the symptomatic treatment of certain cases of paralysis agitans The drug appeared equally effective in cases of postencephalitic and idiopathic origin Tremor, rigidity, fine movements, facial expression, speech, gait, and pain were favorably influenced Thephorin was administered *alone or in conjunction with alkaloidal or other* drugs which the patients had been taking before treatment with Thephorin had been commenced The improvement was maintained as long as the drug was administered and disappeared on discontinuation of Thephorin Although Thephorin was effective in only about one half of the cases in which it was tried, the improvement obtained in certain cases justifies the trial of the drug in all cases which are not satisfactorily controlled by other remedies

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HESPERIDIN-C AND CAPILLARY FRAGILITY

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WHETHER hesperidin is actually vitamin P has been discussed in innumerable papers [1–3] Suffice it to say here that vitamin P was so named by Szent-Györgyi and his collaborators in 1936 when they found that extracts of paprika and of lemon juice benefited hemorrhagic cases which had failed to respond to pure ascorbic acid The name indicated some curative substance in these extracts which had a vitamin-like action on the permeability of capillaries [4] This curative substance was later found to be a crystalline flavone and was named "citrin" and later still was believed to be a mixture of crystalline substances called eriodictin, now thought to be hesperidin (a flavonone glucoside), eriodictyol glucoside, rutin (a quercitrin-like glucosone), chalcone compounds (hesperidin chalcone and methyl chalcone), and many flavone derivatives [5–7] It is not the purpose of this paper to discuss the various comparative values of any of these substances, singly or in combinations, to fulfill the functions of vitamin P Rather, its purpose is to present a clinical study on the effect of hesperidin and ascorbic acid in some cases of diabetes mellitus and of hypertension

Materials and Methods

The medication used in this study was in the form of a compressed tablet containing 50 mg of hesperidin and 50 mg of ascorbic acid * Because vitamin P is associated with vitamin C in nature it was desirable to combine the two and enhance a theoretic synergistic action The dosage varied from three to twelve tablets daily

The only other materials used were those necessary for carrying out the testing to display the Rumpel-Leede phenomenon The sphygmomanometer cuff was inflated where applied above the elbow, and the pressure was held at a level midway between the systolic and diastolic readings for six minutes Six minutes became the standardized time in this study, because the first patient selected for study could tolerate the continued positive pressure no longer His entire lower arm became literally so peppered with thousands of petechiae that a numerical reading would have been impossible, a similar massive petechialization was found in many more patients The cuff was then deflated, and after five minutes a count of the petechiae was made in two circles (2 5 cm each) located 4 cm below the antecubital fold An average of 20 or more petechiae was considered to be evidence of abnormal capillary fragility

* Supplied by the National Drug Co of Philadelphia.

Clinical Data

Twenty-five patients were selected for study because all had evidence of abnormal capillary fragility Twenty had diabetes mellitus Ten of these had various complications of the disease four had peripheral neuropathy, two had hepatomegaly, one had a cataract and recurrent cheilosis, two had Kimmelstiel-Wilson syndrome, five had retinopathy (grades 3 and 4), two had hypercholesterolemia, and seven had hypertension without albuminuria or retinopathy All the diabetics were moderately well controlled, and their diets and insulin dosages were not radically altered during the course of study All but two were taking insulin Five patients had hypertensive disease All of these were free of its complications except one who had chronic azotemia About one half of the 25 cases were private patients, and the others were outpatients in the clinic There were 18 women and seven men, their average age was fifty-three years (ranging from twenty-two to sixty-seven) The average duration of diabetes mellitus was eight years (ranging from six months to twenty-five years) and that of the hypertension was four years (ranging from one to fifteen years)

Restudy of the Rumpel-Leede phenomenon in the manner described was carried out once monthly and restudy of the eyegrounds was done at the same time The average length of time the drug was taken and the patients studied was eight months (ranging from two months in those with the least abnormal capillary fragility to eighteen months in those with the most) Before administration of the drug was started, ten patients' plasma was studied for levels of vitamin C All were found to have levels above that of adequacy (ranging from 0 82 to 1 90 mg in 100 cc plasma) These ten and the remaining 15 had no signs of scurvy

Observations

Cases with diabetes mellitus and those with hypertension alone will be discussed separately It will be found easiest to discuss both groups as to extent of pretreatment capillary fragility Those with diabetes will be taken up first

Cases with 4-Plus Capillary Fragility—These had 75 or more petechiae before treatment, all had the massive petechialization previously

cecum was considered the procedure of choice because of liver metastasis A Mikulicz resection was done with a death on the tenth postoperative day One patient, apparently not obstructed, was explored, a biopsy was taken, and because of extensive intra-abdominal metastases nothing more was considered necessary

The location of the lesion, the free mobility of the transverse colon (except for the splenic flexure), and good blood supply allow for the choice of several different procedures It is interesting to note that the average age is a bit higher than in the previous group, and also the condition is more prone to occur in women The Mikulicz procedure as carried out in two of the six patients resulted in an operative fatality in each case In one a portion of the jejunum was resected at the same time An ileotransverse colostomy in a patient with generalized intra-abdominal metastases resulted in death on the seventy-fifth day, the picture being complicated by rather severe Parkinsonism and diabetes A patient who underwent resection of the right colon with ileotransverse colostomy, applicable only in lesions in the right third of the colon, had a reasonably short hospital stay and a very good operative result A resection with primary anastomosis gave a very good operative result and the shortest hospital stay (twenty-three days) The Mikulicz resections referred to above were not put to an entirely fair test In the second case the lesion was located in the splenic flexure, perhaps the most difficult spot in the entire colon from the standpoint of technical difficulties encountered It is possible a cecostomy or Wangensteen colostomy at a point proximal to the resection might have been helpful

The sigmoid colon or, as the English anatomist prefers to call it, the pelvic colon is almost always quite mobile It does not include that portion of bowel below the peritoneal reflection which for the sake of eliminating confusion can best be called the rectum, the term "rectosigmoid" being eliminated Resection with primary anastomosis was preferred to the exteriorization procedures, and only one colostomy was done Of the ten lesions encountered, a resection with primary anastomosis done in five cases resulted in only one operative death A supracervical hysterectomy and bilateral salpingo-oöphorectomy were successfully accomplished in one of the cases The one fatality was due to sepsis, which results from leakage at the suture line far more commonly than spillage at the time of operation Exteriorization (Mikulicz) done in three cases did result in a shorter initial hospital stay, but, when one considers that the incidence of spontaneous closure without actual surgery is less than 15 per cent, further hospitalization is more likely One patient was treated by anterior resection (Hartman), the choice of this procedure should be limited to the poor risk, elderly patient A divided colostomy was done because of pelvic abscess The possibility of an associated diverticulitis with perforation as a causative factor must be considered In only one patient was a preliminary cecostomy resorted to as a decompressive measure The fact that the patient came to a successful resection with anastomosis speaks well for a procedure (cecostomy) that is not too useful most of the time

It was in the rectum that most of the lesions (11) were encountered, the greater number (9) being found in males The age incidence was a bit higher than in the descending colon and sigmoid group There must be something missing because it is difficult to believe that no operative death was revealed The one-stage abdominoperineal resection done in five cases, with no deaths and an average stay in the hospital of thirty-five days, is evidence of very excellent surgery, it even speaks well for the procedure The more complicated "pull through" Babcock abdominoperineal resection in two cases had no operative mortality A morbidity did occur, and an eventual hospitalization months later and death calls for an explanation in itself Loop colostomy without biopsy confirmation (two cases), in the opinion of the author, borders on a laissez-faire attitude A divided colostomy done in one case with extensive pelvic, abdominal, and liver metastases should be reserved solely for this type of case

In most instances the surgical procedures resorted to are in line with the accepted thought by those who are doing a greater volume of work in the larger clinics The operative results, very good as they are, may be misleading because of an inadequate follow-up, which may very well be done at a later date

SEE PAGE 1780 FOR ANNOUNCEMENT CONCERNING THE 1949 DISTRICT BRANCH MEETINGS

EXPERIENCE WITH THE BARTON FORCEPS IN A SMALL URBAN HOSPITAL

LYMAN G BARTON, JR, M D, F A C S, Plattsburg, New York

(From the Champlain Valley Hospital)

SINCE all previous reports on the use of the Barton forceps have emanated from large teaching institutions, a comparative study from the small urban community which might almost be termed the birthplace of the Barton forceps may be of some value One criticism of the Barton forceps has been that, while it might have a limited use in the hands of skilled obstetricians, it was no instrument for the general practitioner The results obtained in this small institution, Champlain Valley Hospital, would tend to disprove that statement, since all deliveries here were performed by men who are in no sense specialists but have become familiar with the use of the forceps either from instruction by the inventor or, in an occasional instance, by the writer Any apparent undue enthusiasm for the forceps exhibited by the writer can be perhaps pardonably excused on the basis of filial onde

Since, to date, any statistical study tends to upport the superiority of the forceps in properly elected cases, it seems unfortunate that either om ultraconservatism or lack of familiarity ith the instrument some obstetricians continue use what should be obsolete methods of deliv- y The late Dr DeLee in commenting on rceps deliveries once claimed that he could ef- ct any delivery with classic forceps as well as th any modifications By analogy one can remove an inaccessible nut with a hammer and cold chisel but how much harder it is on the nut

The one feature most stressed by the late Dr Barton was the damage done to the fetal head, particularly tentorial tears, resulting from the tangential force exerted by improper cephalic applications This force, plus the force exerted by traction in an improper axis by the classic forceps, even with axis traction, is undoubtedly responsible for varying degrees of intracranial damage Beyond dispute the ideal forceps delivery is one obtained by perfect cephalic application followed by traction in the pelvic curve allowing rotation to occur where it should in that particular pelvis In the writer's experience midpelvic arrest occurs in a very high percentage where this ideal delivery cannot be performed with the classic forceps

According to Caldwell, Molov, and D'Esopo, gynecoid and android types of pelves transverse positions occur in approximately 70 per cent of the cases, and it is only in the anthropoid types of pelves with the long oval inlet that the oblique anterior and posterior positions occur [1] Since the Barton forceps was designed particularly for transverse arrests and is the only instrument that permits an exact cephalic and pelvic application at the same time, it should follow that the Barton forceps are indicated in approximately 70 per cent of all midpelvic arrests While it is very easy to obtain an exact cephalic application on an unengaged or floating head with the Barton forceps and also to obtain traction in the axis of the superior straight, this procedure is no longer considered good practice and should not be attempted

While the Barton forceps was designed primarily for use in arrests in the transverse or posterior occiput positions, the writer has on more than one occasion failed to obtain a satisfactory cephalic application in the so-called anterior position with the classic forceps but has obtained a good cephalic application with the Barton forceps The expression "so-called anterior position" is used since the occiput is really just as near the transverse position as it is the anterior position Consequently, in attempting a biparetal application with the classic forceps the instrument has to be rotated, losing the pelvic curve in exact proportion to the degree in which it is rotated and becoming, to all intents and purpose, a straight forceps Actual complete rotation of the occiput to the arch is the last thing to occur in the large majority of cases, and it is only after this has occurred that the ideal combination of a perfect cephalic and pelvic application can be obtained with the classic forceps This may sound radical but nevertheless has been our experience

Technic

The actual method of application and use of the Barton forceps has been adequately described elsewhere [2] However, there are a few minor points which might be worth mentioning even if they may seem truisms Many of these obviously apply to all forceps deliveries First it should be determined that forceps delivery is indicated—briefly that labor has been arrested after a fair trial—secondly, that this arrest is due not to absolute disproportion or restraining soft parts but rather to either faulty position or

mentioned There were seven cases in this group They included those with retinopathy, and all had one or more of the complications mentioned above, including both cases of Kimmelstiel-Wilson syndrome They were those with the longest duration of their illness—an average of ten years They were treated continuously for an average of eleven months, and all received 12 tablets daily The petechiae counts varied downward and upward during the course of treatment, but the trend was downward However, the count never reached normal, and increases in dosage resulted in no further improvement The final average count was 40 The retinopathy was not improved in a single case At the end of the course of treatment all still had massive petechialization of the forearm from the cuff, but to a lesser degree

Cases with 3-Plus Capillary Fragility—These had from 50 to 74 petechiae before treatment There were six cases in this group Only one had any complication, a cataract and recurrent cheilosis They had had their illnesses for an average of five years (except for one case who had had it for twenty-five years) These were treated for an average time of five months and received 9 tablets daily During this time there was a steady downward trend in the capillary fragility, and it reached an average level of 36 Higher dosage resulted in no further improvement

Cases with 2-Plus Capillary Fragility—These had from 20 to 49 petechiae before treatment There were seven cases in this group, of which two had complications (both hypercholesterolemia) The average duration of their diabetes was six years They were treated for an average of six months, and most of them took 3 tablets daily, a few 6 tablets There was a steady downward trend of the petechiae count to normal, reaching an average of 12 All cases showed as few as three or four petechiae at one or more times

Of the five patients with hypertensive disease, two fell into the 4-plus capillary fragility group and three into the 3-plus The initial petechiae count was an average of 55 They received the medication for an average time of eight months, and most responded to a dosage of 3 tablets daily All attained normal petechiae counts at one or more times, including the patient with azotemia, and the final average count was 11 All showed a wide fluctuation in the petechiae throughout treatment

Summary

Twenty patients with diabetes mellitus and five with hypertensive disease were studied for abnormal capillary fragility Ten of the diabetics had complications, including five with retinopathy One hypertensive had azotemia

The extent of the capillary fragility was graded as to severity All were assumed to be free of scurvy before treatment because of either adequate plasma vitamin C levels or absence of clinical signs

All were treated for an average of eight months with hesperidin-C, a preparation thought to have vitamin P activity

Of the diabetics, those with the most abnormal capillary fragility were on the whole those with complications, with retinopathy, and with the longest duration of the disease With high dosage for a long period these patients showed a diminution in the capillary fragility from a 4-plus extent to a 2-plus extent. Cases with a pretreatment capillary fragility of a 3-plus degree showed improvement to the same level Patients with mildly abnormal capillary fragility (2-plus) responded to small doses and showed a return to normal No improvement in retinopathy occurred

Of the hypertensives, all showed a good response to treatment after eight months, regardless of the severity of the initial capillary fragility

There were no toxic reactions to the hesperidin-C

Conclusions

1 Severity of abnormal capillary fragility in diabetes mellitus is directly related to the duration of the disease and to the presence of complications and of retinopathy

2 Markedly abnormal capillary fragility in diabetics responds to a high dose of hesperidin-C over a long period of time but does not reach a normal state Nor does moderately abnormal capillary fragility

3 Mildly abnormal capillary fragility in diabetics responds to hesperidin-C and becomes normal

4 Diabetic retinopathy is not improved by hesperidin-C

5 Abnormal capillary fragility in hypertension becomes normal with hesperidin-C therapy During the course of treatment there is a wide fluctuation in the extent of the capillary fragility

6 Hesperidin-C causes no toxic reactions

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LYMAN G BARTON, JR , M D , F A C S , Plattsburg, New York

(*From the Champlain Valley Hospital*)

SINCE all previous reports on the use of the Barton forceps have emanated from large teaching institutions, a comparative study from the small urban community which might almost be termed the birthplace of the Barton forceps may be of some value One criticism of the Barton forceps has been that, while it might have a limited use in the hands of skilled obstetricians, it was no instrument for the general practitioner The results obtained in this small institution, Champlain Valley Hospital, would tend to disprove that statement, since all deliveries here were performed by men who are in no sense specialists but have become familiar with the use of the forceps either from instruction by the inventor or, in an occasional instance, by the writer Any apparent undue enthusiasm for the forceps exhibited by the writer can be perhaps pardonably excused on the basis of filial pride

Since, to date, any statistical study tends to support the superiority of the forceps in properly selected cases, it seems unfortunate that either from ultraconservatism or lack of familiarity with the instrument some obstetricians continue to use what should be obsolete methods of delivery The late Dr DeLee in commenting on forceps deliveries once claimed that he could effect any delivery with classic forceps as well as with any modifications By analogy one can remove an inaccessible nut with a hammer and cold chisel but how much harder it is on the nut

The one feature most stressed by the late Dr Barton was the damage done to the fetal head, particularly tentorial tears resulting from the tangential force exerted by improper cephalic applications This force, plus the force exerted by traction in an improper axis by the classic forceps, even with axis traction, is undoubtedly responsible for varying degrees of intracranial damage Beyond dispute the ideal forceps delivery is one obtained by perfect cephalic application followed by traction in the pelvic curve allowing rotation to occur where it should in that particular pelvis In the writer's experience midpelvic arrest occurs in a very high percentage where this ideal delivery cannot be performed with the classic forceps

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lack of "vis-a-tergo" An exact diagnosis of position of the presenting part must then be made, *feeling an ear if necessary* One must be as certain as possible that one is not dealing with a pelvis in which the outlet is smaller than the inlet (This is one instance in which irretrievable trouble may develop) The cervix should be completely dilated and preferably retracted over the head Traction should be moderate and applied only during uterine contractions If descent and rotation do not occur, attempts at delivery by this method should be abandoned before damage has been done

The above naturally applies to all forceps deliveries In using the Barton forceps particularly, ambidexterity is useful Right-handed individuals should be trained from the start in making all vaginal and rectal examinations with the left hand, whereas the reverse would be true in the left-handed person *The anterior blade* of the Barton forceps is always introduced first, and this maneuver alone is often sufficient to convert a posterior occiput to a transverse occiput as well as to overcome an anterior asynclytism by bringing the sagittal suture exactly in the midline of the superior straight It is immaterial whether the anterior blade is swept over the occiput or the synciput If the anterior blade is to be swept around the right side of the pelvis, for instance over the occiput of a right occiput transverse, it is more convenient to use the left hand as the vaginal hand, whereas the right hand is used in sweeping the blade around the left side of the pelvis In introducing the posterior blade the tip of the blade should be kept close to the posterior side of the fetal head, and at times it is necessary to point it slightly lateral to the promontory, later moving the blade back into the midline after it has been introduced This maneuver makes it a bit easier to place the blade exactly between the fetal head and the sacrum During the introduction of either the anterior or posterior blade it may be necessary to dislodge the fetal head very slightly upward so that the blades will slip into place easily The maneuver suggested by Studdiford for obtaining flexion of the head is very useful, and if good flexion is not already present, it should be used before traction is exerted[3] The posterior fontanelle should always be palpable exactly between the two blades and close to their junction

As to the question of direct traction versus "axis traction," the experienced operator who knows exactly in which direction traction should be applied and also just when rotation should occur can dispense with the axis traction bar The average operator, however, should be more successful using the axis traction bar which is so constructed that it becomes, in effect, a universal joint and permits the head to rotate whenever it should The writer uses what might be termed a compromise between the two methods, exerting traction on the bar with one hand and steadying the handles with the other In this manner one is not so apt to exert too much force

While the forceps were never designed for what might be termed "artificial rotation" of the head, viz , rotation to an anterior position above the outlet, nevertheless, if and when this is thought to be indicated, rotation with the forceps is much easier than manual rotation followed by application of classic forceps, which is, in our experience, never ideal at that level

Results

As previously stated, this report is based on experience in a small urban community, all deliveries were performed by members either of the active or courtesy staff The cases represent private patients as well as cases sent in from a fairly wide radius because of complications Over the ten-year period 1936 through 1945 there was a total of 3,707 deliveries Of these 509, or 13 7 per cent, were delivered by operative measures The frequency of various types of operative deliveries is shown in Table 1

TABLE 1 —FREQUENCY OF TYPES OF OPERATIVE DELIVERIES IN 509 CASES

Deliveries	Number of Cases	Per Cent
Cesarean section	50	1 3
Breech extraction	14	0 38
Version and extraction	9	0 24
Craniotomy		
High forceps	10	0 26
Midforceps	134	3 6
Low forceps	282	7 6

The rather high incidence of high forceps deliveries is to be regretted, these deliveries occurred in the earlier years of this report, and half of them were done by one man with no record of the type of forceps used Three stillbirths resulted, two from intracranial damage and one from asphyxia from a prolapsed cord There was one maternal death in this group due to postoperative pneumonia

The relatively low incidence of cesarean sections, versions, and breech extractions should be ample proof that no effort was made to avoid the responsibility or lower the frequency of midforceps deliveries I believe that the indication for midforceps deliveries in this clinic approximated those in the average clinic, i e , midpelvic arrest after a fair test of labor, usually about a two-hour second stage There were 110 mid-

forceps deliveries in which the Barton forceps were used, while the classic forceps were used in 24 cases This represents quite closely the relative frequency in which the head descends into the midpelvis in a transverse position as stated by Caldwell *et al*, classical forceps being used for the smaller number of anterior positions No distinction is being made in this report relative to just what type of forceps was used once rotation was complete and the head was on the perineum Also, transverse and posterior occiput midpelvic arrests have not been subdivided, since posterior occiput positions almost automatically become transverse positions during application of the Barton forceps

In the 110 midforceps deliveries with Barton forceps there were two neonatal deaths, one due to impacted shoulders and one due to asphyxia This represents a fetal mortality of 1 8 per cent In the 34 midforceps deliveries with classic forceps there were likewise two stillbirths representing 5 8 per cent mortality In one of these there had been failure at forceps delivery in the home but easy delivery in the hospital, the time of fetal death was not stated

The fetal mortality for the group as a whole was 2 7 per cent, an incidence which certainly compares favorably with the report from one institution where the Barton forceps is relegated to the museum and a fetal mortality rate of 22 8 per cent in midforceps deliveries is admitted There was one maternal death following midforceps deliveries with the Barton forceps [4] This occurred on the fourteenth postpartum day from pulmonary embolism as the patient was dressing preparatory to going home The 282 low forceps deliveries resulted in seven fetal deaths, an incidence of 2 4 per cent Thus, the total of all forceps deliveries was 426 with a total of 11 stillbirths or neonatal deaths, a gross fetal mortality of 2 5 per cent The Kielland forceps has never been used in this institution

Since this report is submitted in an effort to substantiate our belief in the superiority of the Barton forceps in properly selected cases, no analysis has been included here of our results in versions and breech extractions with, at times, forceps to the aftercoming head Suffice it to say that our results there are nothing of which to be proud there being a 17 per cent incidence of fetal deaths from intracranial damage in this type of delivery

Conclusion

In conclusion, we admit that this series is too small to constitute a basis for any very definite observations However, we submit this report in the hope that it may encourage the wider use of the Barton forceps in the class of cases for which it was originally designed No forceps, regardless of how cleverly it is conceived, will overcome absolute disproportion, and it is only by careful cephalic application and, above all, avoidance of undue and faulty traction that one can hope to lower the incidence of intracranial damage

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TREAT LEUKEMIA WITH RADIOACTIVE PHOSPHORUS

Encouraging results in treating one form of leukemia, or cancer of the blood-forming tissues, with radioactive phosphorus, are reported on the basis of studies made at the Radiation Laboratory and Divisions of Medical Physics and Radiology, University of California, Berkeley and San Francisco

Writing in the issue of June 18 of the *Journal of the American Medical Association*, Drs John H Lawrence, Berkeley, B V A. Low-Beer, San Francisco and James W J Carpender, Chicago, say that out of 100 patients treated for chronic lymphatic leukemia with radioactive phosphorus and x-rays, one third were alive five years after the onset of the disease "When compared with five-year end results in other types of cancer, these results are relatively good"

This type of leukemia is one of the major forms of the disease, although not the most common. It may develop over a period as long as two years, in contrast to the terrible rapidity with which acute leukemia progresses

A CLINICAL EVALUATION OF ETHINYL ESTRADIOL IN THE MENOPAUSE

HILLIARD DUBROW, M D , CHARLES S POOLE, M D , and ROBERT I WALTER, M D , New York City

(*From the Gynecological Clinic, Mount Sinai Hospital*)

ETHINYL estradiol was produced by Inhoffen and Hohlweg in 1938 by the introduction of an ethinyl group into the seventeen carbon atoms of alpha estradiol [1] This synthesis markedly increased the oral activity of alpha estradiol, and it has been estimated that estinyl estradiol is 15 to 50 times more potent than alpha estradiol orally, and 4½ to 20 times more potent than diethylstilbesterol

In 1941, one of us (R I W) was coauthor of one of the early clinical reports on the use of ethinyl estradiol in the menopause [2] It was shown that ethyl estradiol is (1) highly potent orally, (2) capable of relieving menopausal symptoms in a high percentage of patients in four to seven days on an average daily dosage of 0 45 mg , and (3) capable of inducing full estrogenic effects in the genital tract as judged by vaginal smear and biopsy studies However, because of the high incidence of toxic symptoms, chiefly gastrointestinal, ethinyl estradiol was not recommended for general clinical use Subsequent reports have indicated that toxic symptoms can be reduced by reduction in dosage without loss of beneficial effect [3–5]

At this time, we wish to report our results with ethinyl estradiol in the treatment of a series of 34 menopausal patients Nineteen were in the natural menopause, 13 were surgical castrates, and two were x-ray castrates

Dosage

The initial dosage in all patients was 0 05 mg daily For the majority of patients this was also the optimum maintenance dosage (Table 1)

TABLE 1 —DOSAGE NECESSARY FOR OPTIMUM RESULTS

Dosage Necessary for Optimum Results (Mg. per Day)	Number of Patients	Percentage
0 02	2	6
0 05	22	65
0 10	9	26
0 15	1	3

Ethinyl estradiol (trade name Estinyl) was generously supplied by the Schering Corporation Bloomfield New Jersey

Side-effects

Three patients noted vaginal spotting while on maintenance dosage The bleeding was minimal and stopped with the discontinuance of therapy In no instance was it necessary to withhold therapy because of gastrointestinal symptoms. This is in sharp contrast to the high incidence of toxic symptoms previously reported from this clinic [2] It is clear, as has been noted by others, that ethinyl estradiol in high doses will cause gastrointestinal irritation which is almost completely eliminated by reducing in dosage Fortunately, a maintenance dosage of 0 05 mg gives good therapeutic results and is associated with low toxicity

Results

Satisfactory results were obtained in 33 of the 34 patients treated (Table 2)

TABLE 2 —RELIEF OF SYMPTOMS

Relief of Symptoms	Number of Patients	Percentage
Complete	29	85
Moderate	4	12
Failure	1	3

Summary

1 In a series of 34 menopausal patients, treated with ethinyl estradiol, there was complete relief of symptoms in 29, moderate relief in four, and one failure

2 The average maintenance dosage was determined as 0 05 mg daily

3 No toxic symptoms occurred in a maintenance dosage of 0 05 mg daily

4 Ethinyl estradiol is a potent, orally active estrogen, combining a high therapeutic efficiency with a low incidence of toxic symptoms

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THE USE OF AN INTERMITTENT AMBULATORY SCHEDULE OF PENICILLIN IN OIL AND WAX IN THE TREATMENT OF EARLY LATENT SYPHILIS AND SYPHILIS IN PREGNANCY

GEORGE E PEABODY, M D , and BRUCE WEBSTER, M D , New York City

(From the Department of Medicine of the New York Hospital and Cornell University Medical College)

PENICILLIN in oil and wax probably will not feature in the treatment of syphilis in the future due to the more recent development of improved action-delaying vehicles Results from its use to date, however, indicate the therapeutic efficacy of the intermittent administration of penicillin to ambulant patients with various forms of syphilis and thus warrant evaluation of its current status

During the past two years, penicillin in oil and wax has been used in the syphilis clinic of the New York Hospital in the treatment of early latent syphilis and syphilis in pregnancy on an intermittent ambulatory schedule During this period, 61 cases of early latent syphilis and 57 cases of syphilis in pregnancy have been treated on a schedule of 600,000 units of intramuscular penicillin in oil and wax twice a week for six weeks, with concurrent intramuscular bismuth subsalicylate 0 2 Gm weekly for twelve weeks (Four of the 57 maternal syphilis group had received no prior therapy for early latent syphilis and are included in the early latent syphilis total as well)

Early in 1946, at the time this schedule was devised, no information was available as to the efficacy of penicillin in latent syphilis The bismuth therapy was added in an effort to prolong the time period over which treatment was carried out In July, 1948, this agent was omitted from the treatment schedule, and subsequent observation has indicated that the efficacy of the treatment regime was not influenced thereby

Success of treatment has been evaluated on the basis of rapidity of persistent seroreversal and lack of subsequent infectious or serorelapse in cases of early latent syphilis and the delivery of syphilis-free infants in cases of maternal syphilis However, it must be realized that syphilis in pregnancy is not an ideal form for the evaluation of therapy, since most of these patients, if previously treated, will give birth to normal infants

Results

Of the 61 early latent syphilis patients treated, 53 (87 per cent) have shown partial or complete seroreversal, 38 (62 per cent) have become totally seronegative, while 8 (13 per cent) remain seropositive The average time of beginning seroreversal was three months, with complete seroreversal achieved in about five and one-third months Timing the follow-up from the beginning of treatment, there were 30 cases which were followed between twelve and twenty months, 18 from six to twelve months, and 13 cases less than six months Twenty-two cases of the year-or-more follow-up group (73 per cent) have attained complete seroreversal, and four more have shown a decrease in titer The average time of beginning seroreversal in this group was three and one-half months, with complete seroreversal in a total of six and one-half months Of the 18 cases in the six-to-twelve months group 13 (72 per cent) became seronegative, and the remaining five have shown a definite decline in titer The average time of beginning seroreversal in this group was two and one-half months, with complete seroreversal in four months Of the 13 cases followed less than six months since the beginning of treatment, three have so far become seronegative, and six more now show a decreased titer The three cases becoming seronegative did so in an average of two months None of these cases has had a subsequent relapse, either infectious or serologic, following treatment

The 57 cases of maternal syphilis treated with penicillin in oil and wax during their pregnancies include six with previously treated secondary syphilis, four untreated and six treated early latent syphilis, four untreated and 27 treated late latent syphilis, two untreated asymptomatic neurosyphilis, one treated tabes dorsalis, and one untreated and six treated latent congenital syphilis Of the 11 cases not treated before four were patients with early latent syphilis who became seronegative, while one with late latent syphilis showed partial seroreversal Ten of the total of 57 became seronegative, including four cases of untreated early latent syphilis, two cases of secondary syphilis recently treated and with partial seroreversal already, three cases of treated late latent syphilis, and one of latent congenital syphilis previously treated Three cases of late latent syphilis, two previously treated, showed incomplete seroreversal Twenty-five of the 57 cases had been treated

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before and were seronegative throughout, being re-treated during their pregnancy as a precautionary measure In none of these cases were treatment reactions, such as local discomfort at the site of injection or hypersensitivity reaction, significant enough to necessitate cessation of therapy No syphilitic infants were delivered in any case

In addition to its use in the treatment of early latent syphilis and syphilis in pregnancy, penicillin in oil and wax on the same treatment schedule was used for other types of syphilis in the syphilis clinic of the New York Hospital, either because of the convenience of ambulatory treatment in certain cases of infectious syphilis, neurosyphilis, or late latent syphilis, or as alternative therapy because of arsenical reactions in cases of late latent syphilis

Of 17 cases of early infectious syphilis so treated, two cases were of seronegative primary syphilis, six seropositive primary syphilis, and nine secondary syphilis Fourteen of the 17 are now seronegative The three cases of seronegative syphilis achieved a rapid, complete, and sustained clinical response Five cases with seropositive primary syphilis began seroreversal in an average of one and one-half months, becoming seronegative in an average of three months Six secondary syphilis patients began seroreversal in an average of two and one-third months and achieved complete seroreversal in four months This represents for 11 early infectious cases an average beginning seroreversal in two months with complete seroreversal in three and one-half months Of the remaining three of the 17 cases, one is still under treatment, one has lapsed from follow-up, and one remains seropositive after six months

Of the seven cases of neurosyphilis treated under this regime, all have shown improvement in the cerebrospinal fluid, and the symptomatic cases have experienced relief of symptoms The results of this scheme of treatment are comparable to those obtained by the administration of four to six million units of crystalline penicillin-G over a two-week period

Twenty-two of the cases of previously untreated late latent syphilis and three cases of late benign syphilis were treated with penicillin in oil and wax The results in these cases, in terms of reduction in titer or clinical response were comparable with those obtained by intensive penicillin regimes (4,200,000 units crystalline penicillin-G over two weeks)

Discussion

The significance of our results must be considered in terms of the limited number of cases treated On the basis of the observations listed above, it would appear that penicillin in oil and wax, given in doses of 600,000 units twice a week for six weeks with concurrent bismuth subsalicylate in oil in 0 2-Gm doses, one a week for twelve weeks, is an effective agent in the treatment of early latent syphilis and compares favorably with the other commonly used treatment schemes The Cooperative Clinical Group reported that of 514 arsenic-treated early latent syphilis patients, one half of them showed satisfactory seroreversal and one third exhibited unsatisfactory results [1] A recent report of 134 cases of early latent syphilis treated triweekly with arsenicals revealed that during a three-year period of follow-up 33 became seronegative, and 41 more showed a reduction of titer [2] Therefore, the 72 per cent seroreversal obtained in 48 cases of early latent syphilis treated with penicillin in oil and wax in the present study and followed for over six months is considerably better than the results given by arsenotherapy Further, this treatment regime has the advantage of a negligible reaction hazard and relative brevity

The necessity of the re-treatment of previously treated maternal syphilis during pregnancy is now open to question [3] However, if a policy of treatment of such cases is adopted, penicillin in oil and wax in the schedule described above would appear to be a safe and satisfactory method of carrying out the treatment on an ambulatory basis The absence of syphilitic infants in 57 cases so treated compares favorably with all other treatment schedules for this

Although in the present study emphasis was not placed on the use of this treatment schedule in infectious or central nervous system syphilis, preliminary results would indicate that it is a satisfactory scheme for the treatment of these forms of syphilis if more orthodox penicillin schedules cannot be carried out

Summary

1 Forty-eight cases of early latent syphilis were treated with an intermittent ambulatory scheme of 600,000 units of penicillin in oil and wax twice a week for six weeks with concurrent dosage of 0 2 Gm of bismuth subsalicylate in oil once weekly for twelve weeks and followed for six months or more in the syphilis clinic of the New York Hospital Of the entire group, 72 per cent showed a sustained seroreversal, and 75 per cent of the remaining cases exhibited a drop in titer following treatment

2 The same treatment schedule administered to 57 cases of syphilis in pregnancy apparently provided adequate protection for the fetus, since no syphilitic infants resulted

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THE MIGRAINE PROBLEM

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THE most dramatic form of chronic headache is migraine The unique visual phenomena which so often precede an attack, the fact that the pain is usually limited to one side of the head, and the vomiting and general prostration which accompany most attacks have long made it an object of interest, and the literature on migraine is almost as great as that on all other types of headache combined

Although there is little reliable data concerning its frequency, estimates have been made that about 8 per cent of the population suffer from this type of headache Migraine often begins in childhood, and about half the cases report their first attack before fifteen years of age We have seen patients whose first attack started before five years of age and others whose headaches started after the age of sixty Women outnumber men in seeking relief in the disease but not to the extent reported in the literature About 60 per cent of the migraine cases report a history of migraine in their family

Physiology and Causative Factors

The underlying pathophysiology causing migraine is unknown A number of factors have been indicated However, it is quite clear that no single process or mechanism is responsible in all cases of migraine At the present time most investigators are in favor of explaining the prodromata, course, symptoms, signs, and sequelae of the disorder on the basis of changes in the cerebral and meningeal circulation.[1] Proponents of the vascular theory believe that an initial cerebral vasoconstriction of the cranial arteries produces visual and other preheadache phenomena This prodromal period is followed by the pain associated with the migraine attack which is caused by dilatation and distention of relaxed cranial arteries, primarily branches of the external carotid

Persistent vasodilatation of the cranial arteries results in a thickening of their walls and often in edema of surrounding tissues This causes the soft collapsible arteries to become rigid and pipelike and the pain to become a steady ache instead of the throbbing, pulsating type which is seen in its inception Secondary to such prolonged effects of pain and distention of the cranial arteries is contraction of the skeletal muscles of the head and neck This in itself becomes painful and adds a component to the migraine headache which may outlast the original vascular pain

Efforts to correlate biochemical changes in people suffering with migraine headaches have been unsatisfactory Studies on blood, urine spinal fluid, basal metabolic rate, etc , in most instances have failed to disclose any results which deviate significantly from the normal

The importance of psychologic factors in migraine has long been recognized Personality studies have indicated that many of these people are meticulous, neat in appearance, rigid in their thinking, and exceedingly aggressive toward their environment In their earlier life history, it is often noted that they have had considerable insecurity with resulting tensions which are manifested in inflexibility, overconscientiousness, meticulousness, perfectionism, and resentment [2]

It would seem from the reports of many authors and our own experience that emotional factors can be the trigger which sets off the migrainous attack [3] However, whether there is a specific personality type which suffers from migraine is still a moot question. Most of the cases which we have studied reveal unusual ambition, aggressiveness, exactness, and hostility

Psychologic investigations, such as Rorschach studies, tend to bear out the clinical impression, i.e rigidity, perfectionism, etc , regarding the personality features in these people [4]

Symptoms

A most extraordinary feature of the migraine syndrome is the fact that it is not limited to the head but may manifest itself in widespread disorganization of bodily function such as visual disturbances, gastrointestinal disturbances, etc

The attacks themselves are featured by their periodicity and head pain, which is unilateral at the onset, most often throbbing in character, and are associated with nausea, vomiting, photophobia, and mood changes The headaches may be preceded by visual symptoms such as scotomas, diplopia or hemianopia, gastric disturbances, and paresthesias The head pain may be localized to any site of the head, face, or neck but is most often reported in the orbital, frontal, and temporal regions The duration of the attacks may vary from minutes to days They commonly occur in relation to a let-down period such as week ends, holidays, or social engagements Disarrangement of other bodily

functions are numerous, vertigo, chilliness, edema, tremor, abdominal pain and distention, diarrhea, polyuria, pains in the extremities, and marked mood disturbances may be associated with the headache or in some cases may act as migraine equivalents

In summarizing such a clinical picture, it becomes evident that we are dealing with individuals who have a labile physiologic mechanism which makes them sensitive to any emotional stress During these states such labile mechanism can set off multiple physiologic reactions which we call the migraine syndrome, the headache itself being the most prominent symptom in a widespread pattern of dysfunction

Due to the variability of these attacks, many names have been attached to these episodes, such as menstrual headache, week-end headache, menopausal headache, constipation headache, histamine headache, and atypical facial neuralgia

Diagnosis

The diagnosis of the underlying cause of headache, or in this case migraine headache, in every patient requires careful physical and neurologic examination with ancillary tests such as roentgenologic examination, electroencephalogram, and any other laboratory studies which may be indicated However, it is just as important that the patient be studied adequately from the psychologic point of view because headache, particularly chronic headache, is truly a psychosomatic problem, and neither the physical nor the psychologic aspects can be neglected when one is attempting to formulate a diagnosis of this symptom

The diagnosis of migraine headache is based essentially on the clinical history Riley and his associates found that routine methods of laboratory investigations of patients suffering from migraine do not supply any information of positive diagnostic value [5]

Engel and his associates were the first to detect that electroencephalographic changes may accompany visual scotoma preceding migraine headache [6] However, during the attack of migraine there has been little change in the electroencephalographic records

It is important to distinguish migraine from similar symptoms which occur on some other basis Tumors, particularly angiomas which most often appear in the parietal-occipital region, may lead to attacks of headache, nausea, and vomiting, sometimes associated with visual hallucinations In these cases, careful perimetry usually shows a visual field defect which persists between the attacks Often convulsive seizures are part of this picture, and sooner or later intracranial pressure may develop as the tumor exerts pressure or encroaches upon neighboring parts of the brain Sometimes in the case of angioma a cranial bruit may be heard Migraine may simulate or be simulated by an aneurysm of the internal carotid artery which presses on a nerve In these cases attacks of visual disturbance, preceded by scotomata, may occur in the affected eyes together with headache Persistent field defect and reduction of visual acuity or extraocular palsies may be associated with other focal signs in the case of the aneurysm

Migraine is confused with epilepsy occasionally since visual hallucinations may constitute the prodromal symptoms of both The loss of consciousness, the rapidity of the attack, and the clinical description all are used in differentiating between these syndromes

Transitory attacks of paresthesia, weakness, and aphasia may occur in migraine without headache Differentiation of this from disseminated sclerosis or cerebral vascular lesions may at times be difficult However, history and neurologic examinations usually reveal findings which differentiate these conditions

Of course, headache occurring alone must be distinguished from pain in the head due to other causes In such headaches we must distinguish the various neuralgias, neuritides, diseases of the bones of the cranium, meningeal irritation, fibromyositis, etc

Headache associated with temporal arteritis may occasionally be confused with migraine [7] This condition usually occurs late in life, and the arteries in the temporal fossa become distinctly palpable during the time of headache The lesion is thought by some to be one of chronic periarteritis

People who have migraine headaches may occasionally develop cerebral or subarachnoid hemorrhage and thrombosis The changes in the caliber of the intracranial vessels, although abbreviated, may lead to permanent changes in their walls and the precipitation of vascular insults In some cases, relaxation of the vessel walls, often associated with hypertension, results in hemorrhage and in others results in severe spasm leading to thrombosis We have seen migraine associated with or develop in individuals who suffer from hypertension, multiple myeloma, Paget's disease, tuberculosis, Raynaud's disease, Ménière's disease, and rheumatic fever

Treatment

In approaching the therapeutic problem posed by the headache patient, the physician has four main methods which can be used individually or in any combination pharmacotherapy, psychotherapy, physiotherapy, and surgery He may attempt either to afford the patient symptomatic

relief or to prevent the occurrence of a headache entirely The latter is obviously the preferable result if it is attainable, but most of our therapy today falls short of this goal

The number of therapeutic agents which have been used in the treatment of these patients indicates the unsatisfactory state of our knowledge Many reports have been made which hailed brilliant results for some new therapeutic agent, but it seems that these treatments are only successful in the hands of the individual therapist With the exception of the ergot derivatives, which are valuable only in the symptomatic treatment of an attack, no one has as yet reported any medication which will cure migraine

In attempting to prevent the occurrence of headache entirely, several forms of therapy have been tried The problem has been approached surgically by removing various sympathetic ganglia, dividing meningeal and temporal arteries, and in some cases by cutting various nerves such as the greater superficial petrosal, etc Medically, such forms of therapy as thiocyanate, histamine, special diets, vitamin therapy, and desensitization to various allergens have all been tried with little success

It is well known that suitable psychotherapy may be of great value in reducing the intensity and frequency of migraine attacks and may even result in their disappearance for a considerable time We should emphasize that there is a large group of these patients who will respond satisfactorily to the type of psychotherapy which is well within the province of the general practitioner

The treatment of an individual attack of migraine (symptomatic treatment) as opposed to a type of treatment which prevents the occurrence of headaches entirely (prophylactic) is essentially one of pharmacotherapy We have tested a number of drugs in the symptomatic treatment of migraine in an effort to evaluate their relative efficacy The drugs we have used fall into four main groups vasoconstrictors, vasodilators, sedatives, and analgesics In testing these various drugs we concluded that ergotamine and its derivatives are distinctly superior in therapeutic efficacy to all other types of drugs [5] These reports are in accord with current opinion that ergotamine and its derivatives are unequalled in the symptomatic treatment of migraine

The clinical observation of the beneficial effects of ergotamine tartrate on the migraine headache has been confirmed by experimental evidence in the laboratory In the migraine attack the intensity of the pain closely parallels the amplitude of pulsations of the branches of the carotid vessels The therapeutic effect of ergotamine tartrate depends on its ability to produce prolonged vasoconstrictor action This has been demonstrated by direct observation on and photography of branches of the external carotid We have demonstrated by arteriography a similar vasoconstrictor effect of the drug on the internal carotid artery Other vasoconstrictor agents, such as pituitrin, ephedrine, dexedrine, and epinephrine, are not constant in their degree of vasoconstriction or duration of action and cannot be counted upon for therapeutic use

The results obtained by the use of ergotamine and its derivatives are still far from perfect, even when care is taken to give an adequate dose as early as possible after the onset of symptoms (Table 1) The results can be improved by having the patients who are not relieved after oral administration of the drug receive it by injection instead But this procedure again does not insure certain relief, and it has the drawbacks of technical difficulty, on the one hand, and an increase of the incidence of unpleasant side-effects, nausea and vomiting, on the other

TABLE 1.—EFFECTIVENESS OF VARIOUS DRUGS IN RELIEVING MIGRAINE ATTACKS IN 94 PATIENTS

Drug Types	Good Relief	Fair Relief	No Relief	Total Number of Trials
Ergotamine and derivatives	53%	20%	27%	161
Vasodilators	13%	22%	65%	31
Analgesics	21%	23%	56%	53

In the hope of improving the results obtained from ergotamine, we tried two modifications in the mode of administration first, it was administered in a rectal insert in combination with atropine, and second, it was given orally in combination with caffeine [8] We also used dihydroergotamine methanesulfonate (DHE-45), which has been reported to be more efficacious than ergotamine itself in relieving migraine attacks

By treating a number of patients with each of the drugs mentioned above for a long period of time to be sure of the degree of relief which each drug afforded, we were able to compare the efficacy of each of the various preparations which was used in turn on the same subject It appears that best results have been obtained by the combination of ergotamine and caffeine (cafergone) orally and by the use of rectal inserts containing ergotamine and atropine (Table 2) There is no apparent difference between the efficiency of these two preparations, and both seem distinctly superior to ergotamine tartrate by mouth and DHE-45 (dihydroergotamine methanesulfonate) by mouth

For parenteral use dihydroergotamine methanesulfonate (DHE-45) is the medication of choice in the treatment of migraine It is from

TABLE 2.—Cross Comparisons of the Efficacy of Several Drugs in the Treatment of Migraine

	Ergotamine Tartrate Superior	No Difference Noted	Ergotamine Tartrate Inferior
Ergotamine and caffeine	10%	35%	55%
DHE-45	25%	25%	50%
Rectal inserts	18%	18%	64%
	Rectal Inserts Superior	No Difference Noted	Rectal Inserts Inferior
Ergotamine and caffeine	31%	38%	31%
DHE-45	57%	43%	0
	DHE-45 Superior	No Difference Noted	DHE-45 Inferior
Ergotamine and caffeine	13%	27%	60%

five to ten times less toxic than ergotamine tartrate and should be given in doses at least twice as great as ergotamine tartrate

Summary

The mechanism which best explains the prodromata, course, signs, and sequelae of a migraine headache is one of changes in the cranial circulation Dilatation and distention of relaxed cranial arteries, primarily branches of the external carotid, cause the pain associated with the migraine attack

Personality traits of the migraine patient are unusual meticulousness, ambition, aggressiveness, exactness, and hostility toward their environment Such character traits lead to emotional tension which sets off widespread somatic disorganization of which the headache itself is the most prominent symptom

Diagnosis of migraine headache is essentially one of clinical history However, it is important to distinguish migraine from similar symptoms which occur on some other basis (i e tumor, aneurysm)

Symptomatic treatment of the migraine attack is essentially one of pharmacotherapy, and our best results have been obtained by use of ergotamine tartrate with caffeine orally or administered in combination with atropine

The present status of the migraine problem can be summarized by stating that we have reached a point in the therapy where in most cases the practitioner can modify the frequency and severity of the patient's headache However, complete therapeutic success with this tenacious symptom is something for the future

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HEALTH PROGRAM FOR SCHOOLS

Stating that the health of New York City's high-school students is far below par, Mr Anthony Campagna, member of the Board of Education of New York, outlined a five-point health program for the city's secondary schools, at the annual meeting and election of officers of the Bronx Tuberculosis and Health Committee, held April 27

Mr Campagna, in urging all voluntary health agencies in every borough to support the Board of Education in its current efforts to improve the health of teen-agers, cited the "distressing fact" that of all the high-school graduates who, in September, 1948, applied for admission to the New York State Maritime Academy at Fort Schuyler, the Bronx, 50 per cent had to be rejected because of physical defects, of which a majority were correctable.

Re-elected as chairman of the committee, which is a part of the New York Tuberculosis and Health Association, was Dr Nathan B Van Etten

In his report to the committee, Dr Van Etten stated that 9,119 chest x-rays had been taken by the committee during the past year and that 2,783 families and individuals had been aided with their health problems More than 50,000 persons, he said, had attended meetings, lectures, motion picture showings, and exhibits held under committee auspicies. During the year 3,842 parochial school pupils had received audiometer tests

Case Reports

CENTRAL PLACENTA PREVIA WITH MISSED LABOR

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(*From the French Hospital*)

A CASE is reported of a multiparous patient with intrauterine death of the fetus at term, retention of the infant for seven weeks, and its expulsion through a central placenta previa.

Case Report

A forty-year-old Puerto Rican registered at the French Hospital antepartum clinic in the fourth month of her fifth pregnancy Her past history was noncontributory Full-term pregnancies in 1931, 1934, and 1935 were uncomplicated with spontaneous deliveries following short labors in each case In 1935, she had an induced abortion in the second month of gestation

Her last menstrual period occurred September 8, 1944, making the expected date of confinement June 15, 1945 Menses had always been regular with an interval of thirty days At the time of registration (January 31, 1945), physical examination was unremarkable An ample gynecoid pelvis was noted with the size of the uterus corresponding to the period of amenorrhea Wassermann and Kline tests were negative Blood group was O, Rh positive Hemoglobin was 88 per cent

During subsequent clinic visits, the pregnancy seemed to proceed normally On May 20, one month before the estimated date of confinement, the patient was admitted to the hospital because of two days of painless vaginal bleeding with the passage of a few clots While in the hospital, she had a sudden gush of blood, amounting to about 500 cc At that time, the estimated fetal weight was 3½ pounds The fetal heart tones were of good quality The impression was that of possible placenta previa. Four days later, after cessation of bleeding, a vaginal examination revealed a firm external os that admitted a fingertip The cervical canal was 2 cm in length, and no placenta could be felt through it The patient was then discharged to the prenatal clinic

The pregnancy progressed uneventfully without further bleeding When seen in clinic on July 26, the patient's weight was 155½ pounds, 35½ pounds more than at the onset of pregnancy The baby was active At her next visit, August 15, she reported that the baby had not moved for two weeks There had been ten pounds weight loss during the preceding three weeks No fetal heart could be heard, and the uterus was irritable On August 27, abdominal palpation revealed crepitus of the skull bones A diagnosis of fetal death was made, and it was decided to await spontaneous onset of labor

The patient visited the outpatient department until September 19, at which time her weight was 137¾ pounds, eighteen pounds less than on July 26, when activity of the baby was last noted For two weeks she had had intermittent low abdominal and back pain At this examination, the uterus was the size of a seven or eight months pregnancy It was persistently tense, so that the presentation could not be determined. An x-ray demonstrated a dead fetus at term in left occipitoanterior position (Fig 1)

The patient was thought to be in early labor The first stage was desultory, lasting nineteen hours, with irregular lower abdominal pains and a continuous backache Throughout the first stage the uterus remained tense, and at no time was there any bleeding Caput was seen one hour after full dilatation The patient bore down well with her contractions, and the head delivered easily In spite of moderate traction on the head, the shoulders



FIG 1 Anteroposterior x-ray showing full-term fetus and central placenta previa.

could not be released The patient was then anesthetized, the posterior arm extracted manually, and the baby delivered after a two-hour second stage The child was a macerated 7 pound 2 ounce male

One-half cubic centimeter of pitocin was administered intramuscularly, and a gush of blood and amniotic fluid signalled the apparent separation of the placenta The uterus failed to contract under massage, and its flabby consistency was in marked contrast to its previous tonicity A small steady stream of blood flowed from the uterus The placenta was found to be in the lower uterine segment, still partially adherent A cleavage plane was readily found posteriorly, and a manual extraction was done The uterus contracted well after intravenous ergotrate Estimated blood loss was 200 cc The mother left the delivery room in good condition and had an uneventful postpartum course

Discussion

The fetus was delivered September 20 It was last known to be alive at the July 26 clinic visit The mother reported its death August 1 The x-ray demonstrates the distal epiphysis of the femur and the proximal epiphysis of the tibia, which suggests that the fetus was at term According to the patient's calculation, she was forty-six weeks pregnant at the time of fetal death Allowing a miscalculation of one month, the period of gestation was forty-two weeks

The placenta was found to be funnel-shaped with a slit, 8 cm. in length at its apex, through which the fetus had passed (Fig 2) The placenta was markedly attenuated and fibrotic. The greatest distance from the central slit to the margin was 16 cm , the least 14 cm. Its thickness was nowhere greater than 1 cm The membranes attached to the broad base of the cone also exhibited degenerative changes From its conical shape, it is obvious that the placenta could have been implanted only directly at the fundus or over the internal os, i e , central placenta previa. During the vaginal examination in May, one month before the estimated date of confinement, the placenta was not recognized because the layer of placental tissue was so thin and because cervical dilatation was insufficient to allow adequate examination The abdominal film helps to confirm the diagnosis of central placenta previa (Fig 1) A conical shadow can be seen over the internal os and extending over about one half of the inner surface of the uterus. This shadow corresponds to an x-ray that was taken of the placenta after its fixation in formalin

It may then be assumed that the fetus died at forty-two weeks gestation and was retained in utero for seven weeks before its spontaneous expulsion through a fibrosed central placenta previa.



FIG 2 Fibrotic, attenuated placenta showing slit at its center through which fetus passed.

LICENSURE OF ALL NURSES NOW MANDATORY

The New York Nurse Practice Act of 1938 which provides for mandatory licensing of all who nurse for hire became effective April 1 This act includes both the registered and the practical nurse classifications

While all states have licensing laws, licensure for both registered and practical nurses was mandatory heretofore only in Arkansas and Hawaii Thus New York State is among the first to pass this type of legislation. The New York State Nurses Association has been striving for years to activate this law, which is designed to protect those who employ nurses The act may also help to alleviate the nurse shortage since it provides for licensing, without further examination, of many out-of-state nurses who meet minimum requirements.

The State Education Department has processed more than 30,000 applications for licenses from both practical and registered nurses, many of whom were practicing within this State without a New York license

The Association urges that those who employ nurses to serve in private homes require evidence of licensure as a protection against those who misrepresent themselves as "trained nurses." This law does not prohibit care of the sick by relatives, friends or housekeepers —*Health News, April, 1949*

FOREIGN BODY (NEEDLE) IN HEART

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TRAUMA to the heart has been the subject of numerous reports, chiefly from the viewpoint of the surgeon. Elkin reviewed the general problem of wounds of the heart and stated that the electrocardiogram was of little use in establishing a diagnosis, since normal tracings may be obtained for several hours after injury [1] He did believe they were of use in determining the extent and progress of infarction after wound repair Most of the wounds discussed were knife wounds

Porter and Bigger described two cases of stab *wounds of the ventricle* [2] *The electrocardiographic* change of coronary thrombosis was believed due, in one case, to the severing of a branch of the left coronary artery and in the other to an area of ischemia caused by the repair of the wound As an interesting sidelight they noted the absence of pain in both cases and offered the explanation that, since the muscle fibers were severed, there could be no accumulation of pain-producing metabolites due to ischemia, because the fibers could not contract and hence would accumulate no metabolites

Another type of injury, described by Shapiro, was that of a hollow needle entering the heart via the venous blood stream, and a case similar to the one reported here was presented by Fair, who reviewed the literature of needle injuries to the heart [3,4] Unfortunately, no electrocardiograms were obtained on this case

The following is a case of trauma from a self-inflicted needle in the heart, complicated by a retrocardiac accumulation of pus or blood

Case Report

The patient was a thirty-four-year-old white man admitted on February 8, 1946, with a diagnosis of hebephrenic dementia precox On admission the patient was placed on special observation group because of continued expression of self-destructive ideas His physical examination revealed no objective findings other than an electrocardiogram which was suggestive of some myocardial impairment During his stay in the hospital he inflicted several puncture wounds with any object obtainable that was suitable for the purpose, such as the staples which bind magazines These he removed, straightened, and inserted into his abdominal wall with no subsequent complications

On May 13, 1948, at midnight, the patient was found in bed, comatose, skin cold and clammy, with pulse not perceptible and heart sounds scarcely audible Breathing was labored, and patient was cyanotic He was transferred to the medical service where he was placed in an oxygen tent and treated for shock

Physical examination revealed the patient to be in profound shock with blood pressure unobtainable

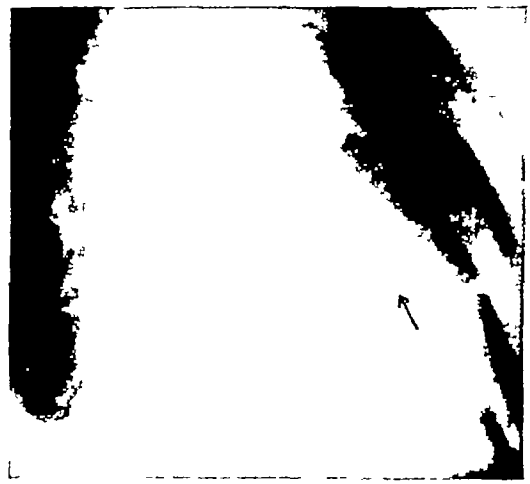


FIG 1 Rotation toward left posterior oblique (15 to 20 degrees)

There was a small, round, indurated area about 2 5 cm in diameter at the fourth left intercostal space in the midclavicular line which appeared to be tender, since patient responded somewhat to palpation in this area Closer inspection revealed what was interpreted as the site of a pinprick at the second left intercostal space, 3 5 cm lateral to the left

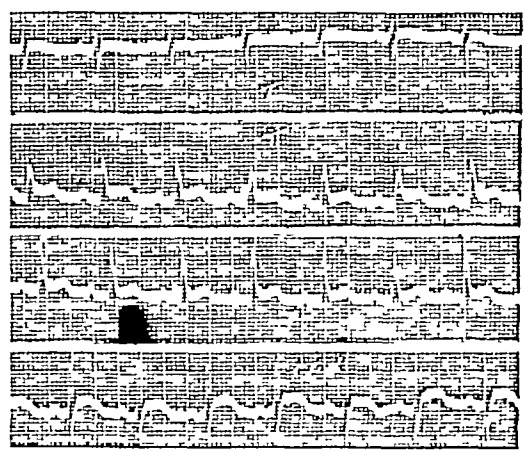


FIG 2 Tracing taken at 10 00 A.M. May 14 about ten hours after insertion of needle and prior to removal Tendency to right axis deviation was present previously, QRS is slurred and notched in leads 2 and 3, and there is an elevated ST segment in these leads ST segment shift is due to current of injury probably caused by subepicardial damage.

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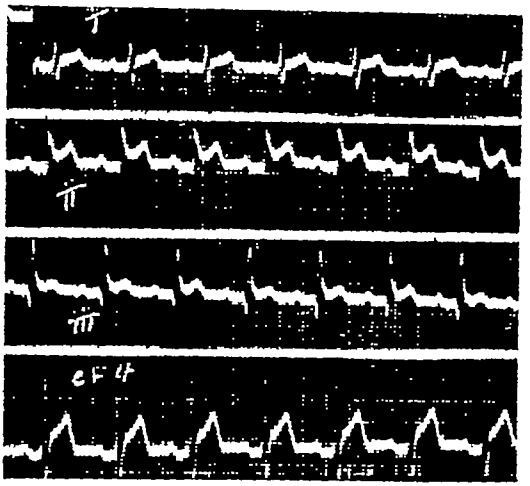


FIG 3 Taken at 2 00 P M May 14 immediately following removal of needle There is further upward displacement of ST segments in leads 2 and 3 and the appearance of a Q_3 changes seen in the evolution of a posterior wall infarction However, in CF_4 there is an elevation of the ST segment.

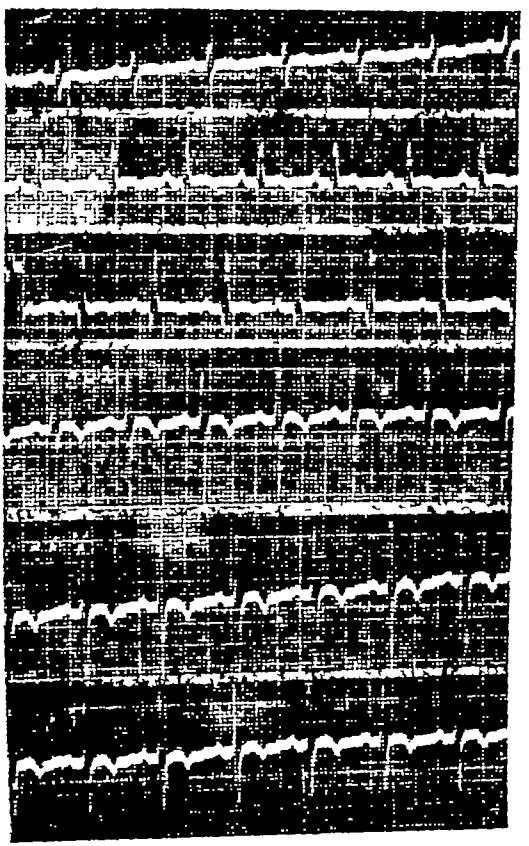


FIG 4. Electrocardiogram taken June 7 T is inverted in all leads This is the time when the retrocardiac mass was most prominent T waves in chest leads became upright when the mass resolved



FIG 5 (Top) Posteroanterior view of chest taken on June 9 showing shadow of posterior mediastinal mass protruding beyond left heart border (Bottom) Lateral view showing more clearly the globular mass behind the heart

parasternal line Bedside x-rays of the precordium disclosed the presence of a large needle which appeared to be in the heart musculature (Fig 1) An initial electrocardiogram showed ST segment changes in leads 2, 3, and CF 4 (Fig 2)

The patient responded gradually to treatment and on the next day an incision was made in the left fourth interspace about 1 5 cm lateral to the sternal border The eye of the needle was encountered at a depth of 1 cm Motion of the needle could be felt with the palpating finger which was synchronous with the heart beat The needle was grasped with a clamp and extracted Serial electrocardiograms were taken with the needle in situ and for several days after removal (Figs 3, 4)

The patient's postoperative course was very stormy He ran a septic temperature for several weeks despite adequate chemotherapy and penicillin Repeated x-rays of the chest in the oblique

and lateral positions showed a rapidly increasing globular mass in the posterior mediastinum, just behind and to the left of the heart This was interpreted as a mediastinal abscess or encapsulated blood (Fig 5) Attempts at aspiration of this mass were unsuccessful However, the temperature slowly fell to normal, and the mass gradually resolved It was concluded that the mass was probably blood rather than an abscess, since it resolved completely in a short time The patient at the present time is up and about the ward with no complaints

Summary

A case is presented of a foreign body (needle) in the myocardium, with recovery following surgical removal of the needle Serial electrocardiograms were obtained prior to and after removal of the needle The electrocardiographic changes suggested initially an acute pericarditis with subsequent changes resembling those of a posterior wall infarction and finally an atypical picture of the limb leads showing changes of posterior wall infarction and the chest leads showing inversion of all T waves

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LOCALIZATION OF METASTATIC CANCER BY TRAUMA

George T Pack, M D , and Robert J Booher, M D , New York City

THE influence of trauma on the occurrence and spread of tumors is quite widely discussed and litigated Recent experiments in attempting to localize tumor metastases in long bones by mechanical trauma have recalled a most unusual case history which bears on the problem and illustrates similar conditions occurring in the management of cancer in man It is of such timely bearing, in the light of these experiments, that we wish to record it for general discussion of this problem.

Saphir, Appel, and Levinthal have reported a series of experiments designed to study the effects of a single mechanical trauma and of chronic irritation in the localization of metastases of the Brown-Pearce carcinoma in long bones of male rabbits [1] They report three series of studies, using the Brown-Pearce rabbit tumor which is highly malignant and which can be readily transplanted into the testes, from which it metastasizes early from the time of intratesticular transplantation and produces a generalized carcinomatosis. In the first of this series of experiments, the humerus was fractured and immediately afterward an injection of tumor cells was made in an ear vein In the second series, the humerus was fractured, and fourteen days later the suspension of tumor cells was injected in the ear vein, and last, in the third series, the tumor was transplanted into the testes and, two weeks later, the humerus was fractured In none of these animals was there roentgenographic, macroscopic, or microscopic evidence of tumor formation at the site of fracture, although autopsy disclosed metastases in various organs The results of these experiments were summarized to show that mechanical trauma, or chronic irritation of bones, played no role in the localization of metastases from transplanted Brown-Pearce carcinomas in rabbits

In view of these experiments, the following case history is most interesting

Case Report

L D was a thirty-four-year-old white man whose chief complaint was difficulty in breathing through the left nostril for the two years preceding his report to a tumor clinic At the time of his initial visit he stated that he had been treated by endotherm-snare excisions and various surgical and medical treatments for his nasal obstruction without relief He occasionally had epistaxis and sometimes an infection in the posterior nares with considerable febrile reaction

Physical examination revealed a pale, anemic young man. In the left nares there was a granular, polypoid lesion which was infected and bled easily on being traumatized with the probe The mass occluded the posterior nares There was no tributary adenopathy in either the submaxillary or the deep cervical lymph node regions on either side The remainder of the examination was that of an essentially normal male of thirty-four years of age A presumptive diagnosis of carcinoma of Schneiderian membrane type was made without palpable involvement of lymph nodes This lesion was biopsied, and the report of Doctor A. Hobson Davis, the pathologist, was "rapidly growing malignant tumor, probably of transitional cell type This tumor is frequently called 'lymphoepithelioma' "

Radiation Treatment.—A course of high voltage x-ray therapy was then prescribed, using two portals on either side of the face, cross-firing at the nose and nasopharynx The following factors were used 200 kilovolts, 0 5 mm copper-aluminum filtration, using a 5-cm cone at 60-cm. skin target distance, giving 300 roentgen fractions each day to alternate portals until a total dose of 2,400 r × 2 was given

The lesion responded rapidly, and, before 900 roentgen units had been delivered to each portal

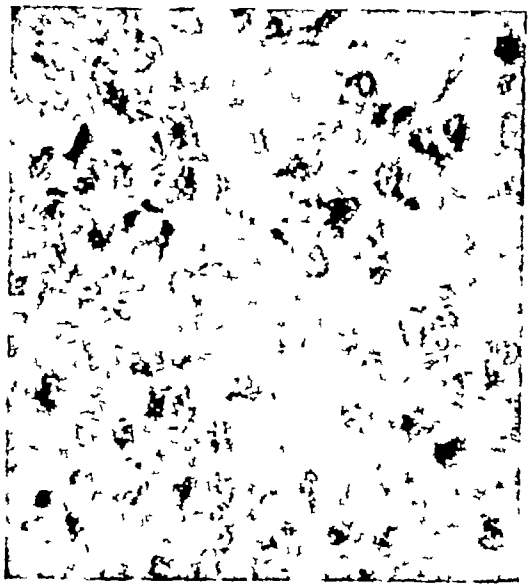


FIG 1 Primary nasopharyngeal tumor

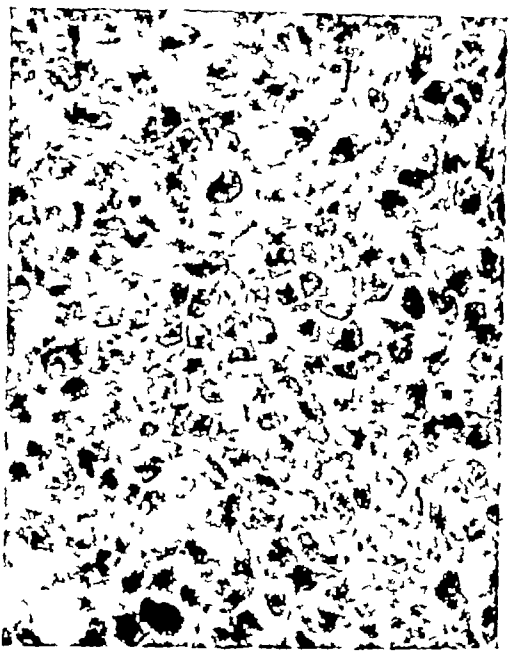


FIG 2 Metastatic tumor involving shaft of penis. Note identical histologic structure

the patient was able to breath through the left side of his nose for the first time in two years, a finding confirming the radiosensitivity of the tumor As the mass subsided, its origin from the septum could be demonstrated The x-ray treatment was given within a period of eighteen days This produced a brisk reaction in skin and nasal mucosa and clinical disappearance of the lesion It was then thought best to supplement the irradiation with a tandem of two heavily filtered radium capsules Accordingly, 14 platinum cells containing 3 33 mg each of radium were inserted in a tandem of two capsules The filtration equivalent of 1 mm of platinum was used with seven cells being used in each capsule These were placed in the posterior left nares until a total dose of 1,000 mg hours was given in the course of twenty-one and one-half hours time The lesion had completely healed within three months, and there was no evidence of metastasis to regional lymph nodes

Nature of Accident.—Twenty-one months after the institution of treatment for the cancer of his nasal septum, he sustained an unusual injury to his penis The injury amounted to one which produced a fracture of the erect organ It occurred during sexual play in which he was seated while nude in a chair and his girl companion threw herself unexpectedly onto his lap It was attended with severe pain, ecchymosis, and swelling, which subsided in time with conservative measures Approximately two weeks after this trauma, a nodule appeared at the site of the injury on the left side of the shaft of the penis and grew rapidly in size It was not attendant by pain or tenderness, but there was occasional chordee Four weeks elapsed after the trauma before he reported for examination He then presented a tumor on the dorsum of the penis, measuring approximately 5 cm. in diameter, which was encapsulated entirely in the left corpus cavernosum

Treatment of Metastasis to Penis —Due to the history of trauma, the presumptive diagnosis was unresolved hematoma, subsequent to a so-called fracture of the penis He was referred to Dr Benjamin Barringer at the Memorial Hospital At the time of his examination on December 8, 1936, the patient presented a swelling which was attached to the corpus cavernosus of the penis and measured approximately $2\frac{1}{2}$ by $1\frac{1}{2}$ inches With the *tentative diagnosis of hematoma or organized blood* clot of the penis, an operation for excision of the mass was performed. After exposing this lesion, it was found to be approximately 3 cm in diameter and was situated on the dorsal aspect of the lower third of the penis It seemed to be made up of an overgrowth of tissue of the corpus cavernosum, but in one region the tissue was of softer consistency, slightly grayish in color, and with the general appearance of a sarcoma An attempt was made to perform a complete excision of this mass, but because of almost total involvement of this portion of the corpus cavernosum, it was almost impossible to remove it At one place, it was adherent to the urethra itself, and in excising this segment a portion of the urethra had to be removed A catheter was inserted into the urethra and layer closure effected

Pathologist's Report.—The pathologic specimen was reported as follows "Oval mass of soft tissue measuring 6 by 5 by 4 cm and one small loose fragment of skin, which measures 3 by 1 cm" It appears to represent a portion of the penis which has been completely infiltrated by tumor, except for one small portion of the corpus spongiosum The tumor has ulcerated into the urethra. On section, the tumor presents an opaque, grayish-white, glistening surface The loose fragments of skin contain on the

under surface two small tags of tumor tissue Microscopic diagnosis "malignant tumor—resembles reticulum cell lymphosarcoma"

Subsequent Course.—The patient was discharged on the day after the operative procedure, and although the wound was slow in healing due to a transitory urethral fistula, it had healed completely within four weeks High voltage irradiation was given to the lesion with the following factors 200 kilovolts, 0 5 mm. copper filtration, 50 cm skin target distance, 25 ma , 3 8 minutes, and 200 r daily, a total dose of 1,000 r

The infected nasal cavity gradually responded to local measures, although several pieces of maxilla were exposed. Another débridement was done at which time two small fragments of tissue, measuring about 2 cm in diameter, were obtained. These appeared to be neoplastic tissue, and the report by Dr F R. Sandt, the pathologist, was recurrent transitional cell carcinoma At this time, necrosis was quite extensive and a perforation had appeared through the hard palate Wide débridement was done. A blood transfusion was then given without reaction. The patient's subsequent course soon became critical, and he died twenty-seven months after his initial examination and six months after the metastatic deposit in his penis

Final Opinion of Pathologist.—The various tumor specimens have been examined subsequently, and it is the opinion of Dr A. Hobson Davis that the lesion originally biopsied in the nose, as well as the recurrent lesion found in March of 1937, and also the tumor of the penis, all are identical neoplastic tissue, which he believes represents transitional cell carcinoma. The opinion of Dr Frank Foote is that the lesions are indeed similar and are most probably reticulum cell lymphosarcoma (Figs 1 and 2)

Comment

Metastatic involvement of the penis by cancer from a distant site is of extremely rare occurrence At the time it made its recognizable appearance in this patient, there were no evidences elsewhere of metastatic deposits of cancer and no clinical proof of local recurrence in the naris It would seem strangely coincidental that this young man could have had a metastatic lesion in the penis prior to the injury and unknown to him and that the presence of the metastasis predisposed the organ to injury after the manner of traumatic determinism. The trauma sustained was bona fide and of major character The time elapsing between the date of the injury and the growth of the metastatic tumor was less than one month The site of the trauma and the localization of the secondary tumor were the same Pathologists agree that the penile neoplasm and the one in the nose were of identical histogenesis These facts would seem to fulfill all the postulates concerning traumatic relationship Theoretically the cancer cells must have been in the blood stream at or shortly after the penile injury, in order to be deposited there and find proper soil in which to develop

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PENICILLIN DISCOVERER PRAISES FREEDOM IN RESEARCH

Sir Alexander Fleming, the discoverer of penicillin, dedicated the Oklahoma Medical Research Foundation on July 2 to the proposition that great discoveries most often were made by research men left free to follow the leads provided by chance or luck in the scientific laboratory

Sir Alexander's experience, which led to the development of modern disease-killing drugs, is frequently cited as an outstanding example of the importance of serendipity in science He found penicillin by chance but had been trained to look for significance in scientific "accidents"

He spoke in Oklahoma City on a program celebrating the opening of a new research project that has attracted nation-wide attention—it was financed by the voluntary contributions of 7,500 Oklahomans who have pledged a total of $2,400,000 for research

Most medical research centers are supported by government funds, large gifts from philanthropists, or industrial grants Oklahomans paid for this one the largest contribution was $26,000 from an oil man, and the smallest was 30 cents. Sir Alexander congratulated the citizens of the state for the public interest in medical progress which this response proved He promised that the laboratory may "prove a thousand times more valuable to humanity than all the oil in Oklahoma"

Then he warned the new foundation's directors to choose well-trained researchers and allow them complete freedom to explore the unknown country of the "sick man"

"You do not know what you will find," Dr Fleming said, "you may set out to find one thing and end up by discovering something entirely different

"This type of research cannot be controlled We can plan some aspects of medical research, but we cannot plan pure fundamental research any more than we can organize developments in art or literature

"We cannot plan genius, but it is up to the rulers of a foundation such as this to create the free atmosphere which will allow genius full play," he said

DIAPHRAGMATIC HERNIA THROUGH THE FORAMEN OF MORGAGNI

WILLIAM W JOHNSON, M D , F A C S , Plattsburg, New York

(*From the Physicians Hospital*)

DIAPHRAGMATIC hernia is a condition not infrequently recognized by present-day methods of diagnostic procedure Proved cases of such hernia passing through the foramen of Morgagni are still a rarity Justification for the report of a single case is based on the thoughts that (1) it is well to keep the possibility of such a condition in mind, (2) the diagnosis in this instance was made by exceptionally definite x-ray evidence, and (3) proved cases are still uncommon

In 1930 Hedblom collected from the literature and reported 56 cases of this type of diaphragmatic hernia These were not all proved cases, and the author himself questions the diagnosis in some of them [1] A review of the literature from 1930 to 1941 by Harrington produced reports on 24 additional cases [2] In 1945, Harrington reported that, in 404 operative procedures he had performed for diaphragmatic hernia, only eight were of the subcostosternal variety [3]

Case Report

E C , a white woman, age twenty-six, was first seen in April, 1947 She complained of a chronic cough and general ill health She had been troubled by "gas" in her stomach and cramps for a long period of time, which had made her an invalid, and, therefore, she had been unable to get or retain any remunerative occupation since she had graduated from high school One year previous, a tumor was removed from the right breast with no relief of symptoms

She still complained of mild epigastric pains, characteristically crampy, often associated with nausea but rarely with emesis The symptoms were unrelated to meals or to type of food Symptoms were intermittent, lasting for a few days, then disappearing For the past two months there had been increasing cough and moderate expectoration

The patient was referred to the Ray Brook Clinic for examination At the clinic no abnormal chest findings were observed on examination There was a well-healed scar in the inner lower quadrant of the right breast There were no nodules in the scar and no axillary, supraclavicular, or cervical nodes The abdomen was negative

Sputum specimens revealed no acid-fast bacilli when examined by the concentration method Two tuberculin tests with 0 1 and with 1 0 mg of old tuberculin were negative

X-ray films of the chest taken on May 22, 1947, showed a triangular dense shadow lying just above the diaphragm in the medial and anterior aspect of the lung field just against the shadow of the heart

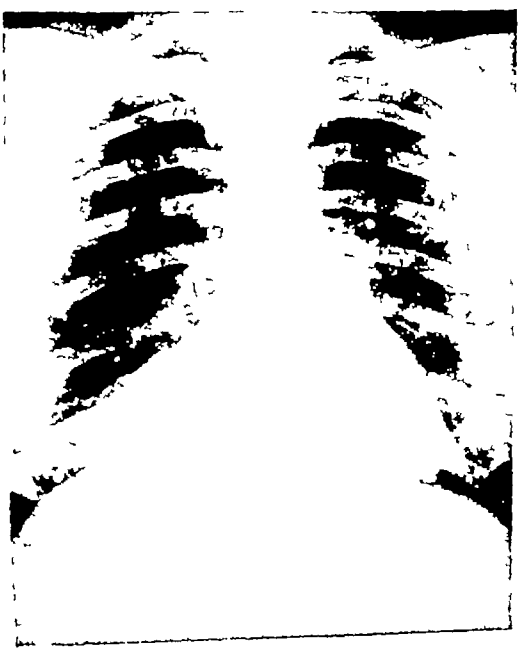


FIG 1 Posteroanterior film of chest shows dense shadow beside the right heart border



FIG 2 Anteroposterior film of abdomen and chest five hours after ingestion of barium. The colon is seen rising above the right diaphram and lying against the right border of the heart.

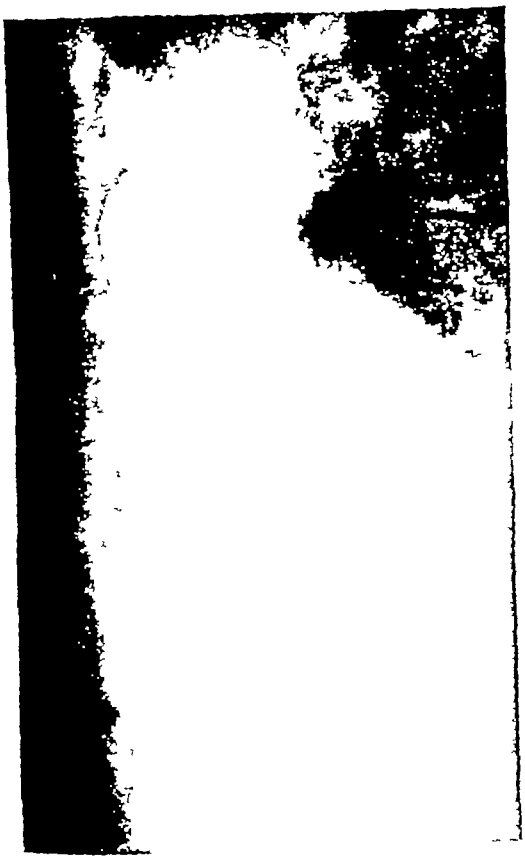


FIG 3 Lateral film of abdomen and chest five hours after ingestion of barium The colon is shown lying in the anterior chest.

on the right side In the upper portion of this shadow there was an irregular area of decreased density (Fig 1)

On June 25, 1947, a gastrointestinal series was done. On fluoroscopic examination it was noted that the density in the right lower anterior chest moved upward when the patient sniffed, while the diaphragm moved normally downward The gastrointestinal series was negative until one and a half hours when it was noted that the head of the meal was in the ascending colon and that there was a large gas bubble in the lower medial anterior portion of the right chest This definitely demonstrated the presence of bowel in the chest From three to five hour x-rays showed the ascending colon to turn medially and overlie the second lumbar vertebra It coursed up the spine to the level of the twelfth dorsal, then extended somewhat laterally and upward to pass the outline of the diaphragm at the level of the eleventh dorsal vertebra. It extended laterally to about the midchest, upward to the level of the ninth rib posteriorly, medially to the right side of the spine, downward to the level of the eleventh dorsal vertebra where it again crossed the outline of the diaphragm (Fig 2) Lateral films showed the area affected to be entirely in the anterior chest (Fig 3)

The diagnosis was diaphragmatic hernia through the right foramen of Morgagni, containing a loop of large bowel



FIG 4. Barium enema showing the loop of bowel, previously in the chest, now located in the abdomen

The patient was admitted to the Physicians Hospital, Plattsburg, on August 11, 1947 Operation was performed on August 14, 1947 A high upper right rectus incision was made and the coronary ligament divided The opening in the diaphragm was found and the herniated large intestine reduced after adhesions were freed The hernial sac was removed and the rent in the diaphragm closed

Postoperatively, both penicillin and sulfadiazine were given for four days There was no accumulation of fluid in the chest, and the patient was up and about the ward eight days after operation. She was discharged from the hospital five days later

Just before leaving the hospital, x-rays of the chest and barium enemas were taken (Fig 4) These show the colon back in the abdomen and the chest clear A subsequent x-ray of the chest shows an entirely normal chest and heart outline

In January, 1948, the patient reported that she felt perfectly well, had no symptoms, and was employed as a factory worker

Comment

In this instance the symptoms were typically conflicting Gastrointestinal complaints had been present and treated over a long period of time The pulmonary complaints were comparatively recent, but investigation of the cough and expectoration led to the correct diagnosis

The x-rays show the typical increased density

lying in the cardiophrenic angle anteriorly, which is produced by this type of hernia A density so situated is suggestive of the diagnosis If the hernia contains omentum only, the diagnosis will have to rest on this evidence alone until proved by operation The presence of colon in the hernia in this case definitely clinched the diagnosis

All authors agree that this type of hernia should be approached through the abdomen Exposure of the hernial opening is satisfactory, and the freeing of adhesions and reduction of the protruded abdominal viscera can be best accomplished from this direction This procedure must be done with the greatest care and, so far as possible, under direct vision The close proximity of the pleura and pericardium demand meticulous care during the dissection Intratracheal anesthesia should be used so that control of the lungs can be maintained should the pleura be opened either accidentally or intentionally

Either a positive or probable diagnosis of the presence of this condition having been established, operation should immediately be recommended The operation is a safe procedure The meager literature contains far too many diagnoses "proved by necropsy" Pulmonary infection and intestinal obstruction, both imminent dangers in every case, account for the high mortality

Summary

1 A case of diaphragmatic hernia through the foramen of Morgagni showing typical history and x-ray findings is reported

2 Suspected or positive diagnosis of this type of hernia demands the benefit of operative procedure

3 Operation should be performed under intratracheal anesthesia and by an abdominal approach.

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SORE FEET

Employes with sore feet cost their bosses $100 million last year This toll of absenteeism and operating inefficiency adds a hefty sum to already swollen business costs Hence, businessmen are scouting around for something to do about their employes' feet The people to whom most businessmen turn for help are the podiatrists (chiropodists)

Recently the National Association of Chiropodists met in Washington, discussed what industry has been doing so far to relieve its workers' tired feet Dr A. Owen Penney, former president, summed up the picture for association members Stores and factories account for most industrial foot ailments There, workers are most apt to throw themselves off balance Corns and bunions, once formed, are aggravated as the workers try to find relief from pain—again, by off-balance stance Dr Penney estimated that 16 per cent of all industrial workers lose as much as a day's work per month because their feet hurt. In addition, aching feet result in slower work, less efficiency in plants In stores, they mean irritable clerks, greater breakage of merchandise, mistakes—even lost sales and angered customers

Store clerks and factory workers are not alone in their suffering Housepainters, roofers, and others who stand for long periods on the rungs of ladders develop a neuralgia of the foot. Delivery truck drivers, because of their habit of jumping from the truck onto the concrete pavement, often develop a painful enlargement of the first ball joint. Then, there is a callous known as "chauffeur's foot" developed by people who spend a great deal of time driving cars or trucks In contrast, there are the many who have foot trouble because their feet get too little of the right exercise

Dr Penney cited Atlanta's Fulton Bag & Cotton Mills as an example of what can be gained through foot clinics Fulton started a free clinic for employes about two years ago Since then, it has reported a drop of 12 per cent in absenteeism, and a rise in production efficiency As a matter of fact, there is a growing list of firms that have taken steps to do something about foot troubles. Woodward & Lothrop, Washington department store, has had a foot-care plan for its employes for twenty-two years The workers go to chiropodists as often as necessary, and the store pays the bill Two other department stores—The Hecht Company, Washington, and Filene's in Boston—have chiropodists come in once a week to check and treat employes' feet The stores pay part of the fee Murray Manufacturing Corporation, in Brooklyn, has a chiropodist visit the plant five times a week When the program was first instituted in 1944, the company paid only a part of the cost. It found, however, that workers failed to utilize the service completely under this arrangement—they were particularly lax about follow-up checks Since 1945, the company has paid the whole cost of the program.

Among large corporations which include foot care in their war-born over-all medical programs are the Henry Kaiser enterprises, Jack & Heintz, Endicott-Johnson, and Sears Roebuck. A survey of working conditions, aimed at preventing foot ailments and accidents, has just been completed in two plants of Ellmore Silver Company, Meriden, Connecticut. Dr Charles Forster, chiropodist who made the study, submitted recommendations, including use of rubber pads on the floor where workers stand all day before machines Many of his suggestions have been put into effect Other companies cooperating in such surveys include Liberty Mutual, Metropolitan Life, Aetna Life, U.S Fidelity & Guaranty, Zurich Insurance, The Mennen Company, Bristol-Myers, and International Shoe

Special Article

OUR COMMON GOAL THE HEALTH OF THE PUBLIC

JOHN J MASTERSON, M D , Brooklyn, New York

(President, Medical Society of the State of New York)

I AM very grateful for the opportunity of appearing before you today to discuss a subject which is of such growing importance

Health, while always high on the list of topics of general interest, has become in recent years, as you all know, a matter of national concern One has but to read the daily press to become aware that more thought and attention is being given to preserving and enhancing the physical well-being of our citizens than at any other time in our history

There can be no quibbling about the need for taking every step that needs to be taken to achieve this end, and for seeking every means possible to bring it about The medical profession, which I have the honor to represent in the State of New York, holds views in common with all those who feel that good health, for the individual and for the population as a whole, is a heritage that should be denied to no one The Medical Society of the State of New York is dedicated to the service of the people of the State, in order that their constant war against death and disease may not find them without staunch allies and counselors

It seems to me, however, that there has been a tendency of late for the most perplexing problems of ministering to the health needs of our people to get into the hands of persons who are least qualified to handle them There has been a score of suggestions for improving the health services of our nation, some of them in the form of proposed legislation In most cases, there has been a minimum of consultation with the doctors, nurses, public health officers, and other specialists whose advice and experience would enable us to reach a practical and sound solution

One cannot question the sincerity of all who would raise the level of health in this country, but it would be much more realistic if the profession which would be called upon to render the medical service, in the event of the adoption of a national health program, were asked for an evaluation of its practicability

I and my colleagues in the medical profession have a great regard for the splendid work done in New York State and in other parts of the nation by the public health officers and nurses They are, in a sense, the vanguard which holds the line against the ravages of disease and sickness. Without them, the public would be undefended against the unseen enemies which always threaten to strike No one who is familiar with the progress made in the field of public health in recent years can doubt that vast benefits would result from an expansion and intensification of this work

This is recognized by the medical profession, which has advanced a program providing for the interweaving of all the agencies of community life to attain for all the maximum results of health and happiness The general levels of health and added longevity accomplished by health education, medical research and development, and the use of new methods in prevention and treatment of disease, which in this country are beyond compare, should be brought to every doorstep

The American Medical Association has a National Health Program which emphasizes the importance of preventive medicine and public health services It indicates the need for standards of nutrition, housing, clothing, and recreation. Prenatal care, childbirth, infant welfare, and child care are recognized as specialized services in which community effort is helpful Hospitals and health centers are encouraged to meet the needs of communities they serve, and voluntary prepayment plans for hospital and medical care are promoted to finance adequate service Veterans' care of a high standard, supplied to those with service-connected disabilities or in need, is an obligation of good government. Medical research is fundamental to progress The voluntary health agencies have developed uniquely in the United States Health education and fullness of wholesome living round out our health program

By directing our efforts through these channels, the medical profession and the public health workers, functioning as a team, can make still further strides toward the reduction of the incidence of disease, shortening the periods of illness, and lengthening the life of people in all walks of life. This can be done through voluntary effort and without the loss of individual freedom The place for governmental aid is in those areas in which the individual and the community require assistance

A modern health program requires in each locality the participation of leaders from all walks of life Because of their professional experience and training in the field of health and scientific medicine, members of the medical profession should assume leadership With emphasis on prevention, prophylaxis, and the maintenance of vigorous positive health, fewer patients should require hospital care, and the level of health should be improved

The field of health is vast, and there is plenty of room for action for workers of all types, whether their approach be in terms of the population as a whole, or in terms of the individual The important point is for the health officer and the physician to work in a cooperative spirit and blend their efforts to achieve their common goal

In glancing over a volume written by Julian Huxley, called *Man in the Modern World,* I recently came across this passage

> As the barber-surgeon of the Middle Ages has given place to the medical man of today, with his elaborate scientific training, so the essentially amateur politician and administrator of today will have to be replaced by a new type of professional man, with specialized training Life will go on against a background of social science Society will have begun to develop a brain

Presented at the New York Health Conference Lake Placid New York June 21 1949

I think this applies to the point I made earlier regarding the incompetence of some who seek to meddle with problems of national health I also think that it underscores what is going on in the field of public health today More and more the "new type professional man," with his specialized training, is coming to the fore, and under his leadership and guidance the operation of public health departments is reaching new heights

We have such a man in New York State in the person of Commissioner Hilleboe, and I want to take this opportunity to express to him my appreciation, and that of the medical profession, for the fine record he is making in his office He has shown a frankness and open-mindedness which has contributed much to the splendid cooperation that exists between the State Department of Health and the Medical Society of the State of New York With his understanding of the professional point of view and his willingness to discuss all problems, he has brought the physician and the public health worker closer together

They *should* be brought closer together The public health officer is as much a specialist as the pathologist, the radiologist, or the surgeon The public health officer owes the same allegiance to the profession of medicine as does every other type of physician While he owes an allegiance to the State, his first allegiance as a professional man and a servant of the people is to the mother science of medicine, to which we all are indebted He should make it a cardinal principle of his conduct that what is good for medicine as a whole is good for the health and welfare of the public

There have been and there probably will be many more honest differences of opinion between doctors and health officers—there is lots of room for them Most of them undoubtedly arise from the different approach each takes toward problems of health There need be no serious divergence of views, however, no matter what the problem, and there are vast areas where there can be none at all

A very successful pattern of cooperation has been built up by the State Health Department and the State Medical Society, and it has been in existence for many years. Since your last annual meeting, the State Medical Society has suffered a severe loss through the death of Dr Oliver Wendell Holmes Mitchell, chairman of the Committee on Public Health, who did much to initiate many of the programs now in operation His duties now have fallen upon the shoulders of Dr Theodore J Curphey, who is actively engaged in continuing and extending the teamwork of the Health Department and the Medical Society, along the lines followed by the late Dr Mitchell

This cooperation is highlighted by the splendid program of postgraduate medical education, which has helped to keep the level of medical practice so high in this State, with its resulting benefit to the public Other areas in which we have seen productive interchange of views are the establishment of blood banks, preparation for atomic disaster, and the postgraduate training in heart disease, to which the State Society was glad to give its approval We anticipate that the same approach will be followed in handling the cerebral palsy program

Perhaps this cooperation could be extended and made general if local situations were brought before county medical societies more often than they are. Many difficulties which appear to be insurmountable might be overcome if they were discussed on the floor of a meeting of the medical society in the area involved It should be possible to reach a common agreement after a full discussion, with all the elements brought to light and with a desire for teamwork motivating all concerned.

I would like to see more public health officers take an active part in the affairs of their county medical societies There is much to be gained by a mutual approach to common problems

An integrated network of workers in the field of health—public, private, and their assistants—is needed to give to the American people the health services they require. Recently published statements claim that 200,000 Americans die needlessly every year because of inadequate local health departments I do not know how accurate these figures are—we in the medical profession are plagued by flagrantly unreal figures of another kind—but they indicate some need for serious study

You probably are aware of the source of those figures, and the sensational headline used by the national magazine which printed them "The Shame of Our Local Health Departments" It is regrettable that such publicity tends to overshadow all the splendid work that is being done, just at a time when the medical profession is made to appear inadequate to meet the health needs of the nation by the advocates of a national health program

I sometimes wonder, in thinking about the health services which are now available to the rank and file of our population, whether we do not often err in treating good health as a gift which can be easily bestowed upon anyone who wants it There often appears to be too much emphasis upon the *giving* of health, and not enough on the receiving of it By that I mean, the real barriers to good health, in many instances, are not the lack of facilities or the inability to pay doctor bills. The barriers are ignorance and willful neglect, coupled with the failure to observe and practice even the most elementary principles of hygienic living Health must be earned It cannot be given. If there were greater concentration upon the personal responsibility of each citizen to safeguard and promote his own health, there would not be the vast amount of misinformation now current about the inadequacies of either our public health facilities or our medical services.

The hardy American pioneer, who took care of himself and built a sound body to cope with the rigors of his daily life, no doubt would have frowned at being coddled He would have favored the public health workers' efforts to eradicate disease and to promote the welfare of the community But he would never have forgotten his own responsibility to himself—the maintenance of his own health

Much has been done and much remains to be done before we can relax in our efforts and regard the level of health in this country as beyond improvement Present unprecedented health standards are the accomplishment of American medicine and they will continue to progress as long as medicine is kept free to devote itself to the welfare of the community

I subscribe to the remarks recently made in Cincinnati by Dr James R. Miller, a trustee of the American Medical Association, who said

"When a community has a trained health officer with adequate staff, and when physicians succeed in convincing the citizens of the value of a good health program and of their own responsibility for healthy living, there will be established a chain reaction of progress toward better community health which nothing can stop"

NECROLOGY

Moses Akin, M.D, of Ellenville, died on July 11 of a heart attack. Dr Akin, a native of Poland, was sixty-one years old. After graduation from Tufts Medical School in 1925, he served his internship at Beth Israel Hospital, New York. At the time of his death, Dr Akin was a physician and surgeon on the staff of Veterans Memorial Hospital, Ellenville, and was a member of the New York State and Ulster County Medical Societies and the American Medical Association In 1932 he had received a special degree from the University of Vienna.

Patrick J Conroy, M D, seventy-one, a Syracuse physician for the last thirty years, died of a heart ailment on June 11 Dr Conroy received his medical degree from the University of the South Medical Department, Sewanee, in 1901 after taking preparatory work at the University of Buffalo School of Medicine He was a member of the American Medical Association, the New York State and Onondaga County Medical Societies, the Men's Club of St Mary's Hospital, Syracuse, and for ten years was associated with the medical department of the Onondaga County welfare department until his retirement a year ago

Herbert C Fulmer, M D, died on June 16 at Clifton Springs Sanatarium after a short illness He was fifty-eight years old Dr Fulmer was graduated from Syracuse University College of Medicine in 1916 He practiced in Syracuse from 1920 to 1930 and from 1920 to 1948 in Thousand Island Park during the summers From 1934 Dr Fulmer practiced in Daytona Beach, Florida, during the winters

Charles H Haskins, M.D, of Saranac Lake, died recently at the age of fifty-three Dr Haskins, a graduate of Yale University College of Medicine in 1923, was a physician at the General Hospital of Saranac Lake

Ernest Kiss, M D, Queens physician, died on April 14 Fifty-year-old Dr Kiss received his medical degree from the University of Budapest in 1924. At the time of his death he was a member of the New York State and Queens County Medical Societies and the American Medical Association

Jacques Lewinski, M.D, of the Bronx, died on March 5 Dr Lewinski, a graduate of the University of Strassburg in 1912, was formerly a clinical assistant dermatologist in the outpatient department of Bronx Hospital He was also a member of the New York State and Bronx County Medical Societies and the American Medical Association

Francis Joseph McCormick, M D, sixty-two-year-old Ithaca surgeon, died June 30 Dr McCormick had been retired from practice for the last four years because of illness He was graduated from Cornell University Medical College in 1910 and had been a surgeon on the staff of Biggs Memorial Hospital, Ithaca, and consultant surgeon at Willard State Hospital, Willard Dr McCormick was a Fellow of the American College of Surgeons and a member of the New York State and Tompkins County Medical Societies and the American Medical Association

John Conway Russell, M D, eighty-seven, a physician in Saranac Lake for more than fifty years, died on July 10 Dr Russell was a graduate of New York University College of Medicine in 1886

Marie Emilie Ohlmeyer Schroeder, M D, seventy-nine, pioneer woman doctor in Rockland County, died on May 28 after a long illness which had forced her to retire from active practice two years ago Dr Schroeder did postgraduate work in Germany for two years following graduation from New York Medical College and Hospital for Women in 1892 Her first practice was in New York City In 1910 she moved to Nanuet and had practiced there, specializing in obstetrics, until her recent retirement

Heber H Ward, M D, of Brooklyn, died on March 31 at the age of sixty-seven Dr Ward was graduated from the Kentucky University Medical Department in 1905 and had been on the staff of Samaritan Hospital, Brooklyn He was formerly a member of the American Medical Association and the New York State and Kings County Medical Societies

James Franklin Whitwell, M D, practicing physician in Buffalo for fifty-nine years, died June 17 in Deaconess Hospital after a short illness Dr Whitwell, eighty-two years of age, was a graduate of the University of Buffalo School of Medicine in 1890, serving his internship at Buffalo General Hospital the following year He began his association with Deaconess Hospital about 1900 and was for many years a member of the board of directors and of the Hospital's Training School Committee At the time of his death he was a consultant gynecologist on the staff

A member of the Buffalo Academy of Medicine he was honored at a testimonial by that group on the occasion of his fiftieth anniversary as a physician Dr Whitwell had served as president of the Erie County Medical Society in 1913 and was a member of the New York State Medical Society and the American Medical Association as well as the County Society and the Academy of Medicine

MEDICAL NEWS

New York City Lions Club Awards Scholarships to Eye Doctors

FOUR New York University-Bellevue Medical Center physicians were awarded scholarships totaling $2,000 for research in fields related to eye conservation at a luncheon of the Lions Club of New York held June 21 in New York City

Mr Walter Hoving, guest speaker at the luncheon, presented a check for the amount to Dr Daniel B Kirby, professor of ophthalmology, New York University Post-Graduate Medical School, who accepted the gift on behalf of the Medical Center The check represents the fourth annual gift of the Lions Club in aid of the Medical Center's program of postgraduate research devoted to the alleviation and prevention of blindness

Recipients of the scholarships are Dr Arthur Smith, Elmira, Dr James Mayes, Cleveland, Ohio, Dr Irwin Cohen, New York City, and Dr Thomas Heslin, Levittown

Former recipients of the scholarship awards are

1946—Drs Edward Danforth, Charles Goldsmith, Jonathan L Harris, and Hugh McGee

1947—Drs Edward Buckley, George R. Kolodny, Nathaniel Robinson, and Horace Shreck

1948—Drs Goodwin Breinin, Edwin Kent, Walter Mayer, and Charles Toomey

Mr Ernest Fryxell, chairman of the Lions Club Eye Conservation Fund, introduced the scholarship recipients and the guest speaker

Foundation to Merge with American Heart Association

PRELIMINARY steps for merging the American Foundation for High Blood Pressure with the American Heart Association have been approved by boards of both groups, it has been announced by Mr A W Robertson, chairman of the board of the American Heart Association.

The high blood pressure group will thus become a section of the American Heart Association's Scientific Council and will be known as the Council for High Blood Pressure Research Other sections within the Association's Scientific Council now include the Section on Circulation and the American Council on Rheumatic Fever

Under a preliminary agreement approved by the Board of Directors of the American Heart Association and the Board of Trustees of the American Foundation for High Blood Pressure, the staffs of both groups will undertake a joint study to recommend methods of integrating personnel and operations of the two present organizations When such arrangements have been mutually approved, the Foundation will dissolve

Eleven research grants approximating $50,000 for investigation of heart and circulatory disease have been announced by Dr H M Marvin, of New Haven, Connecticut, president of the American Heart Association

The grants include

Long Island College of Medicine, Brooklyn—study of antifibrillatory effect of certain drugs, by Dr Joseph R Di Palma

Albany Medical College, Albany—physiology of atrial and ventricular septal defects and of fixed degrees of chronic valvular stenosis and insufficiency, by Dr Harold C Wiggers

The Research Fellowships are granted for a one-year period, with stipend ranging from $3,000 to $4,000, and are open to graduates of approved medical or graduate schools who are interested in research and intend to follow an academic career

New applications for Research Fellows and Established Investigators will be accepted up to September 15, 1949 Applications may be made to Dr Charles A R Connor, medical director, 1775 Broadway, New York City, 19

To Hold Venereal Disease Seminars

A COMPREHENSIVE series of lectures and demonstrations on the diagnosis, treatment, and management of venereal diseases will start at the New York City Department of Health on Saturday morning, October 8 There will be 12 weekly meetings presided over by experts in the various special fields of venereal disease control Sessions will start at 10 30 A.M and will be held in the second floor auditorium of the Health Department, 125 Worth Street, New York City

The schedule of lectures includes

October 8—The Medical Practitioner and Venereal Disease

October 15—Current Developments in the Treatment of Syphilis

October 22—Antibiotics in Venereal Disease

October 29—Clinical Lecture The Chancre of Syphilis—Differentiation from Other Genital Lesions

November 5—Skin Lesions of Syphilis and Their Differential Diagnosis

November 12—Chancroid, Lymphogranuloma Venereum, and Granuloma Inguinale

November 19—Heart Disease and Syphilis in the General Practitioner's Office

November 26—Syphilis of the Central Nervous System

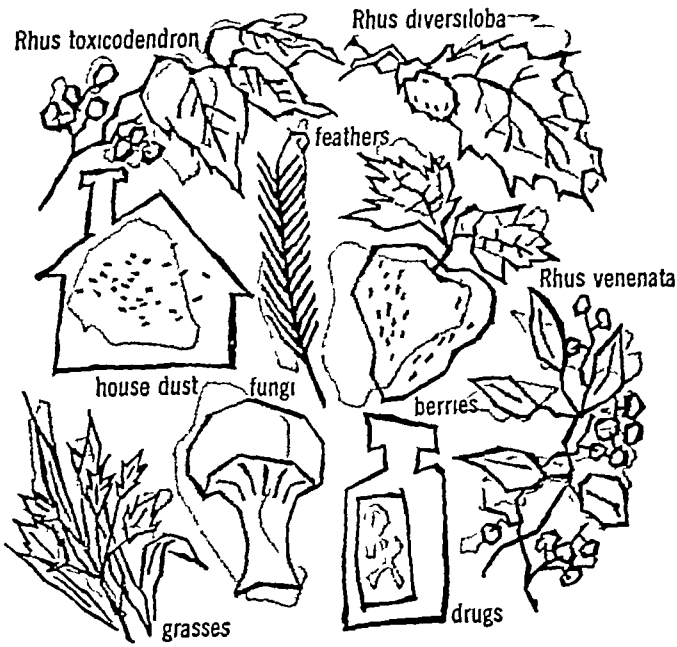
December 2 (Friday, at 1 30 P M)—The Oral Manifestations of Syphilis and the Differential Diagnosis of Interest to Medical and Dental Practitioners

December 3—Serodiagnosis of Syphilis

December 10—The Public Health Nurse's Role in the General Practitioner's Approach to Venereal Disease

December 17—The Syphilitic Pregnant Woman and Her Expectant Child

[Continued on page 1850]



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[Continued from page 1848]

Announce National Cancer Institute Grants

NATIONAL Cancer Institute grants for cancer training programs, to finance laboratory and clinical research in cancer, and for special cancer control projects have been announced recently, on the basis of recommendations by the National Advisory Cancer Council

Cancer training grants in New York State include

Albany Medical College, Albany, Dr L Whittington Gorham, $24,948, to expand present cancer training program

University of Buffalo School of Medicine, Buffalo, Dr Roswell K Brown, $25,000 to improve present training program

Cornell University Medical College, New York City, Dr Thomas P Almy, $24,975, to continue grant-supported training program

Among the grants of $1,026,294 to finance laboratory and clinical research are the following

Dr Kurt G Stern, Polytechnic Institute of Brooklyn, Brooklyn, $9,936, for studies on desoxypentosenucleic acids and nucleoproteins

Dr Margaret R Murray, College of Physicians and Surgeons, Columbia University, $8,910, for compilation of tissue culture bibliography

Dr Gray H Twombly, College of Physicians and Surgeons, Columbia University, $17,589, for study of selective localization of hormones in normal and cancer-bearing tissues by radioactive estrogens and related substances

Dr Thomas P Almy, Cornell University Medical College, $7,875, for relation of adrenocortical function to leukemia in mice

Dr Paul A Zahl, Haskins Laboratories, New York City, $2,700, effect of gonadotropin suppression on the development of mammary cancer in mice

Dr Konrad Dobriner, Memorial Hospital, New York City, $30,000, steroid hormone research

Dr S M Seidlin, Montefiore Hospital, New York City, $10,000, use of radioactive iodine in study and treatment of carcinoma of thyroid and allied diseases

Dr Harry M Zimmerman, Montefiore Hospital, New York City, $10,000, experimental brain tumors

Dr I Snapper, Mount Sinai Hospital, New York City, $3,000, on the metabolism of 2-hydroxystilbamidine

Dr Anna Goldfelder, New York University, $3,456, investigation of phosphorylated and glycolytic activity of analogous mammary tumors

Drs W C Chambers and M J Kopac, New York University, $22,734, mechanism of cell division and protoplasmic growth

Dr Douglas Marsland, New York University, $2,700, mechanisms of cell division a pressure-temperature study

Dr M J Kopac, New York University, $13,267, ionic exchange during growth, differentiation, and development of marine eggs

Drs Chambers and Grand, New York University, $22,545, etiology of Hodgkin's disease

Dr Arthur L Schade, Overly Biochemical Research Foundation, Inc, New York City, $14,661, studies on growth with the aid of cobalt

Dr W R. Bloor, University of Rochester, Rochester, $10,828, lipid metabolism of tumor-bearing animals

Dr William S McCann, University of Rochester, Rochester, $6,966, metabolic studies on patients with neoplastic diseases

Dr D S Tarbell, University of Rochester, Rochester, $9,828, structure and antimitotic activity of colchicine and podophyllotoxin

Drs Bloor, Hodge, and Stotz, University of Rochester, Rochester, $4,844, relationship of labile methyl groups to the formation of neoplasms in rats on a choline-deficient diet

Dr F C Steward, University of Rochester, Rochester, $11,988, metabolism and nutrition of normal and growing cells

Dr Otto H Muller, Syracuse University College of Medicine, Syracuse, $6,698, polarographic reactions of proteins and polypeptides and their relation to cancer

Special control grants in New York State include

American Cancer Society, New York City, $50,000 for professional teaching films, and $10,000 for lay cancer education films

New York University-Bellevue Medical Center, New York City, Dr William Law Watson, $4,320, tumor registry and follow-up service, and $2,029, tumor examining room-instrument purchases.

Montefiore Hospital, New York City, Dr Daniel Laszlo, $10,000, metabolic studies in human cancer

Teachers College, Columbia University, New York City, Dr R. Louise McManus and Miss Katherine R Nelson, $10,260, survey course of advances in cancer control for clinical instructors and public health nurses

MEDICALLY SPEAKING—

Tropical Disease Diagnostic Service—The Department of Health of New York City has expanded its tropical disease diagnostic service by opening a clinic and laboratory in the Lower East Side Health Center, 341 East 25th Street

This tropical disease clinic and laboratory is the second to be operated by the Department of Health The first, established in 1943, operates in the Washington Heights District Health Center, 600 West 168th Street The new clinic and laboratory will provide consultation, diagnostic, and laboratory services for persons who may have, or suspect they have acquired parasitic infections Private physicians clinics, or hospitals may refer patients to the new clinic for consultation, diagnosis, or treatment, and laboratory specimens may also be submitted for diagnosis Patients at the clinic will be seen by appointment only

Dr Harry Most, associate professor of preventive medicine, New York University College of Medicine and director, postgraduate course in tropical medicine, New York University-Bellevue Medical Center Postgraduate Medical School, is in charge of the new laboratory and clinic He is a member of the subcommittee on tropical medicine of the National Research Council, and of the malaria study section of the United States Public Health

[Continued on page 1852]



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[Continued from page 1850]

Service, and of many other professional and scientific organizations He has made important contributions to clinical and laboratory research in the field of tropical diseases and was awarded the Legion of Merit in 1946

Research on Blindness in Infants—Mr Charles P Cooper, president of the Presbyterian Hospital, New York City, has announced that the Dunlevy Milbank Foundation, Inc , has established a five-year research program by an initial grant of $46,000 for the first two years, the amount to extend through 1950 It will "inaugurate and carry forward a search for the cause and prevention of blindness in infants, particularly those born prematurely" The grant is to be known as a "Grant for Research in the Cause and Prevention of Retrolental Fibroplasia"

The research on the project will be carried on under the direction of Dr John Dunnington, director of the ophthalmological service at the Institute of Ophthalmology, a unit of the Columbia-Presbyterian Medical Center Dr Algernon B Reese, attending ophthalmologist and pathologist, will be directly in charge of the project

Child Guidance Clinic Teams—Two new child guidance clinic teams, operating in the counties of Suffolk and Nassau, have been set up by the New York State Department of Mental Hygiene, according to an announcement by Dr Frederick MacCurdy, commissioner of mental hygiene The team operating in Suffolk County began work June 1 under the direction of Dr Joseph Haley, formerly supervising psychiatrist at Kings Park State Hospital The Nassau County team, to begin operation September 1, will be under the supervision of Dr Paul G Edgar, who is now senior psychiatrist at Manhattan State Hospital

The department at present has eight traveling child guidance clinic teams, each consisting of a psychiatrist, a psychologist, and a psychiatric social worker During the past year child guidance clinics were conducted in 132 communities throughout the State The clinic teams operating under the department's division of prevention maintain regular schedules in designated cities and towns "During the past year," the Commissioner said, "the Department of Mental Hygiene held over 1,000 child guidance clinics which were visited by more than 7,000 children But even this number falls short of the total need The two new clinic teams, bringing the total to ten, will enable the State to increase its services in this field"

Opportunity for Doctors—There is an urgent requirement for two doctors in the Grand Coulee Dam Area in eastern Washington, population about 7,500 There are now only three general practitioners permanently located in this area General practitioners with special interests in internal medicine, surgery, pediatrics, or obstetrics are needed The United States Bureau of Reclamation has a building in Coulee Dam available for lease to doctors Space totals about 1,200 square feet The Government will spend up to $1,500 toward the cost of remodeling the building into offices as desired by the new tenants Bids from two doctors, or from one doctor willing to rent the space jointly with another doctor, will be opened on September 15, 1949 Housing will be made available

For further details write at once to the District Manager, United States Bureau of Reclamation, Coulee Dam, Washington

To Study Industrial Health at N Y U—Doctors and engineers will join forces to study problems of industrial health, when New York University inaugurates in September a new course in industrial hygiene, offered cooperatively by the College of Engineering and the Institute of Industrial Medicine of the New York University-Bellevue Medical Center The course, planned to meet the growing demand for professional workers trained in the technics of industrial hygiene, is open to physicians and engineers

The new course will begin on September 26, 1949, and will include nine months of didactic teaching and three months of in-plant work. Further information may be obtained from the Dean, New York University Post-Graduate Medical School, 477 First Avenue, New York City 16

Conference of Presidents and Officers of State Medical Associations—Dr Clarence E Northcutt, past president of the Oklahoma State Medical Association, was elected president of the Conference of Presidents and Other Officers of State Medical Associations at the fifth annual session of the group held recently in Atlantic City, New Jersey Dr Julian Price, secretary of the South Carolina *Medical Society, was named as president-elect,* and Mr John E Farrell, executive secretary of the Rhode Island Medical Society, was re-elected secretary-treasurer

Elected as new members of the executive committee were the retiring president, Dr Joseph H. Howard, of Connecticut, Dr Andrew Brunk, of Michigan, and Dr Ross T Wright of Washington

American Board of Obstetrics and Gynecology—The annual meeting of the Board was held in Chicago, Illinois, in May, at which time 236 candidates were certified. New bulletins, incorporating changes made at the recent meeting, are now available for distribution upon application and give details of all new regulations

The next scheduled examination (Part I), written examination and review of case histories, for all candidates will be held in various cities of the United States and Canada on February 3, 1950 Application may be made until November 5, 1949 Application forms and bulletins are sent upon request to American Board of Obstetrics and Gynecology, 1015 Highland Building, Pittsburgh 6, Pennsylvania

Grants for Research in Problems of Nutrition—Research in problems of nutrition in health and disease will be expanded as the result of six new grants-in-aid announced by Dr Robert S Goodhart, scientific director of the National Vitamin Foundation, New York City The grants, made semiannually, are part of a program to discover basic information on the effects and significance of vitamins to human health and resistance to disease The awards, effective July 1, include Dr Leonard J Goldwater and Dr Maurice E Shils, Columbia University School of Public Health, $2,850 to continue work on vitamin deficiencies and the ability of the body to get rid of poisons

Wins Essay Contest—Dr Seymour H Rinzler, adjunct in medicine and cardiology, Beth Israel Hospital, New York City, is the winner of the ninth annual essay contest of the Mississippi Valley Medical Society "for the best unpublished essay on a subject of practical and applicable value to the general practitioner of medicine" Dr Rinzler's paper is entitled "Present Status of

[Continued on page 1854]

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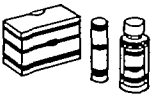
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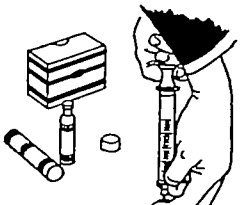
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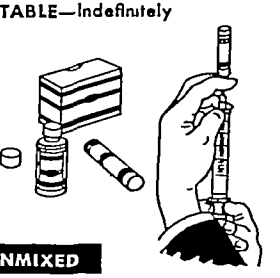
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[Continued from page 1852]

Medical and Surgical Therapy in Angina Pectoris" Dr Rinzler will receive a cash award, a gold medal, and a certificate of award, and will present his essay at the annual meeting of the Mississippi Valley Medical Society in St Louis, Missouri, September 28, 29, and 30

American College of Chest Physicians—Dr Donald McKay, Buffalo, was elected regent of the American College of Chest Physicians for a term of three years at the fifteenth annual meeting held in Atlantic City, New Jersey, in June Dr George Foster Herben, Yonkers, serves as governor of the College for the State of New York.

The following physicians in New York State received their fellowship certificates at the convocation held on June 4 Dr Hans Abeles, Kew Garden Hills, Dr David Bernstein, Brooklyn, Dr Eugene W Bogardus, Pleasantville, Dr Pasquale Ciaglia, Utica, Dr Ralph E Dwork, Brooklyn; Dr Martin Dworkin, New York City, Dr Hyman Fisher, Sunmount, Dr David I Frank, New York City, Dr Clyde W George, Buffalo, Dr Sidney I Goldberg, New York City, Dr Edwin J Grace, Brooklyn, Dr Benjamin Israel, Bronx, Dr Frank Lamberta, Jamaica, Drs Vera Leites, David Meyers, Daniel A. Mulvihill, Emil A. Naclerio, Lee Ogden, Edward E. Rockey, John L Pool, and Charles Schuman, all of New York City, and Drs Theodore J Talbot and William Weingarten, Staten Island

Examinations for Navy Medical Corps—The Bureau of Medicine and Surgery, Navy Department, has announced that examinations for the selection of candidates for appointment to the grade of lieutenant (j g) in the Medical Corps of the U S Navy will be conducted at all United States Naval Hospitals during the period September 12 to 16, 1949, inclusive Graduates of approved medical schools in the United States or Canada who have completed intern training in accredited hospitals or who will complete such training within four months of the date of examination and who are physically and in other respects qualified may be examined for appointment Candidates must be less than thirty-two years of age at the time of appointment

Detailed information as to form and procedure of application may be obtained from the offices of Naval Officer Procurement or from the Bureau of Medicine and Surgery, Navy Department, Washington 25, D C

MEETINGS

Past

Rochester Regional Academy of General Practice

Members of the Rochester Regional Academy of General Practice met in Avon on May 15 for a business meeting and scientific program, with Dr John McGovern of Honeoye Falls, president, in charge Dr James P Fleming, Rochester, chief proctologist of the Highland Hospital, Rochester, spoke on "Diagnosis and Treatment of Lower Bowel Condition"

World Health Organization

The second World Health Assembly, supreme organ of the World Health Organization, opened on June 13 at the Palazzo Venezia, Rome, Italy Delegates from the member states met in this fifteenth century Roman palace to discuss the principal health problems facing humanity today and the means whereby WHO can contribute to their solution

Tuberculosis Sanatorium Conference of Metropolitan New York

The acute tuberculosis problem within the New York metropolitan area was discussed on June 22 when administrators of forty tuberculosis hospitals in New York and New Jersey met in Jamaica for the 1949 general meeting of the Tuberculosis Sanatorium Conference of Metropolitan New York Dr William G Childress, chairman, presided at the conference

Among the papers presented were "Recent Advances in Treatment of Tuberculosis," Dr Richard H Bennett, medical director, Triboro Hospital, "Community Action for Tuberculosis Control," Dr James R Reuling, past-president, National Tuberculosis Association, and "The One Hundred Fifty Million Dollar Bond Issue for Hospital Construction in New York City," Dr Herbert R. Edwards, executive director, New York Tuberculosis and Health Association

New York State Public Health Conference

More than 1,500 public health officers, nurses, and educators attended the forty-fifth annual public health conference of the New York State Department of Health held during the week of June 20 at Lake Placid Dr Herman E Hilleboe, State health commissioner, presided at the general sessions, and speakers included Dr John J Masterson, president of the Medical Society of the State of New York, Dr Howard A Rusk, chief of the department of rehabilitation and physical medicine, New York University-Bellevue Medical Center, Dr C D Darling, psychiatrist, department of clinical and preventive medicine, Cornell University Medical School, and Dr Thomas Parran, dean of the graduate school of public health, University of Pittsburgh

American Neurological Association

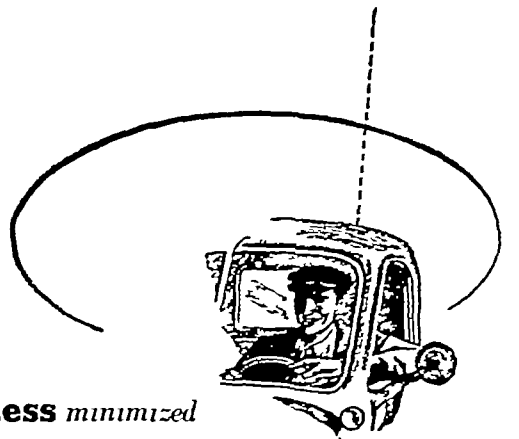
At the seventy-fourth annual meeting of the American Neurological Association, held in Atlantic City, New Jersey, from June 13 to 15, the following officers were elected for the year 1949–1950 Dr Henry W Woltman, Rochester, Minnesota, president, Dr Johannes M Nielsen, Los Angeles, California, first vice-president, Dr E Jefferson Browder, Brooklyn, second vice-president, Dr H Houston Merritt, New York City, secretary-treasurer, and Dr Charles Rupp, Philadelphia, Pennsylvania, assistant secretary

Future

American Medical Writers' Association

The sixth annual meeting of the American Medical Writers' Association will be held at the Jefferson Hotel, St Louis, Missouri, on September 28 A

[Continued on page 1856]



drowsiness *minimized*

allergic patients remain alert

Clinical reports describing the use of Thephorin in 2564 patients with hay fever and other allergies indicate an incidence of drowsiness of only 2.92%. In contrast with other antihistamines, Thephorin can therefore be given to motorists and other patients who have to remain alert. Highly effective and well tolerated in most cases, Thephorin is available in 25-mg. tablets and as a palatable syrup which permits convenient adjustment of dosage.

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'Roche'

[Continued from page 1854]

two-hour course of instruction in medical writing will be conducted by Dr J F Hammond, associate editor of the *Journal of the American Medical Association*, in the afternoon, and the evening program will include an address by Dr Howard R. Rusk, chairman of the department of rehabilitation and physical medicine, New York University Bellevue Medical Center, and associate editor of the *New York Times*

A program may be secured from the secretary, Dr Harold Swanberg, 209-224 W C U Building, Quincy, Illinois

PERSONALITIES

Honored

Dr Horace E Ayers, professor of obstetrics and gynecology, New York Medical College, Flower and Fifth Avenue Hospitals, as guest of honor at the annual faculty dinner at the college Dr G Worden Crissey, Dr Joseph M Purcell, and Dr William Van Doren, all of Mechanicville, whose total years of public service as "family doctors" are 165, at a dinner reception in Troy in May Dr Henry M Selby, New York Hospital, who received a one-year clinical fellowship in radiology from the American Cancer Society Dr Austin J Stillson, family doctor to thousands of Broome County residents for nearly fifty years, guest of honor at a community testimonial and dinner at Ansco Lake on June 29

Appointed

Dr I H Goldberger, assistant professor of pediatrics, New York University Medical School, as director of health education of the New York City Board of Education Dr Philip T Schlesinger, Glens Falls, to the board of directors of the Glens Falls Area Cerebral Palsy Association Dr James L Troupin, New York City, as physician-in-charge of the Ten Mile River Scout Camps of the Greater New York Councils, Boy Scouts of America Dr Theodore J C Von Storch, professor of neurology, Albany Medical College, as chief of the division of neuropsychiatry, Montefiore Hospital, New York City

Elected

As president and secretary, respectively, of the American Psychiatric Association, Dr George S Stevenson, medical director, National Committee for Mental Hygiene, New York City, and Dr Howard W Potter, Brooklyn

Speakers

Dr I D Bobrowitz, Otisville, on "The Significance of Positive Cultures," and Drs Rudolph Berke, Alexander Schomer, and Hyman Bass, New York City, on "Residual Cavities in Pulmonary Coccidioidomycosis Follow-up Studies," at the fifteenth annual meeting of the American College of Chest Physicians June 2 to 5 in Atlantic City, New Jersey Dr Karen Horney, New York City, on "Dynamics of Psychotherapy" at the convention of the American Psychiatric Association May 23 to 27 in Montreal, Canada

Dr John L Norris, Rochester, on "Alcoholics in Industry" at a meeting of the Rochester Advertising Club June 9 Dr John F Rogers, secretary of the Dutchess County Medical Society, on socialized medicine at a meeting of the Dutchess County Women's Republican Club held June 2 in Poughkeepsie Dr Leo F Simpson, Rochester, past-president of the Medical Society of the State of New York, at the joint commencement exercises in Chancellors Hall, Albany, of the Albany Medical College and the Union University School of Nursing, on June 4 Dr J C Zillhardt, Binghamton, president of the Broome County Medical Society, on heart disease at the meeting of the Binghamton Exchange Club May 26 in Binghamton

New Offices

Dr Lyndon R Barnett, who recently received his honorable discharge from the U S Navy Medical Corps, general practice in Roscoe Dr John F Dixon, Jr, formerly of Hempstead, general practice in Dryden Dr William H Kober, Lima, industrial physician with the Pennsylvania Railroad at Harrisburg, Pennsylvania Dr D H R Lester, practice of surgery in Schenectady Dr Joseph Phelps, formerly of Deposit, general practice in Edmeston Dr John C Roemmelt, practice of internal medicine, Elmira

COUNTY NEWS

Albany County

A Cancer Teaching Day, presented by the Albany County Medical Society on May 25, included lectures by Dr Harry Green, Yale Medical College, and Dr H W Dargeon, Memorial Hospital, New York City, on the respective topics "Biological Differentiation of Malignant Tissue" and "Cancer in Childhood" A motion picture illustrating the problems of early diagnosis of cancer was shown by the New York State Department of Health, and Dr George T Pack, Cornell University Medical College, spoke at the evening session on "Diagnosis and Treatment of Sarcomas of the Soft Somatic Tissues"

At the June 22 meeting of the County Medical Society the members voted unanimously to voice their opposition to current legislation, H R. 2893 Also Dr Theodore J C Von Storch of Albany Medical College gave a talk on "Newer Concepts in Neurology"

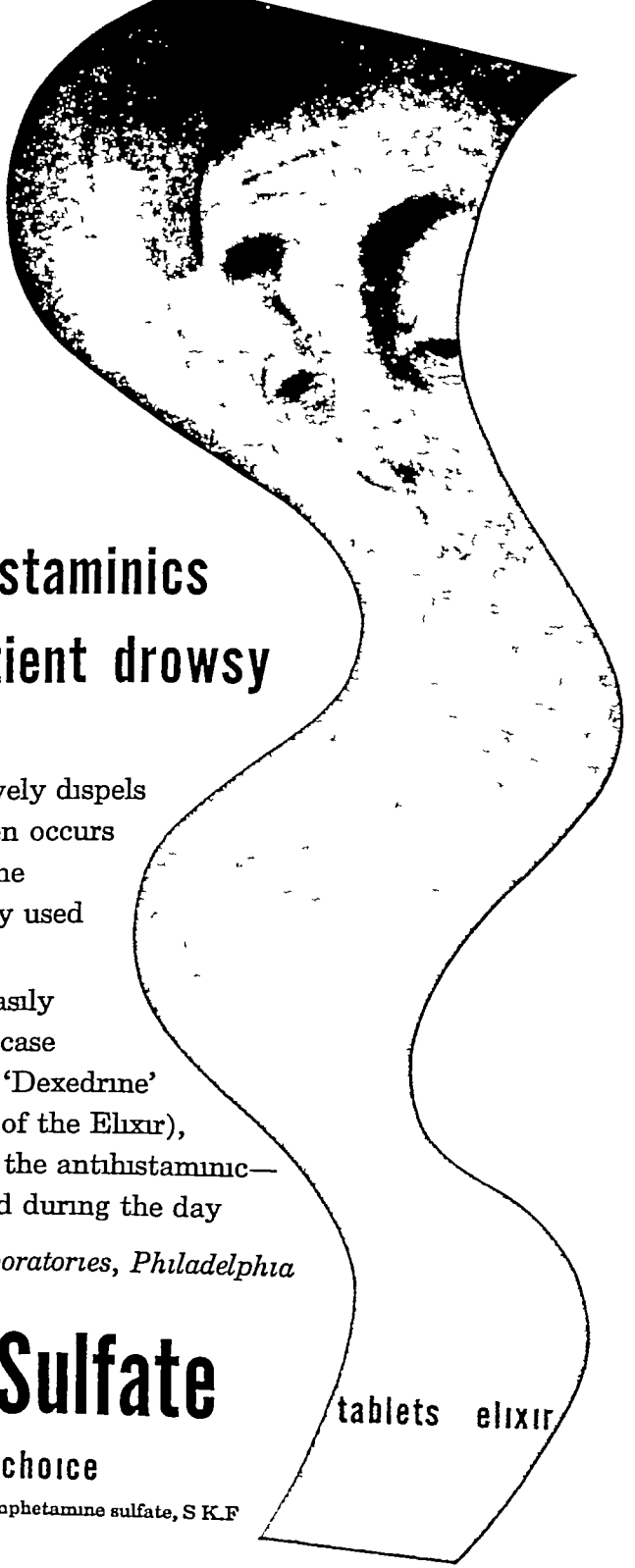
The second annual joint field day of the Albany County Medical Society and the Albany County Bar Association was held on June 30 at the Shaker Ridge Country Club

Bronx County

Election of officers was held at the annual meeting of the Bronx County Medical Society on June 15, and the following were elected Dr Henry J Barrow, president, Dr Abraham B Tamis, president-elect, Dr Abraham J Fleischer, vice-president, Dr Goodlatte B Gilmore, secretary, and Dr Charles W Frank, treasurer

Speaker at the meeting was Mr William Alan Richardson, editor, *Medical Economics*, who addressed the members on the topic, "Medicine in the British Isles—Spring, 1949"

[Continued on page 1858]



when the antihistaminics make the patient drowsy

'Dexedrine' Sulfate effectively dispels the drowsiness that so often occurs as a reaction to many of the antihistaminic drugs widely used against allergy

Dosage of 'Dexedrine' is easily adjusted to the individual case

The usual dose is 5 mg of 'Dexedrine' (1 tablet, or 1 teaspoonful of the Elixir), taken simultaneously with the antihistaminic—additional doses as required during the day

Smith, Kline & French Laboratories, Philadelphia

Dexedrine* Sulfate

tablets elixir

the anti-depressant of choice

*T.M Reg U.S Pat. Off. for dextro-amphetamine sulfate, S K.F

[Continued from page 1856]

Broome County

The June 14 meeting of the Broome County Medical Society featured discussions of medical-legal problems, proposed compulsory health insurance, and Blue Cross and Blue Shield programs Speakers and topics were as follows

Mr William Night, attorney, on legal aspects of medical reports by doctors to insurance adjusters and attorneys, Mr R. S Phillips of Blue Cross, who discussed the Blue Cross and Blue Shield Plans, and Mr Darwin R Wales, attorney, who spoke on compulsory health insurance

Cattaraugus County

The annual meeting of the Cattaraugus County Medical Society was held on June 9, and officers elected for the following year were Dr Ellwyn Heier, Cattaraugus, president, Dr W Boyd Arthurs, Olean, vice-president, and Dr George C Cash, Olean, secretary-treasurer

Chemung County

A regular meeting of the Chemung County Medical Society was held on May 25, and on May 19 the Society held a special memorial meeting in honor of Dr Alexander Mark, who died on April 18

Chenango County

Dr Charles Leroy Steinberg, senior visiting physician and physician-in-charge, Arthritis Clinic, Rochester General Hospital, addressed the Chenango County Medical Society on June 14 on arthritis, its diagnosis and management This program was postgraduate instruction arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York with the cooperation of the New York State Department of Health

Cortland County

"Alcoholism" was the subject discussed by Dr Daniel F Luby, of Syracuse, at the meeting of the Cortland County Medical Society on May 20 The program was postgraduate instruction arranged by the Medical Society of the State of New York and the New York State Health Department

Delaware County

A dinner meeting was held by the Delaware County Medical Society on June 14 Members of the County Society heard Dr Michael Lipari, district health officer, talk on cancer case-finding and clinics

Dutchess County

The annual afternoon of golf followed by a dinner meeting was held by the Dutchess County Medical Society on June 15 at the Harlem Valley State Hospital Dr Herman E Hilleboe, New York State Commissioner of Health, was the speaker for the evening

Erie County

The second annual sports day and dinner of the Erie County Medical Society will be held at the Orchard Park Country Club on August 18 Announcement was made by Dr E Dean Babbage, chairman of the committee on outing arrangements The sports day will be stag and will begin with a golf tournament in the afternoon Cocktails and dinner will be served in the evening at the Country Club

Franklin County

Dr Frederick Patry of Albany was the guest speaker at the meeting of the Franklin County Medical Society held on June 1 Dr Patry spoke on psychiatry

Fulton County

A resolution stating that the Fulton County Medical Society is opposed to any form of compulsory health insurance was adopted at the May 19 meeting of the Society Dr Linn J Boyd, director of medicine, New York Medical College, addressed the members on the topic, "Pulmonary Embolism." This was a program of postgraduate instruction arranged by the New York State Medical Society with the cooperation of the State Department of Health

Herkimer County

On June 14 members of the Herkimer County Medical Society heard an address by Dr Gordon P McNeer, associate attending surgeon, Memorial Hospital, New York City, on the topic, "Cancer Detection Clinics" This was a program of postgraduate instruction

Jefferson County

A regular monthly meeting of the Jefferson County Medical Society was held on Tuesday, May 17, at the Black River Valley Club The scientific program consisted of an address by Dr Leon H Griggs, clinical professor of medicine (dermatology and syphilology), Syracuse University College of Medicine, on "Common Diseases of the Skin—Illustrated with Color Photography"

June 9 was the date of the annual outing meeting of the Jefferson County Medical Society together with the St. Lawrence County Medical Society The outing was held at the Thousand Island Country Club and was followed by dinner The dinner speaker was Senator Henry A. Wise, who spoke on "Medical Legislation Problems"

Kings County

A joint meeting of the Kings County Medical Society and the Brooklyn Gynecological Society was held on May 17 in McNaughton Auditorium The scientific program arranged by Dr Charles A Gordon included the following speakers and topics

Dr James O'Leary, "Ten Years of Maternal Mortality in Brooklyn", Dr Alexander Rosenthal, "Abortion", Dr Stanley C Hall, "Toxemia", Dr Henry S Acken, "Cardiac Disease", Dr J Thornton Wallace, "Cesarean Section," and Dr Charles A Gordon, "Hemorrhage"

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[Continued on page 1862]

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- Low Index of Allergenicity
- Pleasant Tasting

The antibiotic properties of bacitracin can now be advantageously employed in the treatment of many oral and pharyngeal infections due to bacitracin-sensitive organisms Each troche provides 1,000 units of bacitracin, and maintains high bacitracin salivary levels for at least one hour Thus Vincent's infection and other local infections of the mouth, tonsils, and pharynx can be subjected to the direct antibiotic influence of bacitracin

Bacitracin Troches-C S C are outstanding because of their low index of allergenicity Local allergic reactions in the oral and pharyngeal mucous membranes do not complicate their use as with other antibiotic troches Pleasant tasting, each troche remains intact for 1 to 2 hours Available on prescription at all pharmacies in bottles of 25

C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION, 17 EAST 42ND STREET, NEW YORK 17, NEW YORK

[Continued from page 1856]

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[Continued on page 1862]

IT CAN BE DONE
. . . but don't try it!

Sometimes it's possible to break all the rules—and get away with it

The famous Tower of Pisa, for instance, has successfully defied both sound engineering practice and the law of gravity for over 800 years

But for most of us, most of the time, the rules hold

That is particularly true when it comes to saving money

The first rule of successful saving is *regularity* saving away part of every pay check, month after month

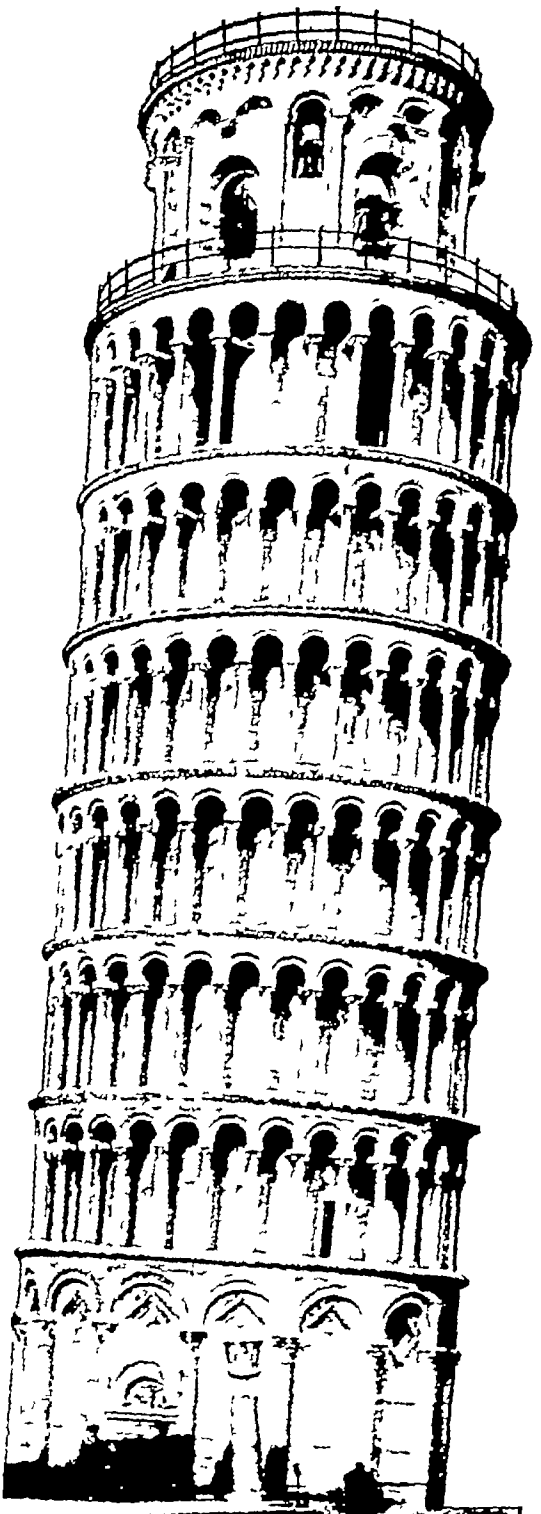
Once in a blue moon, of course, you'll come across someone who can break that rule and get away with it But the fact is that most of us *cannot*

For most of us, the one and only way to accumulate a decent-size nest egg for the future and for emergencies is through regular, automatic saving

In all history there's never been an easier, surer, more profitable way to save regularly than the U S Savings Bond way

Those of us on a payroll are eligible to use the wonderful Payroll Savings Plan The rest of us can use the equally wonderful Bond-A-Month Plan through our local bank

Use whichever is best for you But—*use one of them!*



AUTOMATIC SAVING IS SURE SAVING— U. S SAVINGS BONDS

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HOSPITAL NEWS

Brooklyn, Syracuse Chosen as Medical Centers

THE trustees of the new State University recommended on June 16, by a vote of 10 to 1, that the University locate its metropolitan medical center in Brooklyn and its upstate medical center in Syracuse

The resolution adopted, subject to approval by the Board of Regents, authorizes the executive officers of the State University to enter into and carry out agreements for incorporating into the University the Long Island College of Medicine, Brooklyn, and the Syracuse Medical College, Syracuse University

The State plans to take over the colleges of medicine prior to September and to operate them as integral parts of medical centers at that time

Enrollment per class at the Long Island College is now 110, but the freshman class is expected to be expanded to 150 in September The freshman class at Syracuse, which has been averaging 58 students, will be increased by at least 50 per cent

The 1949 Legislature appropriated $10,000,000 for the State University, and it is expected that more than half of that amount will be spent on the medical centers

The trustees acted upon the recommendation of their Committee on Medical Education, headed by Colonel Charles Garside, which has been studying the problem for nine months

When the State University takes over the colleges, it is expected that most of the faculty members will be retained, with the faculties enlarged

The Medical Education Committee said it restricted its considerations of the metropolitan area center to the Bronx, Brooklyn, and Queens and that the proposals in behalf of the Bronx and Queens envisaged the establishment of a wholly new institution, to which the trustees were opposed.

One of the most compelling factors in support of the Brooklyn proposal, the report added, was "the presence of a well-respected and cooperative faculty at the Long Island College of Medicine The committee has been repeatedly advised that it would take ten years or more to obtain a faculty of equivalent standing if the State were forced to start entirely anew"

At a meeting in July, the Board of Regents approved the selections

Name Medical Board for New Cancer Hospital

APPOINTMENT of the medical board of the Francis Delafield Hospital for Cancer, in Manhattan, which will be affiliated with the Columbia-Presbyterian Medical Center, has been announced by Dr Marcus D Kogel, New York City commissioner of hospitals Approval was given the following nominations received from the trustees of the College of Physicians and Surgeons, Columbia University

Dr Robert F Loeb, visiting physician and director of medical service, Dr J Lawrence Pool, visiting neurologic surgeon and director of neurologic surgery service, Dr Howard C Taylor, visiting obstetrician and gynecologist and director of obstetric and gynecologic service, Dr Harry P Smith, visiting pathologist and director of pathologic service, Dr Ross Golden, visiting radiologist and director of radiologic service, Dr George H Humphreys, visiting surgeon and director of surgical service, and Dr George F Cahill, visiting urologist and director of urologic service

Dr Willard C Rappleye, dean of the College of Physicians and Surgeons and vice-president in charge of medical affairs, Columbia University, will be ex officio member of the new medical board.

Dr Kogel stated in the general order making the appointments that "the individuals above named are hereby declared to be the medical board of the Francis Delafield Hospital, and the medical board is authorized to proceed in due course with the organization of a complete medical staff, subject to the rules and regulations of the Department of Hospitals"

Cornerstone ceremonies for the hospital were held in September, 1948, and it is expected that the 308-bed hospital will be in operation early in 1950

Award Contracts for New Building at Binghamton State Hospital

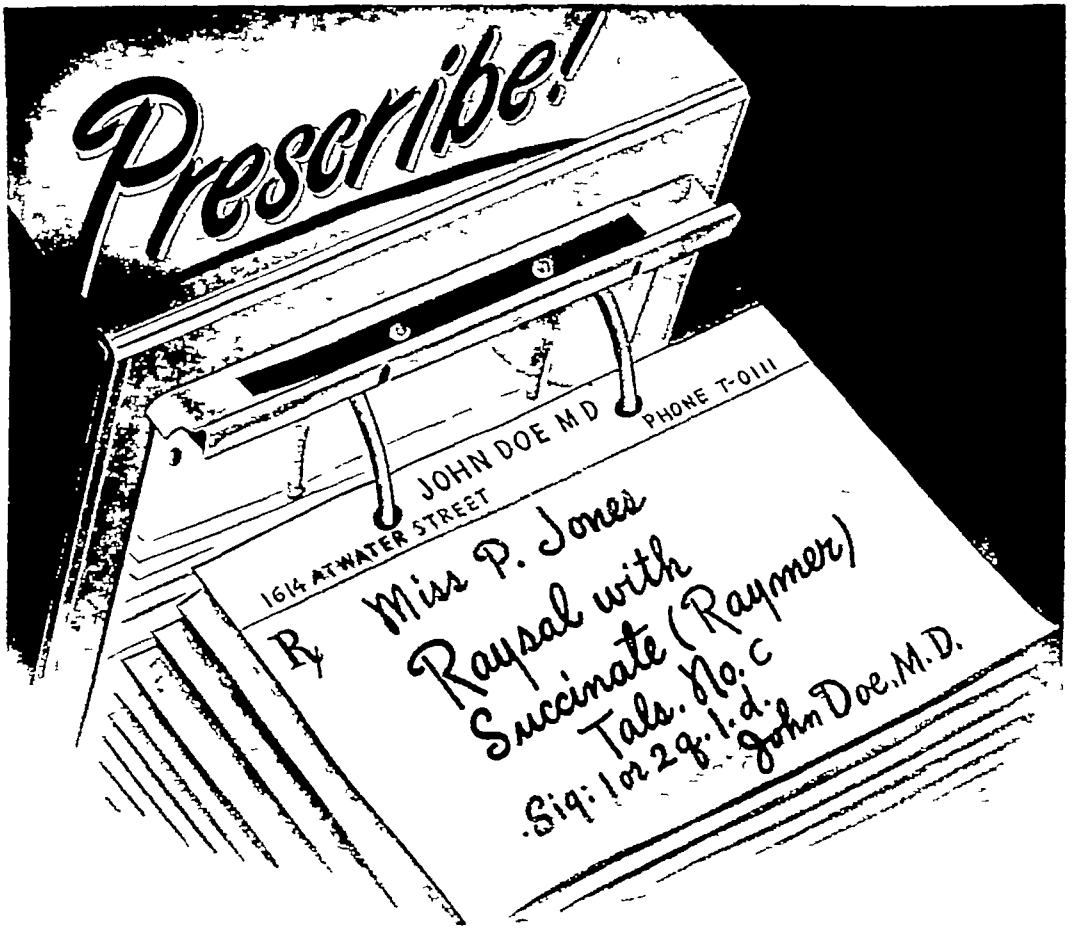
CONTRACTS totaling $6,468,562 have been awarded for construction of a 768-bed Medical-Surgical Building at Binghamton State Hospital This important addition to Binghamton State Hospital is a part of New York State's $72,000,000 building program to relieve overcrowding in its 27 mental institutions, urged by Governor Thomas E Dewey as one of the State's most pressing needs

Construction is to start this summer and will require two to three years for completion The new building will be located northeast of the existing Fairmont Building, and will have the most modern laboratory and hospital equipment to provide the best medical and surgical treatment for physical illnesses and disabilities of mental patients who regularly receive this care in addition to therapeutic psychiatric treatment for mental disorders

Binghamton State Hospital is virtually a small city in itself with its own power plant, fire-prevention system, farms, shops, and nurses' homes. The present hospital houses more than 2,600 patients and provides supervision for an additional 230, while about 60 have been placed in family care homes in the vicinity

The new building project is one of several planned by New York State to relieve overcrowding in its 27 mental institutions, which are now caring for more than 99,000 patients It is the third large medical-surgical unit to be advanced for construction this year, being similar to those already under construction at State mental hospitals at Poughkeepsie and Buffalo

[Continued on page 1862]



for the Treatment of

ARTHRITIS and RHEUMATISM

RAYSAL WITH SUCCINATE The *ethical* salicylate-succinate formula Employs three principal ingredients—salicylate, iodine, and succinate designed to combine the almost specific antiarthritic and antirheumatic action of the salicylates, the stimulating and nutritionally corrective effects of iodine and the salicylate detoxifying action of succinic acid

An ideal companion medication for other therapeutic measures employed in arthritis and rheumatism RAYSAL WITH SUCCINATE will enhance the efficiency of RAYFORMOSIL a safe and effective combination for use in your next case Sample and literature will be sent upon request

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ENTERIC COATED TABLETS (SALOL)

Raysal	5 grains
(Representing 43% Salicylic Acid and 3% Iodine in Calcium Sodium Phosphate Buffer Salt Combination)	
Succinic Acid	2 grains

Available for office use and at your pharmacy on prescription

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[Continued from page 1860]

NEWS NOTES

In the fifty-ninth annual report of Beth Israel Hospital, New York City, for 1948, Dr Maxwell S Frank, executive director, reported that the hospital furnished 116,116 days of hospital care to 12,173 patients during the year In addition, 8,512 patients made a total of 69,527 visits to the hospital's forty clinics Two thousand, six hundred seventy-two babies were born at the hospital during the year

The professional staff of the North Country Community Hospital, Glen Cove, has voted to inaugurate a memorial fund in the name of the late Dr Myron R Jackson of Oyster Bay The fund will have a double purpose First, it is intended that a portrait of Dr Jackson shall be painted and hung in the staff room of the hospital Second, the Myron R Jackson Award will be established This Award will be presented each year to an outstanding medical resident whose medical ability, personality, and character compare favorably with those of the man in whose name the award is made Any balance remaining after these two purposes have been fulfilled will be donated to the building fund for a conference room at the hospital

Members of the Memorial Fund Committee are Dr John Galbraith, chairman, and Dr J Wesley Bulmer, Dr Ralph Emerson, and Dr A H Johnson

Dr Daniel H Deyoe, former superintendent of Mary Imogene Hospital, Cooperstown, will become director of the University Hospital and associate professor of community health at the University of Missouri, Columbia, Missouri, effective September 1

Dr Cecil L Schultz, former superintendent of the Columbia County Sanatorium at Philmont, has assumed the superintendency of the Suffolk County Tuberculosis Sanatorium which is located near Lake Ronkonkoma Dr Schultz was formerly assistant superintendent of the J N Adam Memorial Hospital at Perrysburg and was senior officer at the Veterans Administration Hospital near Ashville, North Carolina

The New York Hospital, New York City, marked its 178th anniversary on May 17 with Charter Day exercises and a reception for the Society of the New York Hospital Dr Henry N Pratt, director of the hospital, spoke on "Hospitals, Medicine, and Government," and Dr James H Wall, medical director of the Westchester division of the hospital, spoke on "Modern Psychiatry as Practiced at the Westchester Division"

Dr Henry Kaplan of Spring Valley was named head of the staff of Good Samaritan Hospital, Suffern, at the annual dinner of the group held June 7 Others elected include Dr Paul Ingrassia, Nanuet, vice-president, and Dr Matthew Dallago, Monsey, secretary-treasurer Named to the executive committee were Dr R. S Sengstacken, Dr Harold Grosselfinger, Dr John Petrone, Dr Solomon Kolack, and Dr George Unsworth, all of Suffern, Dr Julius Pomerantz and Dr Harold Heller of Spring Valley, and Dr Ingrassia

Dr Harold G Anderson, assistant member of the Rockefeller Institute for Medical Research, has become physician-in-charge at Irvington House for Children, Irvington, succeeding Dr Ann G Kuttner, now at New York University The appointment was effective July 1

Dr David L Block, Tivoli, has been appointed physician at Ward Manor, Red Hook, replacing Dr L W Stoller Dr Block, who is attendant surgeon at the Northern Dutchess Health Center, is physician for the Tivoli School and health officer for Red Hook.

Appointment of 23 additional doctors to the resident house staff of Albany Hospital has been announced by Dr Thomas A Hale, director, bringing the total resident house staff to 65 Appointments were effective July 1 for one year

Medical News

[Continued from page 1858]

Livingston County

The Livingston County Medical Society met on June 8 at the Big Tree Inn in Geneseo and was addressed by Dr Donald E Posson, of Rochester, on pediatric emergencies The Society also went on record as opposed to state medicine

Monroe County

A regular meeting of the Monroe County Medical Society was held on May 24 The speaker for the meeting was Mr L R Blanchard, general executive editor of the Gannett Newspapers Mr Blanchard's talk was entitled "So This Is England" and was a discussion of current observations on medical care in Great Britain

Nassau County

On May 31 the annual meeting of the Nassau County Medical Society was held Election of officers was held with the following being elected Dr Walter C Freese, president, Dr Leo Flood, president-elect, Dr John Galbraith, vice-president and Dr Irving Drabkin, secretary-treasurer

New York County

Election of officers of the New York County Medical Society was held on May 23 with the election to office of the following Dr John J H Keating, president, Dr Kenneth M Lewis, president-elect, Dr Arthur M Master, vice-president, Dr B Wallace Hamilton, secretary, and Dr Conduct W Cutler, Jr, treasurer



Write for Sample

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EVENING COURSES IN LAB & X RAY AVAILABLE
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WOMAN'S AUXILIARY

TO THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

New York Auxiliary Attends A M A Convention

THE Woman's Auxiliary to the Medical Society of the State of New York was represented by thirty-three delegates at the annual convention of the Woman's Auxiliary to the American Medical Association, held in Atlantic City in June There were 217 delegates registered, and the New York State Auxiliary had the largest state delegation

Mrs Luther H Kice, of Garden City, who retired as president of the national group, presided at the various sessions and was honored at a tea and a luncheon Mrs Kice will serve next year as a member of the board of directors She was also elected to the nominating committee for 1950, and later chosen chairman of this group

COUNTY NEWS

Albany County

The annual meeting of the Albany County Auxiliary was held May 24 at the Colonie Country Club, Albany, preceded by a luncheon and hobby show

Annual reports were given at the meeting, and the election of officers was held New officers are Mrs William G Richtmyer, president, Mrs William Feltman, president-elect, Mrs John Mosher, vice-president, Mrs John Mertz, recording secretary, and Mrs Lyle A Sutton, treasurer

On June 14 the executive board gave a luncheon for the retiring president, Mrs Albert M Yunich, at the home of Mrs William McC Thompson

Broome County

Annual reports and the election of officers featured the annual meeting of the Broome County Auxiliary, held June 1 at the Binghamton Club in Binghamton Mrs Windsor R Smith, president, was in charge of the meeting Reports of the annual convention in Buffalo were given

Officers elected include Mrs Robert Bogdasarian, president, Mrs F Albert Baumann, vice-president, Mrs Eugene D Derrick, recording secretary, Mrs Paul B Jenkins, corresponding secretary, Mrs Leonard Steed, treasurer, and Mrs Windsor R Smith, Mrs Charles D Squires, and Mrs William E Low, directors for one year

Cattaraugus County

Mrs William C Goodlett, of Olean, was elected president of the Cattaraugus County Auxiliary at a meeting held in May Other officers are Mrs W Boyd Arthurs, Olean, vice-president, Mrs N P Johnson, Olean, secretary, Mrs David J Maloney, Olean, treasurer, Mrs C A Shaffer, Olean, corresponding secretary, Mrs Fred W Kehr, Olean, historian, Mrs C A. Greenleaf, Olean, chairman, entertainment committee, Mrs George C Cash, Olean, chairman, publicity, Mrs Murray Reswick, Olean, chairman, public relations and legislation committees, Mrs Ellwyn E Heier, Cattaraugus, *Hygeia*, and Mrs E C Moore, Olean, chairman, membership committee

The last meeting of the year was held in June at The Castle in Olean Mrs M M Fulkerson reviewed *Cry, the Beloved Country*, by Alan Paton, and Miss Patricia Hickson of Cattaraugus was announced as the winner of the nurses scholarship Plans were made for a supper dance to be held at the Elkdale Country Club in Salamanca Mrs Thomas G Gardner of Salamanca is chairman and Mrs C A Shaffer of Olean, co-chairman

Clinton County

The annual meeting of the Clinton County Auxiliary was held June 13 at the Royal Savage Inn, Plattsburg Mrs E W Sartwell, of Peru, the retiring president, conducted the meeting and presented the guest speaker, Mrs Hugh G Henry, of Germantown, president-elect of the State Auxiliary

Newly elected officers for the year are Mrs Andrew Speare, Chazy, president, Mrs James J Reardon, Plattsburg, vice-president, Mrs Gerard deGrandpre, Plattsburg, secretary, and Mrs Aaron Davis, Mooers, treasurer

Herkimer County

The annual meeting of the Herkimer County Auxiliary was held on May 17 with a luncheon at the Palmer House in Herkimer Twenty-seven members attended and heard the guest speaker, Mrs Thomas E Bullard, of Schuylerville, give a talk on "Fifty Years a Doctor's Wife"

A resolution was adopted that each member write to local, State, and national government representatives opposing the proposed health insurance bill before Congress Mrs George Burgin, Little Falls, the new president, was in charge of the meeting

Nassau County

Mrs Clymer A Long, new president of the Nassau County Auxiliary, entertained recently at her home in Freeport for the board of directors, when plans for the year were discussed New committee chairmen announced include Mrs Spencer Caldwell, membership, Mrs Carmen Razzano, program, Mrs Percival Robin, public health and public relations, Mrs Henry D Safford, legislation and medical economics, Mrs Joseph Provezano, reception, Mrs Gerald Farinola, hospitality, Mrs. Ralph A Camardella, press and publicity, Mrs. Ernest Santemma, historian, Mrs Eugene Miele, archives, Mrs Byron D St John, parliamentarian, Mrs George D Chrispmann, ways and means, Mrs Dwight Bonham, *Hygeia*, Mrs Franklin Fry, finance and budget, and Mrs August Fincke, Physicians' Home

Special committee chairmen are Mrs Edward A Dawson, scholarship fund, Mrs Louis Chmielew-

(Continued on page 1868)

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[Continued from page 1864]

ski, Women's Forum, and Mrs Clement Boccalini, decorating Subcommittees on public health are Mrs Arthur Martin, cancer, Mrs William Bartels, public health nursing council, Mrs Nathaniel Robin, mental hygiene, and Mrs Theodore Curphey, tuberculosis

Oneida County

Mrs Arthur F Gaffney, Clinton, was re-elected president of the Oneida County Auxiliary at the annual meeting held at Hart's Hill Inn, Whitesboro, on May 17 Other officers elected are Mrs Frank H Valone, Rome, president-elect, Mrs James I Farrell, Whitesboro, vice-president, Mrs Emanuel DeLalla, Utica, recording secretary, Mrs George Wineburgh, Utica, corresponding secretary, and Mrs Fred G Jones, Utica, treasurer

Board members elected for three years are Mrs Ward W Millias, Rome, Mrs David Kidd, Utica, and Mrs James G Douglas, Utica, for one year, Mrs Gordon Holden, Utica

Reports on the annual convention in Buffalo and reports of officers and committee chairman for the year were presented

Orange County

Dr Robert W McCullough and Dr Allen H Kemston, of Port Jervis, spoke on compulsory health insurance at the meeting of the Orange County Auxiliary held June 14 at the Flo-Jean, Port Jervis, following a luncheon The speakers pointed out the financial burden to wage-earners, such as increased income tax, added payroll tax, the decline in the quality of medical care, and the loss of the confidential relationship between patient and their doctors, should a system of compulsory insurance instead of a voluntary health plan be established in this country

Mrs William J Lavelle, president of the State Auxiliary, was guest of honor at the meeting and spoke briefly on the work that the county auxiliaries in the State are doing A report of the State convention in Buffalo was given by Mrs Frederick Small of Newburgh

The next regular meeting of the Orange County Auxiliary will be a membership tea to be held October 11 at the home of Mrs Walter A Schmitz, State Hospital, Middletown

Oswego County

New officers for the Oswego County Auxiliary include Mrs Milton W Kogan, president, Mrs F J Loomis, president-elect, Mrs John Rodgers, vice-president, Mrs Frank Frost, recording secretary, Mrs J G Ringland, corresponding secretary, Mrs Harold McGovern, treasurer, and Mrs G Kalamirades, assistant treasurer Directors are for one year—Mrs G A Marden and Mrs D D O'Brien, for two years—Mrs A. B Thompson and Mrs Olin J Mowry, and for three years—Mrs J E Fox and Mrs K W Jarvis

On June 25, the Auxiliary sponsored a "Doctors and Wives Party" with a dinner dance for husbands of members Mrs Charles Ahern of Oswego and Mrs John Rodgers of Fulton were co-chairmen

Steuben County

Mrs Eldred J Stevens, Hammondsport, is the new president of the Steuben County Auxiliary, elected at the annual meeting, when all officers were chosen for two year terms Other officers are Mrs Stephen V Collins, Corning vice-president, Mrs Kenneth Rowe, Hornell, recording secretary, Mrs Coburn Campbell, Hammondsport, corresponding secretary, and Mrs Leon Roe, Hornell, treasurer

A committee has been appointed to report at the September meeting on the progress made towards establishing a nursing scholarship Two student nurses and a supervisor from Alfred University provided an interesting program at the June meeting

Suffolk County

New officers of the Suffolk County Auxiliary, elected April 27, include Mrs Albert M Biglan, Central Islip, president, Mrs Edward Klane, Patchogue, president-elect, Mrs Wilbur Stokes, Patchogue, first vice-president, Mrs Julius P Gale, Lindenhurst, second vice-president, Mrs Jacob Dramitzke, Patchogue, recording secretary, Mrs William Seldeen, Amityville, treasurer, and Mrs Ferdinand R Pitrelli, Central Islip, corresponding secretary

Directors are for three years—Mrs Benjamin L. Feuerstein, Brightwaters, and Mrs Edwin Kolb Holtsville, for two years—Mrs Myron L. Hafer, Patchogue, and Mrs Leon J Barber, Patchogue, and for one year—Mrs S Averett Arnold, Bayshore and Mrs George P Bergmann, Greenport

Committee chairmen include Mrs Peter Lerner, Sayville, program, Mrs William C Carhart, East Islip, legislation, Mrs Stanley C Rau, Amityville, press and publicity, Mrs Myron L Hafer, Patchogue, hospitality, Mrs Herman Bloomstein, East Setauket, finance, Mrs Paul Brinley, Patchogue, membership, Mrs Charles C Murphy, Amityville, *Hygeia*, Mrs Milton Bergmann, West Islip, historian, Mrs Edward Klane, Patchogue, and Mrs Julius P Gale, Lindenhurst public relations, and Mrs George P Bergmann, Greenport, nursing scholarship

Tompkins County

Mrs J W Hirshfeld was chosen president of the Tompkins County Auxiliary at the annual meeting in April Other officers are Mrs C Douglas Darling, president-elect, Mrs Summer Kingsley, secretary, Mrs George McCauley, treasurer Mrs Murray George, chairman, legislation committee, and Mrs Edward Hall, chairman, public relations committee The officers were installed at the May meeting

On June 15, the annual membership tea was held at Herman W Biggs Memorial Hospital, Ithaca, overlooking Cayuga Lake In charge were Mrs Lee Sprinkel and Mrs H B Sutton

Wayne County

Officers of the Wayne County Auxiliary for the following year are Mrs James Arseneau, Lyons, president, Mrs David Ennis, Lyons, president-elect, Mrs George Howard, Williamson, vice-president, Mrs Thomas Hobbie, Sodus, secretary and Mrs. Joseph Kaufman, Newark, treasurer

On May 12 the Auxiliary entertained the members of the Tompkins County Medical Society at a buffet supper at the Newark Country Club, with about thirty-three attending At the June meeting, held June 7 in Lyons, Dr Charles Steyaart of Lyons was guest speaker on the subject of compulsory health insurance

Committee chairmen appointed by the president include Mrs David Ennis, Lyons, program and public relations, and Mrs Ralph Munzner, Alton, legislation

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Bronx	Henry J Barrow	Bronx	G B Gilmore	Bronx	C W Frank	Bronx
Broome	L J Flanagan	Binghamton	R. S McKeeby	Binghamton	J W Kane	Binghamton
Cattaraugus	N P Johnson	Olean	W B Arthurs	Olean	G C Cash	Olean
Cayuga	C T Yarington	Moravia	J D Hammond	Auburn	L H Rothschild	Auburn
Chautauqua	W L King	Jamestown	Edgar Bieber	Dunkirk	C E Hallenbeck	Dunkirk
Chemung	M F Butler	Elmira	J J McConnell	Elmira	J A Mark	Elmira
Chenango	Newton Brachin	Greene	N C Lyster	Norwich	N C Lyster	Norwich
Clinton	Aaron Davis	Mooers	K. M Clough	Plattsburg	K M Clough	Plattsburg
Columbia	R D Shaw	Stottville	L. J Early	Hudson	L J Early	Hudson
Cortland	R H Kerr	Cortland	E F Higgins	Cortland	F F Sornberger	Cortland
Delaware	G M Palen	Margaretville	S G Edgerton	Delhi	S G Edgerton	Delhi
Dutchess	C A. Crispell	Poughkeepsie	J F Rogers	Poughkeepsie	J F Rogers	Poughkeepsie
Erie	Roy L Scott	Buffalo	M J Kazmierczak	Buffalo	W S Walls	Buffalo
Essex	T J Cummins	Mineville	J E Glavin	Port Henry	J E Glavin	Port Henry
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Fulton	H C Hagaman	Gloversville	R C Warner	Gloversville	W H Raymond	Johnstown
Genesee	S J. Gerace	Batavia	C C Koester	Batavia	C C Koester	Batavia
Greene	M Viviano	Tannersville	W M Rapp	Catskill	M H Atkinson	Catskill
Herkimer	R. W Dennis	Herkimer	R. C Ashley	Little Falls	R C Ashley	Little Falls
Jefferson	W F Smith	Watertown	C A Prudhon	Watertown	L E Henderson	Watertown
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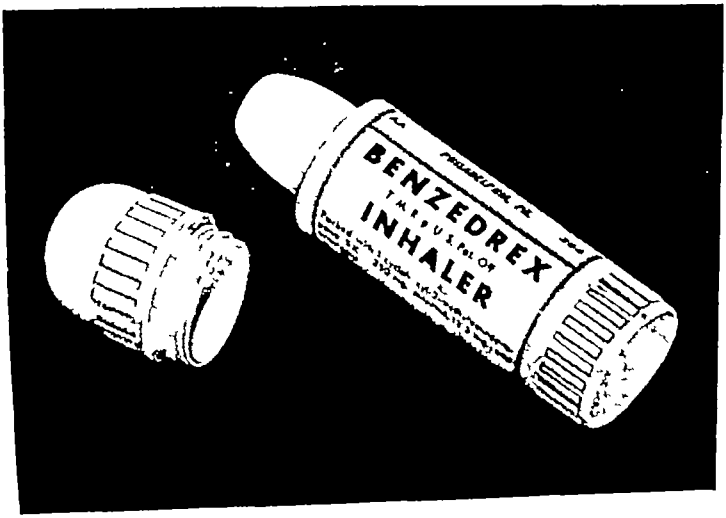
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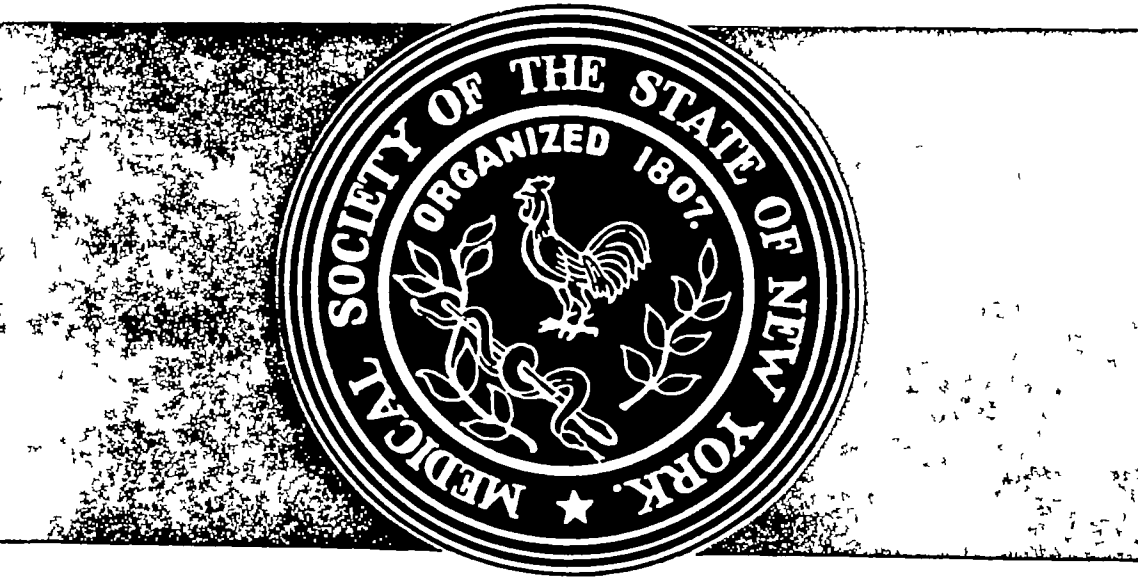
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NEW YORK STATE
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Part II



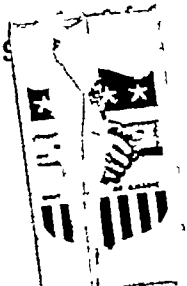
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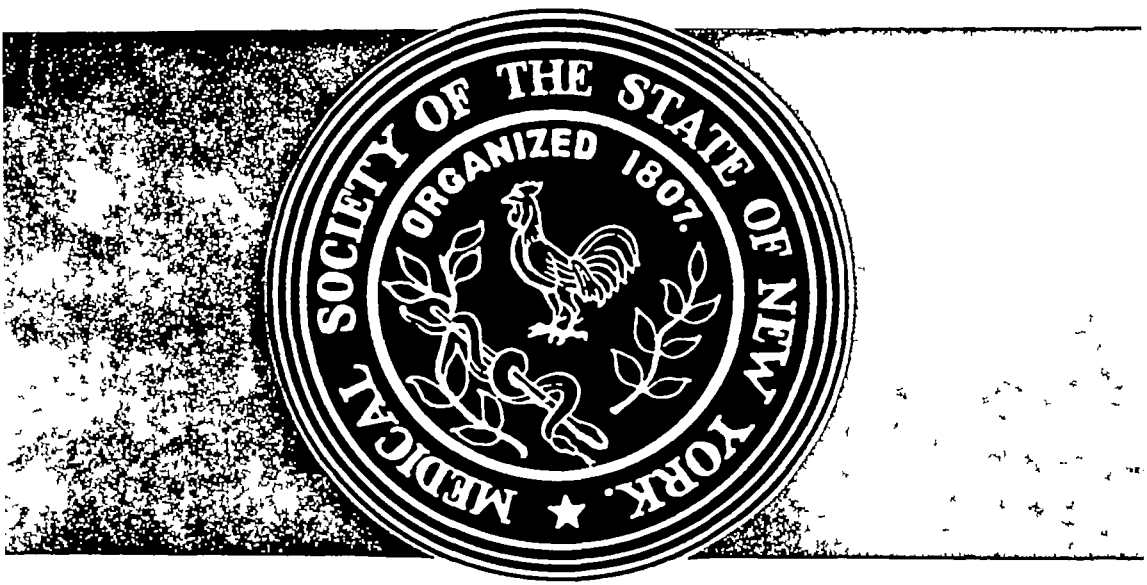


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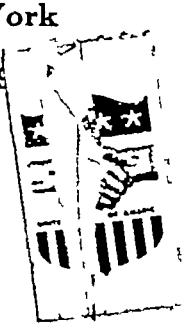
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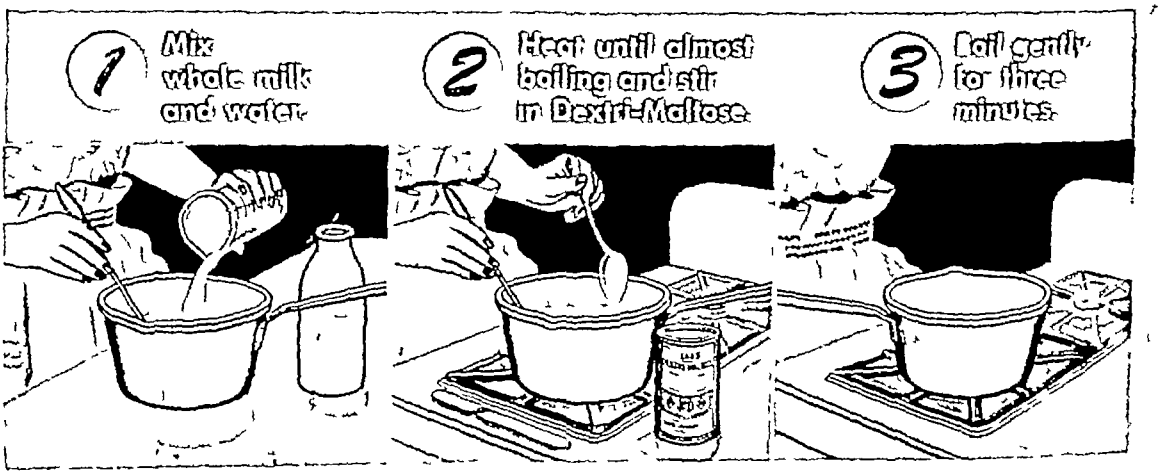
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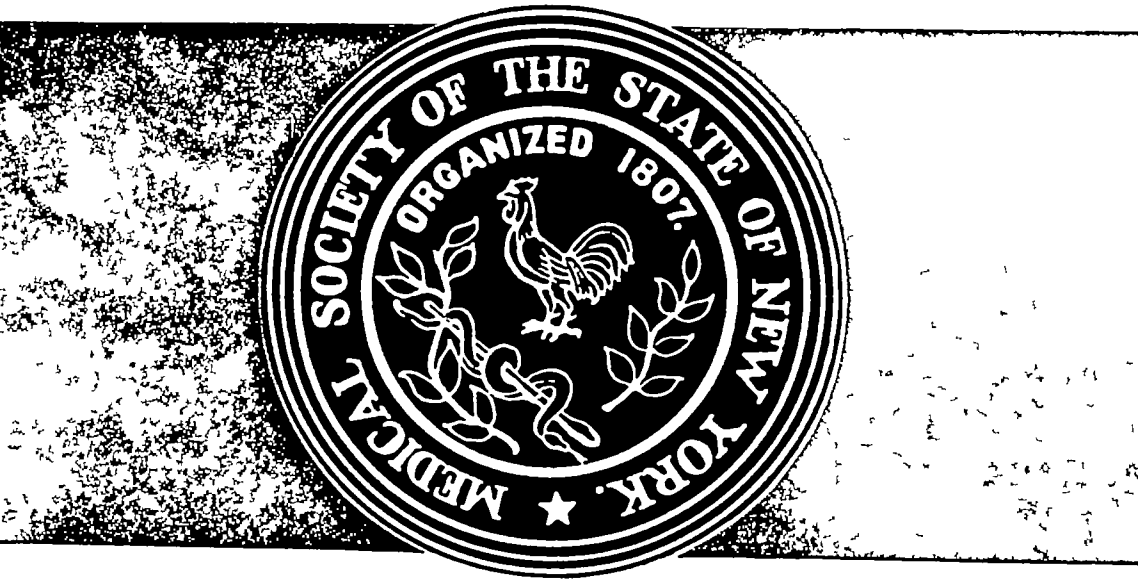


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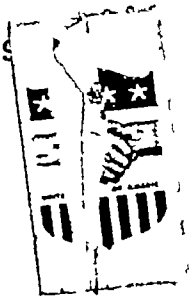
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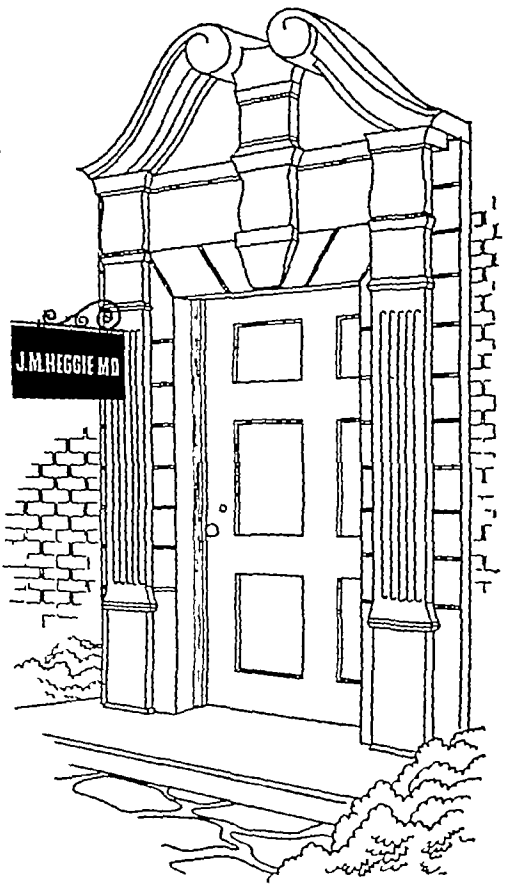
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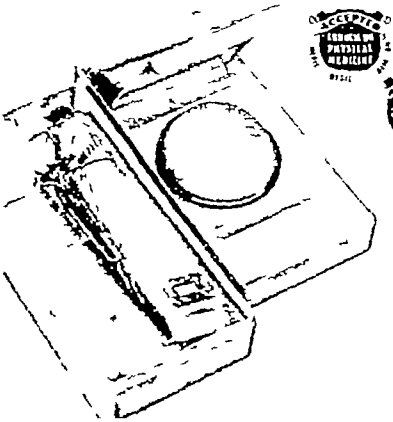
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with medical thought in other states and in the American Medical Association

Uninformed persons, antagonistic to the American Medical Association of which we are a part, of whom fortunately few are in the medical profession, try to cause dissension in our ranks by declaring that what they speak of in a derogatory way as "organized medicine" is run by a group of dictators who attempt to control the thoughts and actions of the medical profession We know that this is not so You, the delegates to our House, represent in a real way the grass roots of our profession You have been chosen by your respective county medical societies as representing the best interests of the profession, and many of you have been instructed by your component societies as to the stand you are to take on important matters coming before the House, and a part of your duty will be to elect officers and councilors who will carry out the policies you decide upon and to report back to you every detail of the work they have done You will also elect, very largely from your own members, delegates to the House of Delegates of the American Medical Association, who will represent this State. Where is there a more democratic form of government?

The number of resolutions annually made at this session and the number of reports of activities of the officers and Council and the various committees have made it necessary to split the membership of the House into twenty-one reference committees The work of these committees is most important It is essential that not only the members of the House and the members of the Council and committees interested in, and having special knowledge of, any subjects coming before these reference committees should attend their deliberations, but that anyone who wishes to express opinions on the question at issue should also be given a hearing The reference committees can then, if they think it wise, make changes in resolutions and make definite recommendations to the House, thus saving much valuable time We should not spend too much time in arguments at our full sessions

In order to aid the Speaker this year in making his appointments to the reference committees, the secretaries of your county medical societies were asked to send in certain information regarding your type of practice, your hospital and teaching affiliations, and the character of the work you had done in your respective societies Although many of these reports unfortunately arrived too late to be of use in this connection, there was sufficient information at hand to enable him in most cases to select members who know about and enjoy the consideration of the type of resolutions which their reference committees will be called upon to consider I am sure you will nearly all be happier in your assignments this year

It will interest you to learn that, of the 154 elected delegates, including a few alternates, about whom we finally obtained the information we asked for, all but five, who are administrators or officers in the government services, are actively engaged in the practice of medicine, all are connected with hospitals Thirty-four, or 22 per cent, are general practitioners, 38, or 25 per cent, are surgeons, 25, or 16 per cent, are internists, 13, or 9 per cent, are obstetricians and gynecologists, and 44, or 28 per cent, are specialists in 13 different qualifications or categories, including nine otolaryngologists, eight urologists, four gastroenterologists, three roentgenologists, three neuropsychiatrists, and two each of anesthesiologists, bronchoscopists, dermatologists pathologists, and ophthalmologists, seven other specialties are represented by one delegate apiece All of you are, or have been, officers and members of important committees of your county societies Eighty-one of you, or 53 per cent, have been presidents Twenty-five, or 16 per cent, hold important teaching positions in medical schools The high percentage of general practitioners refutes the contention that the opinions of our medical societies are entirely controlled by specialists It would be expected that specialists, who have more time to give to organization matters, would be in the majority, but, after all, specialists depend largely upon general practitioners for their livelihood and are certainly interested in their welfare

It is with great regret that your Speaker announces the death during the past year of three of our most valuable members, as follows

Dr Albert A. Gartner, of Buffalo, chairman of the Board of Trustees and long a hard worker for our Society

Dr O W H Mitchell, of Syracuse, a Councilor for many years and chairman of our busiest committee, that on Public Health and Medical Education.

Dr Leo S Schwartz, long a delegate from Kings County, and an active worker for the good of the medical profession

The House is requested to rise for a period of silence in honor of these departed members

The delegates arose and observed a minute in silent memory of these departed colleagues

SPEAKER ANDRESEN The Chair will entertain a motion to have the Secretary send suitable letters of sympathy to the families of these deceased members

DR. EDWIN A. GRIFFIN, *Kings* I so move.

DR. LEO F SCHIFF, *Clinton* I second the motion.

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN It is so ordered. That will be done

SECRETARY ANDERTON Yes

SPEAKER ANDRESEN I would now like to ask the new members of the House to arise, so that we can see who you are.

Over fifty arose

SPEAKER ANDRESEN There are too many of you to ask each of you to give your name at this time, but I hope you will all take an active interest in what is going on and take part in the discussions

For many years it was a custom to introduce the member of the House who had seen the longest service in the House Last year, with the passing of Dr Robert Brittain the previous winter, after fifty-five years of such service, we did not have any information regarding our oldest member in point of service, but after a year's research we have found two members who were first elected delegates in 1913, and who have attended our sessions regularly ever since—a record of continuous service for thirty-six years Both come from a city in which the principal recreation for the young people is to listen to the meetings of the State Legislature and, as would be expected, both are expert parliamentarians and have contributed very greatly to the proper conduct of our meetings It gives me great pleasure to introduce to you our two eminent members, Drs Arthur J Bedell and James F Rooney I am sure we would appreciate hearing a few words from each of these men (*Applause*)

There was no response

SPEAKER ANDRESEN Well, we will ask them to speak a few words to us when they do come in.

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART III

Public Health Activities (A)
Industrial Health
Rural Medical Service
Problems of Alcoholism

Harry Golombe, *Chairman* Sullivan
Harry S Fish Tioga
Ralph Sheldon, Wayne
Walter T Heldmann, Richmond
David Corcoran Suffolk

REFERENCE COMMITTEE ON REPOPT OF COUNCIL—PART IV

Public Health Activities (B)
Cancer
Hard of Hearing and the Deaf
Mental Hygiene
Rheumatic Fever

A. H. Aaron, *Chairman*, Erie
Raymond E Wytrwal Montgomery
William J Tracy, Steuben
Donald Malven Dutchess
Burton M Shinners Section Delegate

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART V

Public Health Activities (C)
Rehabilitation
Nutrition
Geriatrics
Physical Medicine

Harry V Spaulding, *Chairman* Section Delegate
Charles L Pope District Delegate
E Carlton Foster Yates
Edwin L. Harmon Westchester
Madge C L. McGuinness New York

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VI

Economics
Public Medical Care
Medical Service
Joint Committee of the New York State Hospital Association and the Medical Society of the State of New York

Thomas O Gamble *Chairman* Albany
James E McAskill District Delegate
Irwin Felsen, Allegany
Alfred Angrist Queens
Elton R. Dickson Broome

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VII

Medical Care Insurance

Guy S Philbrick *Chairman* Niagara
William T Boland Chemung
John M. Galbraith Nassau
Frederic E Elliott Section Delegate
Donald E McKenna Kings

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART VIII

Liaison with Veterans Administration
War Memorial

Joseph P Henry *Chairman* Monroe
Benjamin M. Bernstein, Kings
Stephen H. Curtis Rensselaer
Joseph L Kiley Saratoga
Halford Hallock Section Delegate

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART IX

Legislation

William B Rawls, *Chairman* New York
A W Martin Marino Section Delegate
Henry W Miller, Putnam
Olin J Mowry Oswego
John L. Sengstack, Suffolk

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART X

Workmen s Compensation

A. Wilbur Duryee, *Chairman* New York
Charles E Goodell, Chautauqua
Walter S Bennett, Washington
Reginald A. Higgons, Westchester
John H. Garlock New York

REFERENCE COMMITTEE ON REPORT OF COUNCIL—PART XI

Publication
Public Relations

Eugene H Coon, *Chairman* Nassau
Frank LaGattuta Bronx
Irving J Sands Kings
Leo E. Reimann Cattaraugus
William A Peart Niagara

REFERENCE COMMITTEE ON REPORT COUNCIL—PART XII

Miscellaneous
Convention
Medical Licensure
Nursing Education
Woman s Auxiliary
Office Administration and Policies
Ethics
Memorials

Joseph A Geis *Chairman*, Essex
Charles H Loughran, Kings
Charles Gullo Livingston
E Dean Babbage Erie
Ezra A Wolff Queens

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS (A)

Andrew A Eggston *Chairman*, Westchester
Irwin E Siris Kings
Edward P Flood, Bronx
George C Vogt, Broome
Orrin Q Flint Delaware

REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS (B)

Norman S Moore, *Chairman* Tompkins
Edwin A Griffin Kings
Goodlatte B Gilmore Bronx
Gordon M Hemmett Monroe
M Renfrew Bradner Orange

SPEAKER ANDRESEN If any chairmen find that members of their committees are not present, and will let us know, we will appoint other members to fill out their quota

The reference committees are going to meet in the Ballroom Foyer, is that right?

SECRETARY ANDERTON Yes

SPEAKER ANDRESEN The stenographers to type the reports will also be located there

Anybody who wants to make a resolution must have nine copies made of it, so that these can be distributed to the five members of the reference committee and also to the proper authorities in the secretarial department

I want to emphasize that those who are interested in any subject that is referred to a reference committee should appear before those reference committees this afternoon for discussion so as to avoid too much time being spent in discussion on the floor of the House that could just as well have taken place in the reference committees today

Section 4

Announcements

The Speaker announced the Annual Banquet would be held at 7 P M Wednesday He also drew attention to the exposition of matters dealing with the National Educational Campaign of the American Medical Association in the press room on the mezzanine floor

Section 5 *(See 17)*

REMARKS OF THE SPEAKER

SPEAKER ANDRESEN Members of the House of Delegates, it is with the greatest of pleasure that I greet you as your Speaker once more This is going to be one of the most important meetings our House of Delegates has held. Questions of great moment not only to the medical profession and the public health but of vital importance to the public at large will come before you, and your action will be watched with interest all over the country We must realize that the decisions of this body have great weight

Section 9 (See 121)

Supplementary Report of the Malpractice Insurance and Defense Board

To the House of Delegates, Gentlemen

This supplementary report covers investigations made by this Board into the matter of malpractice claim prevention It is based principally on a close study of the Alameda County (California) Medical Association's program as well as a similar but older plan in Los Angeles County, together with information obtained through a personal interview with Dr Hurff, chairman of the Malpractice Defense Committee of the New Jersey State Medical Society, and correspondence with the secretary of the Connecticut State Medical Society

Alameda County Medical Association The claim prevention plan of Alameda County is only a part of a bold, progressive venture into a wide field of public relations and medical economics which has as its purpose a cure for most of the ills which afflict the profession in these two general fields All activities are woven together in an integrated program, and for that reason claim prevention is somewhat dependent upon other departments, such as the Bureau of Medical Economics which undertakes to arbitrate economic differences between doctors and patients, the Medical Social Service which investigates home conditions, medical services required, and ability to pay, and the collection service which is self-supporting and which handles collections of members' bills in a manner calculated to prevent counter-claims for malpractice This service frequently discovers and reports dissatisfied patients with grievances which, if not caught in time, might develop into suits

Reduced to its simplest terms, the claim prevention program can be described as based upon the theory that an injured patient is entitled, without cost to him, to whatever corrective procedures are necessary to repair the damage, whether the doctor was right or wrong, and that he is entitled to reasonable reimbursement for loss of time and for pain and suffering if, in the considered judgment of the medical experts, the doctor was at fault If the doctor was not at fault, any payment beyond the cost of the corrective treatments is resisted solidly by the entire county organization This theory can easily be stated, but to put it into practical application requires a great deal of organization, hard work, discipline, and close cooperation between the county organization, the members, their legal service, and their insurance company

Every member is required to report to the county association immediately any occurrence or condition which he observes in his own patients or those who come to him from another doctor, which he thinks may lead to a dissatisfied patient and a malpractice claim. From there on, no set procedure is followed, because no two cases are alike But, generally speaking, the case is reported to the insurance company, whose claim representative enters the case and thereafter takes part in all considerations of it The patient is fully informed as to his condition, an examination is made by the best expert available, corrective procedure is decided upon, and carried out when not refused by the patient The ablest man available in that part of the state is brought in, if necessary, for consultation or for the corrective procedure, all of which is paid for by the insurance company and charged to the loss experience of the group

All the doctors involved are brought together for a frank, friendly, and helpful discussion of the case The doctor s and hospital records are examined, and finally a determination is made as to whether or not the doctor was at fault Throughout this period there is no criticism of anyone. All members are presumed to have a common interest in the case, and those involved put their shoulders to the wheel and push together

When the patient has recovered or has been restored to the best physical condition possible in the circumstances, the question of a monetary settlement is taken up if the doctor has been judged at fault

Compliance with the requirements of this program is undoubtedly voluntary on the part of a large majority of members, as no doubt it would be among conscientious doctors anywhere. But there are enough members who do not willingly subscribe to the program so that it could not have been brought to its present effectiveness in the absence of sanctions or penalties which may be applied to secure discipline and compliance There are various penalties provided, and they are applied with great care to fit each individual case While the weight of medical opinion in a neighborhood is, in itself, a potent corrective factor, the following specific penalties may be used when required

(*a*) *In Hospitals* A member may be denied the right to undertake certain treatments or procedures in his hospital or required to undertake them only in the presence of a member of an appropriate American college or board of specialists In some cases, hospital privileges may be withdrawn entirely

(*b*) *Insurance* A member's insurance may be endorsed so as to exclude protection on account of certain treatments or procedures It may be reduced to a minimum of $5,000 It may be endorsed so as to require the member to bear the first $500 or $1,000 of any loss caused by him, or his insurance may be cancelled outright

(*c*) *County Association* Under procedure laid down by the State Association, a doctor may be expelled from membership in the County Association

The whole purpose of the plan is to get to the injured patient as quickly as possible and to do whatever is necessary to repair the damage as completely as possible and thus prevent potential claims from developing into suits To accomplish this requires the fullest cooperation by all members, who accept the principle that a malpractice suit against one member is the concern of all of them

Many cases were cited to show the number of malpractice suits which have been avoided and the money which has been saved On the showing of these cases alone, there can be no doubt that the plan works It reduces the number of malpractice suits and the cost of disposing of malpractice claims It has eliminated or minimized many abuses which give rise to malpractice actions, and thus it has improved the quality of medical service in the county and increased the respect and confidence of the public

The Alameda County program has been developed under the inspiration and effective leadership of Mr Roland Waterson, the executive secretary, staunchly supported by the leading members of the Association Mr Waterson is careful to point out that it has taken at least four years to develop their program, which is not yet considered complete As each county activity is organized and put in working order, an assistant is put in charge of it, thus freeing Mr Waterson s time to go on and develop other services

The insurance plan of the Association is frankly an experiment which has not yet proved itself It is

Section 6

Reference of Reports and Supplementary Reports

SPEAKER ANDRESEN The Secretary wishes to announce that the reports and supplementary reports of Officers, Council, etc, have been distributed Will you announce that?

SECRETARY ANDERTON The reports and supplementary reports of Officers, Council, Trustees, Legal Counsel, and District Branches that have been published and distributed to the members of the House have been referred to the respective reference committees. I move, sir, that the reading of these reports be omitted

DR. CLARENCE G BANDLER, *New York* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN They have been referred directly to the reference committees, and will be considered tomorrow

The following supplementary reports were mailed to each member of the House of Delegates under date of April 25, 1949

Section 7 (*See 125, 169*)

Supplementary Report of the Secretary

To the House of Delegates, Gentlemen

On March 14, 1949, the Council elected Dr Theodore J Curphey of Hempstead, Long Island, to succeed the late Dr O W H Mitchell as chairman of the Committee on Public Health and Education Dr Curphey has been our Second Vice-President during the past Society year He has already efficiently commenced his important duties

In accordance with plans formulated by the late Dr Mitchell, in cooperation with the New York State Department of Health, President Leo F Simpson, with the approval of the Council, in February appointed the following Regional Chairmen for Internal Medicine to function under the Public Health and Education Committee

Region 1	New York Richmond, Bronx Dr Scott Johnson New York City
Region 2	Kings Queens, Nassau Suffolk Dr Alfred P Ingegno Brooklyn
Region 3	Westchester Rockland Dutchess Putnam Orange Dr Scott Lord Smith, Poughkeepsie
Region 4	Schenectady Fulton Montgomery Schoharie Greene Ulster Dr Frederic W Holcomb Kingston
Region 5	Albany Washington Saratoga, Columbia Warren Rensselaer Dr L. Whittington Gorham, Albany
Region 6	Clinton Essex, Franklin St Lawrence Dr Daisy H. Van Dyke Malone
Region 7	Jefferson, Lewis Herkimer Hamilton Dr John M Rice Watertown
Region 8	Onondaga Oswego Oneida Madison, Cortland Cayuga Dr Charles D Post, Syracuse
Region 9	Broome Tioga Chenango Otsego Delaware Sullivan Dr Clifton H Berlinghof Binghamton
Region 10	Monroe, Orleans Wayne, Livingston Ontario, Yates Seneca Dr Benedict J Duffy Rochester
Region 11	Chemung Schuyler Steuben Tompkins Allegany Dr F S Hassett, Elmira
Region 12	Erie, Niagara Chautauqua, Cattaraugus Genesee Wyoming Dr Roy L Scott Buffalo

These chairmen have already demonstrated their helpfulness by constructive comments on the cardiac teaching program proposed by the New York State Department of Health, Dr Herman E Hilleboe, commissioner, and Dr I Jay Brightman, assistant director, Division of Medical Services

Your Secretary spent Lincoln's Birthday at the American Medical Association in Chicago with Dr Floyd S Winslow, Dr George W Kosmak, Mr. Dwight Anderson, Mr Frederick W Miebach, and Mr Thomas E Walsh, representing the Society at a meeting where the campaign to enlighten the citizens of our country regarding the practice of medicine and its accomplishments was discussed.

As a result of notices sent from your office, 7,747 of our 22,505 members had paid their American Medical Association assessment by April 5, 1949

Respectfully submitted,

W P ANDERTON, M D, *Secretary*

Section 8 (*See 124, 133, 139*)

Supplementary Report of the Board of Trustees

To the House of Delegates, Gentlemen

Frequent conferences and thoughtful consideration of the financial affairs of the Society prompts this supplementary report of the Board of Trustees

We call attention to the fact that the net cost of publishing the *Directory* this year is $88,000 The Board of Trustees recommends that the *Directory* hereafter be published once every four years instead of every two, and at the intervening two-year period that a supplement without advertising be published listing the names of physicians who have come into practice since the *Directory* was last issued To this end, it will be necessary to rescind the decision by the House of Delegates to publish the *Directory* once in two years

Careful financial study by the Trustees and due consideration of the experience of the Publication Committee prompts the Board of Trustees to recommend that the listing of physicians in Connecticut and New Jersey be eliminated from future publications of the *Directory* because of the expense involved

Further thoughtful study of the resources of the Society might tend to diminish or modify hasty financial references to the Board of Trustees The Society carries on large activities It is increasingly difficult for each department to realize what another department desires to spend. The Board of Trustees asks the Council to exercise due caution in requesting the spending of the Society's money on new or uncertain impulses In this period of social evolution in which medicine has come to have increased responsibility, it is highly necessary that finances be kept in a sound condition and proper reserves maintained, and that the principles of the function and obligation of the Board of Trustees as laid down in the Board's report this year be kept in mind

The Trustees freely state that it is an easy thing to spend the other fellow's money When it is decided to spend money, we should pause long enough to take a thoughtful look into the future and consider what is for the best interests of the Society and what may be involved in meeting the problems confronting the profession of medicine in the present distraught, puzzled, confused, and uncertain world

Respectfully submitted,

WILLIAM H ROSS, M D, *Chairman*
JAMES F ROONEY, M D
EDWARD T WENTWORTH M D
EDWARD R CUNNIFFE, M D
DAN MELLEN, M D

larger number of members and a wider diversity of interests However, the same sanctions and penalties are used in both counties and in Los Angeles these are more responsible for the cooperation obtained than in Alameda County The use of the deductible average clause up to $1,000 has proved very effective in Los Angeles Only one member with a deductible clause attached to his insurance has been sued the second time, whereas, before the adoption of this penalty, more than one suit against the same doctor was not uncommon The extent to which the members approve this penalty is illustrated by the fact that some years ago a $250 deductible clause was attached to the insurance of all plastic surgeons Recently, when the Association offered to eliminate this provision from their insurance, the plastic surgeons held a meeting and unanimously voted to have it retained.

Little or no information could be obtained about the details of the insurance plan There is no agreement between the company and the Association as to what percentage of the premiums is allocated to losses and operating expenses and the Association has no knowledge of the actuarial details of the plan or how it is rated All of the operation and much of the claim work is left to the company, which has the right to cancel individual policies for cause, and this right is exercised freely Dr Regan, the executive secretary of the Association, agreed to get from the insurance company a schedule of their rates and other information bearing upon this insurance plan and send it to the Board, but this had not been received up to the time this report was prepared. He did state that about $15,000 a year is paid by the insurance company to the Association to defray the cost of their claim-prevention program.

Although no information was obtained as to the loss ratio up to date, a review of the many cases which were prevented from developing into suits indicates that the loss experience, whatever it may be, would have been much higher had it not been for their effective claim-prevention plan

Dr Regan, in addition to having practiced medicine successfully, is an attorney admitted to practice in California. He has spent some years in the study of the legal liability of the medical profession and how to avoid as well as how to defend malpractice claims It may be assumed, therefore, that most, if not all, of the claim-prevention program of Los Angeles County was developed by him and has grown under his leadership Dr Regan stated that he visits and talks with the staff of every hospital and meets with every organized specialist group in Los Angeles County at least three times a year

It has been said that the medical men of California have been driven by a combination of many factors to band closely together in self-defense However true that may be, contact with the activities of these two county medical associations creates the impression of fresh and vigorous ability to devise new solutions for old problems and, by hard, cohesive efforts, to make them work

Dr Regan and Mr Waterson gave a great deal of their time to a thorough explanation of their situations and programs, and the Board desires to record its appreciation of their helpful cooperation

Connecticut Each of the component county medical associations of the Connecticut State Medical Society has a Committee on Medical Ethics and Department, whose sole purpose is to review and comment upon threatened and actual suits of professional malpractice

All cases of this nature are referred to these county committees and, when necessary, the Committee confers with the legal counsel of the company which carries their group professional liability insurance. It is felt that as a result of this procedure the number of suits for professional malpractice in Connecticut has dropped considerably

No concrete figures have been obtained from this source Although it is known that the premium rate in Connecticut is lower than it is in New York State, it is also well known that the average verdict rendered by Connecticut juries is considerably less than those rendered in New York State This investigation will be continued at some convenient later date

New Jersey The modus operandi in New Jersey is essentially the same as in Connecticut The larger component county societies have special standing committees to investigate malpractice claims Similar service is rendered the smaller counties by special advisors appointed by the State Medical Society The plans of both of these states differ from our own in that the state society does not have all the actuarial data necessary for adequate determination of premium rates and lacks any control in the setting of these rates

Conclusions As a result of its investigations, this Board concludes that the number and cost of malpractice suits against our members can be reduced by a claim-prevention program carefully designed to fit the situation of our counties or groups of counties, provided that it has the strong support of a majority of the members of the various component groups The program should include such activities as education of individual practitioners in how to avoid such claims and investigation into claims when made, with an endeavor to secure the cooperation of all physicians concerned Such a plan would be a radical departure from our established procedure and should be organized with the greatest care.

This Board has received from the Council authority to establish "pilot" committees for this purpose in certain selected test counties It would not be advisable to attempt to inaugurate this plan on a State-wide basis at one fell swoop The organization of these pilot committees should be carried out with the greatest care, and their operation closely observed in cooperation with this Board and the Counsel of the State Society As the pilot committees establish their value, other committees could be organized in other counties or districts as the case might require, with the idea of eventually covering the entire State

The results of such a program should not be expected to produce a decrease of insurance rates for a considerable period, perhaps four or five years, because acts which form the basis for the claims or suits that will arise during those years have already been committed Aside from monetary considerations, however, any program which can reduce the incidence of preventable claims is a service, not only to the members of the Medical Society, but also to the good name of the medical profession as a whole, and to the public whose welfare depends upon close adherence to the high standards of ethical practice by all members of the medical profession.

Respectfully submitted,

LEO F SCHIFF, M D , *Chairman*
CHAS GORDON HEYD, M D
JOHN F KELLEY, M D
CHRISTOPHER WOOD, M D
THOMAS M D'ANGELO, M D

written for a five-year term, at the end of which a new contract will be negotiated. It does not appear to be based upon normal actuarial computations It provides for rate changes from year to year which appear to be more in the nature of rewards or penalties for yearly results rather than adjustments upon actual costs which cannot be determined until five or six years have elapsed Furthermore, it does not appear that any reserves are established for the incurred but not reported cases This is the factor which has made malpractice insurance rating difficult for all companies, so unless such reserves are provided for in some manner not shown in the carrying agreement, the end results at some time in the future may be quite different from those now contemplated by the Association and the insurance company

Under the plan only 50 per cent of the premiums are available for losses and loss expense Annual premium dividends amounting to 20 per cent, which normally would be credited to the individual members, are paid to the Association and used to defray the expense of producing and supervising the business, keeping records, etc This leaves 30 per cent available to the company for their profit and operating expenses which do not include any acquisition cost (commissions) This appears very attractive from the company's standpoint because their published expense ratio, including commissions and agents' salaries, averages only about 16 per cent Nevertheless, the insurance plan, up to date at least, has served the needs of the members admirably, at rates approximately half those charged by Lloyd's of London, which is the only other organization writing malpractice insurance in that part of the state In addition, the enthusiastic assistance and cooperation of Mr Thomas Hadfield, the resident vice-president and manager of the company, has been of very great value to the Association

Last year, it was reported that the plan had paid out only $750 in three years and it was this figure which first attracted the favorable notice of the Medical Society of the State of New York. Figures recently obtained from the Association show that, near the end of the fourth year, $4,300 has been paid out in closed claims and reserves of $23,000 have been established for seven suits which have not yet been tried. Because of the unusual delay in the development of malpractice actions, four years is too short a period upon which to predicate conclusions as to what the ultimate loss experience may be Also, the apparent failure to provide reserves for incurred but not reported cases increases the possibility that the final loss experience may be disappointing However, consideration of the actuarial aspects of the insurance plan should not be permitted to detract from the excellent results achieved by the claim-prevention program. Without it, the loss experience up to date would undoubtedly have been very much higher and the members would probably be paying twice as much for their insurance.

Los Angeles County Medical Association The claim prevention program in Los Angeles County was inquired into by the Board because it is older than that of Alameda County and is credited with having inspired much of the plan adopted by the latter Association It is also of interest to the members of the Medical Society of the State of New York because the 4,600 members of Los Angeles County serve a population comparable in size with the largest counties in metropolitan New York.

The Los Angeles County Association has not developed a public relations or medical economics pro-

nized and efficiently carried out The basic principles are the same as those described above Immediate action and unlimited care and funds for corrective measures to rehabilitate injured patients are first considerations in every case In one case cited, a neurosurgeon was flown to Los Angeles from Washington, D C , to repair the nerves and tendons of a boy's hand, which had been severed in two places Complete function and use of the hand was restored The cost of the repairs was probably high, but very small compared with the cost of damages which might have been assessed against the responsible doctor by a jury if the repair had not been made

In cases which cannot be disposed of in this manner, it is customary to hold a medical review or trial in the general locality of the defendant's practice. A jury of six or eight doctors in the area is selected to hear the case and the medical defense committee sits as judges Every aspect of both sides of the case is fully discussed in the presence of the plaintiff and his attorney if they care to attend At the close of the case, the jury determines whether or not the defendant doctor was guilty of malpractice, error, or mistake, and whether the case should be settled or resisted in court The finding of the jury is accepted by the Association and the insurance company, and the case is then handled in accordance with the findings

The Association attaches great importance to this procedure because of the educational and sobering effect it has upon the defendant and members of the jury, some of whom have occasionally been put on the jury because they, themselves, are believed to be potential offenders

Applicants for membership in the Los Angeles County Association are required, before admittance, to attend three indoctrination or orientation lectures, one of which is on the subject of malpractice liability

Every member who applies for insurance is required to have a thorough inspection of his office, equipment, routine records, nurses, technicians, etc , before his application is approved The inspection is made by experts trained by the Association, which fixes the minimum standards of acceptability Insurance is not granted to a member if the Association fails to approve his application Applicants are required to pay a $5 00 fee for the inspection, whether their applications are approved or not

It is reported that approximately 240 malpractice claims arise each year against the 3,500 members insured in the Association's insurance plan Of these, 70 per cent, or about 170, result in suits filed Of the suits filed, 30 per cent, or approximately 20 a year, result in payments of some kind to the plaintiffs Some judgments have been obtained, but all of them have been appealed and reversed or compromised before the appeals were heard. This is the basis for the statement that there have been no judgments in eight years against members insured in the Association plan Of all the cases filed in Los Angeles County, 54 per cent are against doctors whose professional standing is rated in the community as better than average Eight cases have been against teachers in local medical schools

It was further reported that the number and cost of malpractice actions against members insured in the Association's plan have slowly decreased since 1946, but those against others have remained about level or are increasing

Apparently the discipline and solidarity of purpose among the members of Los Angeles County is not as

cases where authorization is made to a veteran to receive care under this home town fee basis system, that the veteran have full opportunity for his free choice of physician, including specialists There have been some efforts in various local areas on the part of the Veterans Administration physicians to interfere with this free choice prerogative A few months ago in the New York City area it was found that the Veterans Administration clinic facilities were not able to accommodate patients within a two-week period This was then called a hardship case and the recommended medical care was to be provided by a private physician The directive contained the following sentence "Under this hardship category the veterans will not have the privilege of selecting the physician who is to render the treatment required." We made immediate and vigorous objection to this policy and I am happy to say that the director of the Out-Patient Service, Washington, D C , and the medical director of the New York State Branch promptly changed this directive, which after all was mainly the idea of a local branch subordinate

It is my belief that the Veterans Administration with its experience in this Plan subscribes to the superiority of the free choice principle It should be pointed out that authorization for medical care is possible only to service-connected cases The authorization is granted only when Veterans Administration facilities are not feasibly at hand, resulting in the "hardship" status for the veteran The building up of clinical facilities by the addition of part-time personnel constantly reduces the number of fee basis patients It is in my opinion most unfortunate when such physicians, who should be treating these patients privately under a fee basis plan, are treating patients in overcrowded clinics It is curious that some of these physicians, who are thus working at substandard rates, complain that their home town fee schedule is too low or that they are losing their private patients to Veterans Administration outpatient departments The contract with the Veterans Administration provides a fee schedule which is an independent one for New York State The format is that quite universally used in all of the states, but the fees are a matter of special agreement between the Veterans Medical Service Plan of New York, Inc , and the Veterans Administration

At the first of the year we encountered a great difficulty in that the general accounting office (Bureau of the Budget, Washington, D C) challenged the validity of Part II of the agreement between the Veterans Administration and the Veterans Medical Service Plan of New York, Inc Inasmuch as the general accounting office holds a supervisory relationship over the financial activities of other Federal agencies, the branch medical director was forced to suspend all other authorizations and payments based on the fee schedule set forth in Part II and to substitute the fee scale set forth in the so-called Veterans Administration National Fee Schedule To give some idea as to the subjugation of medical care in these instances I quote from the letter of the Branch Medical Director "Neither you, nor I, nor anyone in the Veterans Administration in Washington has any option in this matter We must follow the general accounting office's mandate "

Part II was challenged because "it was a tentative agreement and not a firm agreement supported by the firm acceptance of all contracting parties" However, we had been operating under this Part II system from September, 1946, to January, 1949 I am pleased to report that after a few prompt meetings with the Veterans Administration officials we were able to agree upon a new fee schedule which was officially accepted as of April 1, 1949 This schedule was adopted by the Plan after it was thoroughly reviewed by the Liaison Committee. All of the fee schedule material had been studied and approved by the Liaison Committee, representing the Medical Society of the State of New York, before it was adopted by the Plan We have also endeavored to keep our fee schedule in all respects equal to that of our Workmen's Compensation Fee Schedule I believe that our fee schedule is sufficiently high to merit the good professional services which we demand and that it is also very considerate of the cost to the Federal government These fee schedules are subject to revision and agreement from time to time and we are glad to take up any item which the Veterans Administration or the participating physician may complain of as unjust I wish to emphasize that this is a joint fee schedule and it represents the mutual satisfaction of the Veterans Medical Service Plan of New York, Inc , and the Veterans Administration The new fee schedule is known as Fee Catalog No 4.

The House of Delegates in 1948 adopted a resolution asking that representatives from the Medical Society of the State of New York meet with representatives of various veteran groups This meeting was held as a dinner meeting at the Hotel Commodore on February 9, 1949 It was attended by the President of the Medical Society, the Board of Directors of Veterans Medical Service Plan of New York, Inc , and the Liaison Committee of the Medical Society The veteran groups were represented by the American Legion, the Disabled American Veterans, the American Red Cross, and the Catholic War Veterans Other veterans' organizations were invited There was a thorough discussion of the medical, surgical and hospital services for veterans, especially those veterans with service-connected disabilities who were eligible for care under the Plan A much better understanding of our purposes resulted from this meeting Several veterans expressed the view that the medical profession might take a greater interest in their claim and pension examinations This especially referred to reports made by physicians following these examinations It was pointed out that all of this work is done by physicians who are employes or direct designates of the Veterans Administration and that this portion of the service was not included in the operation of our Plan. There was general expression that the veterans should have free choice of physician, but many of the veterans thought that there should be no curtailment of clinic facilities or veterans hospitals It was decided to hold similar meetings from time to time It appeared that the veterans in attendance at the meeting were impressed with the fact that the Medical Society of the State of New York is interested in securing the best medical care for veteran patients

Statistics offer some difficulty in determination, but it may be of interest to report some figures During the fiscal year which ended June 30, 1948, 98,609 veterans were treated by private physicians under the Veterans Medical Service Plan of New York Inc , at a cost of $2,582,761 to the Veterans Administration About 59 per cent of all VA outpatient medical care in the State was performed by non-VA physicians Under a similar arrangement with dentists 95 per cent of all dental care rendered during the year was performed by non-VA dentists, 94,238 treatments and 64,279 examinations were authorized to fee basis dentists and were completed at a cost of $7,688,016 to the Veterans Administra-

Section 10 (See 115)

Supplementary Report of the Council—Part VII Medical Care Insurance

To the House of Delegates, Gentlemen

The Council Committee on Economics submits the following Supplementary Report

At a meeting of the Subcommittee on Medical Expense Insurance, held at the Society offices February 25, jointly with the presidents of the six State Society approved medical care insurance plans, or their representatives, the feasibility of establishing a State-wide contract with uniform benefits, to be offered by present plans but not to supersede present contracts, was discussed

For the information of the Committee, Mr Farrell read a statement outlining differences in present contract provisions in the plans, and also called attention to selected items on a comparative fee schedule to illustrate the lack of conformity in fees throughout the State

All aspects of this program were discussed at length and resulted in the following recommendations

That a State-wide uniform contract be established, that it offer surgical, in-hospital medical benefits, including fractures and maternity, that surgical care be rendered in the hospital, home, or physician's office, and that medical care be confined to in-hospital cases,

That the contract embrace service and indemnity features, the point of distinction being income limits, that the tentative income ceiling be $5,000 for a family of two or more

After further discussion, consideration was given to ceilings of $2,500 for an individual, and $4,000 to $4,500 for a family of two or more The voting on this was not unanimous, but all ceilings considered were tentatively recommended and not regarded as final.

A provision in present contracts governing the age limit of sixty-five or over, in relation to enrolment and continuous coverage after age sixty-five, was referred back to each plan with a recommendation that serious consideration be given to possible increases in claims from this group, and that studies be made of these groups before plans are committed to a policy, that once a subscriber he may remain so regardless of age

The distinction exercised by some plans in the payment of fees to participating and nonparticipating doctors in plan operating areas was discussed, and it was recommended that this matter be left to the judgment of local plans and that the Medical Society of the State of New York implement its component societies to be vigilant in urging nonparticipating physicians to affiliate with their local plan

It was recommended that the services of an actuary be obtained for this program and that plans be approached to share pro rata the expense entailed

Mr Farrell was authorized to contact each plan, to obtain information necessary to amplify a policy which would be acceptable State-wide, and to solicit the aid of committee members in this project

The actions of this Committee, as recommended, were presented to the Council at its March 10, 1949, meeting and were accepted in principle It was voted that the Council favors a contract according to the 1948 House of Delegates, and that the Committee proceed with the formulation of such a contract

Respectfully submitted,

CARLTON E. WERTZ, M D , *Chairman*
Council Committee on Economics

Section 11 (A) (See 82)

Annual Report of the Board of Directors of Veterans Medical Service Plan of New York, Inc., and Report of the Council Committee on Liaison with Veterans Administration—Part VIII

To the House of Delegates, Gentlemen

This report includes in its contents reference to the work of the Liaison Committee of the Medical Society of the State of New York with the Veterans Administration Since the work of both groups relates to veterans' care it may serve for better understanding and brevity to present this as a combined report The Veterans Medical Service Plan of New York, Inc , is an independent group set up so that contracts for veterans' medical and surgical care could be made by the Veterans Administration with the practicing medical profession of the State of New York.

The first contract was signed August 7, 1946, and began operating September 15, 1946 During this period there have been several extensions of the contract, and in the past year this has been done for three-month periods with little substantial change in the contract

Our present contract expires June 30, 1949, which is the end of the Federal fiscal year and the regular time for expiration of contracts

The contract includes, as it has from the beginning, employment of physician Coordinators by the Veterans Medical Service Plan of New York, Inc. The Veterans Administration furnishes a sum to the Veterans Medical Service Plan of New York, Inc., which is to enable the Plan to pay its Coordinators. The Coordinators are, however, wholly the employes of the Veterans Medical Service Plan of New York, Inc These Coordinators are the following physicians

George Hunter O'Kane, M D	New York City
Paul T Crosby, M D	Syracuse
Frederick H Petters, M D	Buffalo
Thomas G Fitzgerald, M D	Albany
A. W Rupert, M D	Albany

Briefly, the duties of Coordinators include integration of Veterans Administration activities with respect to physicians participating in the Veterans Medical Service Plan of New York, Inc , review, approval, and adjudication of all claims for payment for services rendered under the Plan, individual review and approval of the content and nature of the professional report submitted by the physician, and procedures concerning complaints registered against participating physicians, particularly with regard to question of ethics involved Although the Veterans Administration could make more use of the consulting capacities of our Coordinators, the system of review is in most respects ideal As of the quarter beginning April 1, 1949, there are no new complaints against doctors participating under the Plan which require investigation Minor difficulties or disagreements with physicians have been handled by telephone or letter with satisfactory final disposition

The Coordinators are physicians of high standing and are universally respected in all areas by veteran patients, the practicing physicians and their county societies, and by the Veterans Administration Later figures in this report will give some idea of the huge amount of professional work that has been transacted since the beginning of the Plan in September, 1946 Every complaint over any act has been investigated and properly taken care of, and the Medical Society of the State of New York may well be proud of the conduct of its physicians in this large and difficult venture We have insisted that in all

hautauqua	Dr DeForest Buckmaster		
	Guardianship—Wife	Joan	23
	Mrs DeForest Buckmaster	Mary	21
	Jamestown		
hemung	Dr Charles L. Stevens		
	Guardianship—Wife	Charles	19
	Mrs Charles L Stevens	Fay	17
	636 W Gray Street		
	Elmira		
linton	Dr Victor F Krakes		
	Guardianship—Wife	Joan	4
	Mrs Loretta C Krakes		
	70 Greenway South		
	Forest Hills		
Dutchess	Dr Bernard Weiss		
	Guardianship—Wife	Berne	6
	Mrs Miriam Weiss		
	1041 East 27th Street		
	Brooklyn		
Genesee	Dr Robert E O Milne		
	Guardianship—Wife	Robert	18
	Mrs Evelyn R. Milne	Alexander	12
	Le Roy		
Kings	Dr Patrick S Haran		
	Guardianship—Wife	Lillian	18
	Mrs Lillian Haran		
	846 Prospect Place		
	Brooklyn		
	Dr Louis Kasman		
	Guardianship—Wife	Karen	12
	Mrs Louis Kasman	Richard	11
	c/o Berlin		
	510 Riverside Drive		
	Long Beach		
	Dr Louis Michaels		
	Guardianship—Wife	David	5
	Mrs Louis Michaels		
	1475 Carroll Street		
	Brooklyn		
	Dr Samuel G Rosenfeld		
	Guardianship—Wife (Remarried)	Jeffrey	7
	Mrs. Lewis R. Lawrence		
	830 Prospect Place		
	Brooklyn		
Nassau	Dr Joseph A. Randazzo		
	Guardianship—Wife	Nonta	9
	Mrs Alice G Randazzo	Beatrice	7
	100-44 100th Street		
	Hollis		
New York	Dr Richard Benfield		
	Guardianship—Wife	John	17
	Mrs Lola Benfield		
	103 West 86th Street		
	New York City		
	Dr Clyde H. Brown		
	Guardianship—Wife	Franklin	13
	Mrs Clyde H Brown		
	33 Cranston Avenue		
	Newport Rhode Island		
	Dr Albert W Hawkes		
	Guardianship—Wife (Remarried)	Frances Stephen	10 8
	Mrs. Alistair Cooke		
	114 East 71st Street		
	New York City		
	Dr Bruno Solby		
	Guardianship—Wife	Michael	11
	Mrs Trude D Solby		
	713 Madison Avenue		
	New York City		
Queens	Dr Alfred L. Lyons		
	Guardianship—Wife	Arthur	17
	Mrs Evelyn J Lyons	Edith	15
	164-03 Crocheron Avenue		
	Flushing		
Rockland	Dr Henry A. Silberstein		
	Guardianship—Wife (Remarried)	Judith Peter	15 11
	Mrs Johann Greenfield		
	Lake Road		
	Suffern		
Saratoga	Dr Richard D Bullard		
	Guardianship—Wife	Thomas	6
	Mrs Elizabeth M Bullard	Peter	6
	230 Nelson Avenue		
	Saratoga Springs		
Wayne	Dr Edward T Tellman		
	Guardianship—Wife	Joan	10
	Mrs Mary E Tellman	Sally	8
	147 Cuyler Street		
	Palmyra		

TABLE 2—DATA NOT RECEIVED

County	Family	Children	Age
Erie	Dr Gene W Hair		
	Guardianship—Wife (Remarried)	Son	3
	Mrs. Elise Maude Thompson		
	911 So 8th Avenue		
	Yakima Washington		
Franklin	Dr Bruce Taylor Smith		
	Guardianship—Wife	Robert	18
	Mrs. Bruce T Smith	Bruce	12
	Fort Covington	Douglas	5
Kings	Dr Raymond B Miles		
	Guardianship—Wife	Kay Vivian	13
	Mrs Catharyn C Miles	Raymond	11
	Box 311	William	10
	North Bennington		
	Vermont		
	Dr Harold M Sachs		
	Guardianship—Wife	Lawrence	25
	Mrs. Ruth Sachs	Marcia	18
	1648 Madison Street		
	Brooklyn		
	Dr William W Samuelsen		
	Guardianship—Wife	Carol Jeanne	7
	Mrs Esther Samuelsen		
	607 75th Street		
	Brooklyn		
	Dr Thomas R. Turino		
	Guardianship—Wife	Judith	11
	Mrs Jane S Turino	Karen	6
	95 Cambridge Place		
	Brooklyn		
Monroe	Dr Joseph D Picciotti		
	Guardianship—Wife	Gemma	18
	Mrs. Catherine M Picciotti	Catherine	16
		Josepha	14
	249 Culver Road	Joseph	12
	Rochester 7		
Nassau	Dr Joseph E Funk		
	Guardianship—Wife (Remarried)	Joseph Thomas	9 6
	Mrs James W Foote	Paul	5
	1 Grant Court		
	Metuchen New Jersey		
	Dr Herbert F Orange		
	Guardianship—Wife	Patricia	9
	Mrs Herbert F Orange	Richard	7
	13 Selwyn Road		
	Great Neck		
New York	Dr Morris Horn		
	Guardianship—Wife	Sandra	12
	Mrs Ruth C Horn		
	20 Crown Street		
	Bridgeport Connecticut		
Onondaga	Dr Paul H Lowry		
	Guardianship—Wife (Remarried)	Susan Jane (Married)	
	Mrs Ralph Darran		
	Hotel Van Curler		
	Schenectady		
Schenectady	Dr Robert C Maxon		
	Guardianship—Wife	Robert	10
	Mrs Robert C Maxon	Laurie	5
	1122 Nott Street		
	Schenectady		
Ulster	Dr Joseph C Sandler		
	Guardianship—Wife	Jane	11
	Mrs. Joseph C Sandler		
	49 Center Street	Peter	8
	Ellenville	Richard	5
Westchester	Dr Nathan Bluestone		
	Guardianship	Martin	10
	Francis B Roth M D	Paul	3
	71 East 90th Street		
	New York City		

It may be noted that since the completion of the first part of this report the number of eligible children has increased from 62 to 65 and the total recorded number of former members of the Society who were killed in action, died of wounds or disease incurred in the service during World War II has increased from 32 to 34.

The total amount of the War Memorial Assessment as received to date of this report is $182,287 50 instead of the $139,096 as given in the first part of the report leaving an estimated balance of $59,-

tion In the comparison of figures in medical and dental care it should not escape notice that 95 per cent of the dental care was performed by private dentists

During the fiscal year about $50,000,000 was spent in New York State directly or indirectly in providing medical care for veterans The total expenditure by the Veterans Administration in New York State is reported to be about $600,000,000 for the fiscal year, exclusive of the cost of new hospital construction, which figures are not included in the Branch budget In a summary of its activities, (U S) as of August 31, 1948, the Veterans Administration reported a total of 105,048 patients in hospitals, 92,983 of these patients were in Veterans Hospitals and, of these, 61,091 were veterans with non-service-connected disabilities Of the 12,065 not in VA Hospitals, 7,488 were veterans with nonservice-connected disabilities In the metropolitan area of greater New York and adjacent counties, the number of authorizations for fee basis work for the year 1948 (January, 1948, through December, 1948) was 6,868 with fees of $217,280 This illustrates the marked reduction in free choice in the more populated areas and further illustrates that the veteran does not have the same opportunity for private care in various areas of the State

In the entire United States it is reported that private physicians treated 761,165 veterans during the fiscal year of 1948 under the Veterans Administration "home town medical care program" The physicians were paid $11,437,739 for the 2,735,429 treatments given In addition, Veterans Administration staff physicians at outpatient clinics handled 865,004 cases involving 1,680,183 treatments and visits

The reduction in private care under the Plan in New York State has not been so rapid in the latter half of the year However, I believe there is at least a 25 per cent reduction in treatment over that of the previous year in fee basis treatment It is my belief that this reduction will be more marked in the present fiscal year because we have recently had large new facilities put into operation in the larger cities of the State Although there are many physicians employed by the Veterans Administration, most of these have been busied with administrative duties, authorizations, claim and pension examinations This work is of necessity performed by the Veterans Administration employes However, as indicated earlier in this report, I see no good reason why most of the outpatient treatment should not be given by the private physician It would result in greater appreciation by the veteran and in a lower cost to the government, especially when overhead is considered

The number of veterans awaiting hospitalization in VA hospitals has been steadily increasing This is especially true in tuberculosis and neuropsychiatry, and for these cases the Veterans Administration may not be able to provide beds in their own hospitals for some time to come The increase in non-service cases awaiting hospitalization continues Although new Veterans Hospitals are under construction, the lack of personnel has made it difficult to take care of all the beds at present in operation It seems that soon the VA will have to call upon the local physician and the local private hospital for more help It would be well to change the policy so that more veterans would be taken care of in local community hospitals The project of medical and hospital care to the veteran is still a most portentious one

The chairman of the Liaison Committee, who is also the president of Veterans Medical Service Plan of New York, Inc , has made frequent reports to the Council of the Medical Society of the State of New York We have endeavored to follow faithfully the advice and wishes of the Council in the knowledge that we are thus carrying out the wishes of the Medical Society membership

The members of the Liaison Committee are

Dr Herbert H. Bauckus, *Chairman*
Dr Dan Mellen
Dr Laurance D Redway
Dr Edward R Cunniffe
Mr George P Farrell
Dr J Stanley Kenney
Dr Joseph A. Lane
Dr W P Anderton

The members of the Board of Directors are

Dr Herbert H Bauckus, *President*
Dr Thomas A. McGoldrick
Dr Arthur H Stein
Dr James R Reuling, Jr
Dr Louis H Bauer
Dr William H Ross
Dr James F Rooney
Dr Edward R Cunniffe
Dr W P Anderton

Respectfully submitted,

HERBERT H BAUCKUS, M D , *President* Veterans Medical Service Plan of New York, Inc , and *Chairman* of the Committee on Liaison with Veterans Administration

Section 11 (B) (See 83)

Supplementary Report of the Committee on War Memorial—Part VIII

To the House of Delegates, Gentlemen

Since the submission of the first section of the report as printed and in conformity with the last paragraph therein it is desired to submit to the Council and the House of Delegates the following additional information

Of the total number of mothers or guardians of children who are potential beneficiaries of the War Memorial Fund, as established by the House of Delegates, who have the necessary forms completed as of April 12, 1949, to establish the right of the children of the deceased former members of this Society who were officers in the armed forces of the United States during World War II, of a total of 34 submitted 18 have furnished complete proofs, two have been returned but were incomplete and are awaiting completion, and 14 have not been returned The total number of children who are potential beneficiaries is 65 of whom one is already married and therefore ineligible for benefits under the provisions of the rules of the grant Of this total number there are 36 male and 29 female children varying in present ages from 3 to 25 years as shown in Tables 1 and 2

TABLE 1 —DATA RECEIVED

County	Family	Children	Age
Bronx	Dr Samuel Wein *Guardianship—Wife* Mrs Frieda Wein 125 West 168th Street New York City 52	Mortimer (working) Robert	22 12
Cattaraugus	Dr Clifford A Schmiesing *Guardianship—Wife* Mrs Grace E Schmiesing 1117 So Wilton Place Los Angeles 6, California	Clifford Sandra James	17 12 10

Chautauqua	Dr DeForest Buckmaster		
	Guardianship—Wife	Joan	23
	Mrs DeForest Buckmaster	Mary	21
	Jamestown		
Chemung	Dr Charles L. Stevens		
	Guardianship—Wife	Charles	19
	Mrs Charles L. Stevens	Fay	17
	636 W Gray Street		
	Elmira		
Clinton	Dr Victor F Krakes		
	Guardianship—Wife	Joan	4
	Mrs Loretta C Krakes		
	70 Greenway South		
	Forest Hills		
Dutchess	Dr Bernard Weiss		
	Guardianship—Wife	Berne	6
	Mrs Miriam Weiss		
	1041 East 27th Street		
	Brooklyn		
Genesee	Dr Robert E O Milne		
	Guardianship—Wife	Robert	18
	Mrs Evelyn R. Milne	Alexander	12
	Le Roy		
Kings	Dr Patrick S. Haran		
	Guardianship—Wife	Lillian	18
	Mrs Lillian Haran		
	846 Prospect Place		
	Brooklyn		
	Dr Louis Kasman		
	Guardianship—Wife	Karen	12
	Mrs Louis Kasman	Richard	11
	c/o Berlin		
	510 Riverside Drive		
	Long Beach		
	Dr Louis Michaels		
	Guardianship—Wife	David	5
	Mrs Louis Michaels		
	1475 Carroll Street		
	Brooklyn		
	Dr Samuel G Rosenfeld		
	Guardianship—Wife (Remarried)	Jeffrey	7
	Mrs. Lewis R. Lawrence		
	830 Prospect Place		
	Brooklyn		
Nassau	Dr Joseph A Randazzo		
	Guardianship—Wife	Norita	9
	Mrs Alice G Randazzo	Beatrice	7
	100-44 100th Street		
	Hollis		
New York	Dr Richard Benfield		
	Guardianship—Wife	John	17
	Mrs Lola Benfield		
	103 West 86th Street		
	New York City		
	Dr Clyde H Brown		
	Guardianship—Wife	Franklin	13
	Mrs Clyde H. Brown		
	33 Cranston Avenue		
	Newport Rhode Island		
	Dr Albert W Hawkes		
	Guardianship—Wife (Remarried)	Frances Stephen	10 8
	Mrs Alistair Cooke		
	114 East 71st Street		
	New York City		
	Dr Bruno Solby		
	Guardianship—Wife	Michael	11
	Mrs Trude D Solby		
	713 Madison Avenue		
	New York City		
Queens	Dr Alfred L. Lyons		
	Guardianship—Wife	Arthur	17
	Mrs Evelyn J Lyons	Edith	15
	164-03 Crocheron Avenue		
	Flushing		
Rockland	Dr Henry A. Silberstein		
	Guardianship—Wife (Remarried)	Judith Peter	15 11
	Mrs. Johann Greenfield		
	Lake Road		
	Suffern		
Saratoga	Dr Richard D Bullard		
	Guardianship—Wife	Thomas	6
	Mrs. Elizabeth M Bullard	Peter	6
	230 Nelson Avenue		
	Saratoga Springs		
Wayne	Dr Edward T Tellman		
	Guardianship—Wife	Joan	10
	Mrs Mary E. Tellman	Sally	8
	147 Cuyler Street		
	Palmyra		

TABLE 2—DATA NOT RECEIVED

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	Guardianship—Wife	Robert	18
	Mrs. Bruce T Smith	Bruce	12
	Fort Covington	Douglas	5
Kings	Dr Raymond B Miles		
	Guardianship—Wife	Kay Vivian	13
	Mrs Catharyn C Miles	Raymond	11
	Box 311	William	10
	North Bennington		
	Vermont		
	Dr Harold M Sachs		
	Guardianship—Wife	Lawrence	25
	Mrs. Ruth Sachs	Marcia	18
	1648 Madison Street		
	Brooklyn		
	Dr William W Samuelsen		
	Guardianship—Wife	Carol Jeanne	7
	Mrs Esther Samuelsen		
	607 75th Street		
	Brooklyn		
	Dr Thomas R Turino		
	Guardianship—Wife	Judith	11
	Mrs Jane S Turino	Karen	6
	95 Cambridge Place		
	Brooklyn		
Monroe	Dr Joseph D Picciotti		
	Guardianship—Wife	Gemma	18
	Mrs. Catherine M Picciotti	Catherine Josepha	16 14
	249 Culver Road	Joseph	12
	Rochester 7		
Nassau	Dr Joseph E. Funk		
	Guardianship—Wife (Remarried)	Joseph Thomas	9 6
	Mrs. James W Foote	Paul	5
	1 Grant Court		
	Metuchen New Jersey		
	Dr Herbert F Orange		
	Guardianship—Wife	Patricia	9
	Mrs Herbert F Orange	Richard	7
	13 Selwyn Road		
	Great Neck		
New York	Dr Morris Horn		
	Guardianship—Wife	Sandra	12
	Mrs Ruth C Horn		
	20 Crown Street		
	Bridgeport, Connecticut		
Onondaga	Dr Paul H. Lowry		
	Guardianship—Wife (Remarried)	Susan Jane (Married)	
	Mrs Ralph Darran		
	Hotel Van Curler		
	Schenectady		
Schenectady	Dr Robert C Maxon		
	Guardianship—Wife	Robert	10
	Mrs Robert C Maxon	Laurie	5
	1122 Nott Street		
	Schenectady		
Ulster	Dr Joseph C Sandler		
	Guardianship— Wife	Jane	11
	Mrs. Joseph C Sandler		
	49 Center Street	Peter	8
	Ellenville	Richard	5
Westchester	Dr Nathan Bluestone		
	Guardianship	Martin	10
	Francis B Roth M D	Paul	3
	71 East 90th Street		
	New York City		

It may be noted that since the completion of the first part of this report the number of eligible children has increased from 62 to 65 and the total recorded number of former members of the Society who were killed in action, died of wounds or disease incurred in the service during World War II has increased from 32 to 34.

The total amount of the War Memorial Assessment as received to date of this report is $182 287 50 instead of the $139,096 as given in the first part of the report leaving an estimated balance of $59,-

712 50 as yet uncollected The estimated expenditures if all of the beneficiaries elect to accept their full quota of the fund will be for each year beginning with 1949 as follows

1949 eight children, $4,800, 1950, 11 children, $6,600, 1951 12 children, $7,200, 1952, 13 children, $7,800 1953, 14 children, $8,400, 1954, 15 children $9,000, 1955, 20 children, $12,000, 1956, 26 children, $15,600, 1957, 33 children, $19,800, 1958, 33 children, $19,800, 1959, 32 children, $19,200 1960, 35 children, $21,000, 1961, 29 children, $23,400, 1962, 43 children, $25,800, 1963, 41 children, $24,600, 1964, 39 children, $23,400, 1965, 33 children, $19,800, 1966, 26 children, $15 600, 1967, 26 children, $15,600, 1968, 19 children, $11,400, 1969, 15 children, $9,000, 1970, 9 children, $5,400, 1971, 4 children, $2,400, 1972, 2 children, $1,200

It will be seen that the total expenditure of 2,800 exceeds the original estimated expenditure of $242,000 as calculated and given in the report of this committee to the Council and the House in 1948, by approximately $86,800 There have been a number of remissions of the assessment for this fund made by the Council to members of the Society because of illness, service in the armed forces, or other causes of financial hardship deemed by the Council to be valid, which will probably still further diminish the total amount collected for the fund.

It is also estimated by your committee that there will be approximately 10 per cent of the total number of children who will not elect to pursue a graduate or postgraduate professional education which will diminish the demand upon the fund by approximately $33,600, and a further 10 per cent who will not pursue a postgraduate professional education which will still further lessen the sum by approximately $16,800, reducing the total probable expenditures from the fund to $278 400

The monies received from the special assessment have been and, as they continue to accrue, will be invested only in securities legal for investment by savings banks and fiduciary trusts under the laws of the State of New York by direction of the Board of Trustees and will provide a diminishing interest return on the investment averaging approximately $4,000 a year for five years, $1,000 a year for five more years, making a total of $25,000, $500 a year for five later years, making a total of $2,500, and then rapidly reducing till the termination but averaging about $300 a year to 1972, thus making a grand total of $29,900 which will be added as it accrues to the fund and thus providing a total of principal and interest for the fund to the time of its expiration in 1972 of an estimated $271,900 This will leave a debit balance of $6,500 which may have to be made up in the latter years of the expenditures of the fund from the general funds of the Society, but which in all probability will be cared for by the diminution in the demands upon the fund

Respectfully submitted,

JAMES F ROONEY, M D, *Chairman*
FENWICK BEEKMAN, M D
EDWARD R CUNNIFFE, M D
MAURICE J DATTELBAUM, M D

Section 12 (*See 105*)

Supplementary Report of the Council—Part IX Committee on Legislation

To the House of Delegates, Gentlemen

The Council Committee on Legislation respectfully submits a supplementary report

The 1949 session of the New York State Legislature adjourned sine die on Wednesday, March 30, 1949 This brought to a close a session that was the longest for a number of years and also one of the most turbulent sessions A record number of bills and resolutions was introduced this year There were 2,673 bills introduced in the Senate and 3,109 bills introduced in the Assembly, making a total of 5,782 Many of the bills were amended and reprinted, resulting in the printed numbers in the Senate running to 3,150 and the printed numbers in the Assembly to 3,564, a total of 6,714. This again was a record number of bills to be reviewed and those reported and followed which were of interest to the medical profession There were also 182 resolutions introduced in the Senate and 194 in the Assembly, making a total of 376 resolutions introduced this year Through the bulletins issued by the Legislative Committee, 109 bills in the Senate and 122 bills in the Assembly were reported to the legislative committees and officers of the county societies and other members of the profession that are interested in this work. Of the 231 bills reported, 87 were concurrent There were 144 individual bills that were followed by the Legislative Committee and reported to the profession

When one considers the number of bills and resolutions that are of sufficient interest to the medical profession to warrant reporting them in our bulletins, it becomes apparent that this great amount of legislative material requires considerable time and study on the part of anyone interested in these matters, if that person is to act intelligently or express an intelligent opinion on them Attention is called to this volume of legislative material of interest to the profession and the amount of time necessary for study and understanding of the material introduced in a single year It is thought that all members of the State Society should be giving more consideration to our legislative program and procedures with the idea of improving our position and of obtaining better results from our efforts Any plans for improving our legislative work should take into consideration this amount of legislative material that must be studied during a legislative session Such plans should also recognize the need for rapid action on a bill that has been introduced There have been occasions where a bill has been reported out of committee, voted on, and passed in both houses, within a week or two weeks from the date of its introduction It can be seen that under these conditions there should be no delay in regard to the study of the bill and an expression of opinion on the part of the medical profession

The preliminary report of the Committee on Legislation lists several bills that were introduced at this session as requested by the House of Delegates at its meeting in May, 1948 It is with regret that we report that the bill, *Senate Int 1656*, introduced by Senator Fino, limiting the activities of the Medical Practice Committee, was not reported out of committee It is also with regret that we report that the Wicks-Lashin Bill, providing for injunction procedure, was defeated on the floor in the Assembly and then, as was to be expected, was not reported out of committee in the Senate The physicians lien bill, *Senate Int 2045*, introduced by Senator Williamson, was lost by vote on the floor of the Senate The Greenberg Bill, amending the practice of medicine by including the words "nervous or mental disorder," progressed to third reading in the Senate The Friedman Bill, amending the Business Law in regard to hospital contracts, was passed in the Senate but did not come to a vote in the As-

sembly The Schupler Bill, placing the practice of anesthesiology under the definition of the practice of medicine, was defeated in committee. The Clancy X-ray Bill was also defeated in committee The above is a summary of the final action on the bills which we were particularly interested in seeing passed.

The chiropractic bill was not brought out of committee until the final days of the session. An effort was made to rush this bill through The bill was reported out of committee and went to third reading in the Senate on Wednesday, March 23 It was voted on on Thursday, March 24, and received 27 votes for and 26 votes against. It was lost at this time as it needed two more votes, or 29 votes, a majority of the 56 Senate votes, in order to pass It was again voted on on Tuesday, March 29 Again it was lost with the same vote as was recorded on March 24. It would appear that only the last minute opposition to this bill prevented its passing the Senate, and it would indicate that it will be necessary for the Medical Society to make even stronger opposition to prevent the passage of this bill next year

The Mailler-Condon sickness disability insurance bill, *Assembly Int. 3063*, passed both houses by party vote and was signed by the Governor This bill is one to which the medical profession was opposed as there are many points in the bill which would appear will be points of embarrassment to the medical profession in the future and also difficulties from the medical angles in administration It is hoped that during the next or some future legislative session, amendments on these points may be introduced and passed Studies in regard to such proposed amendments should be made in the near future

The bill extending the time of postponement of the Nurse Practice Act was defeated. By this action the Nurse Practice Act went into effect April 1, 1949, after some ten years' postponement by yearly action of the Legislature

The bill authorizing podiatrists to carry out compensation work on the same conditions as physicians under the Workmen's Compensation Law was recalled from the Governor after passing both houses, and died in committee

The bill releasing physiotherapists from the supervision of physicians passed the Assembly but did not come to a vote in the Senate It is anticipated that a stronger action will be made along this line next year

The above summarizes the final action on bills with which the Legislative Committee has been particularly concerned during this last session of the Legislature It is to be remembered, however, that at the time of writing this report the thirty-day period for bills in the hands of the Governor is still not completed. As the legislative session this year continued through March 30, the thirty-day period for bills in the hands of the Governor will not be completed until the end of April. The Legislative Committee will inform all county societies of the final action on all bills that we have been following this year, in its final bulletin, which will be issued after the thirty-day period has expired

The Legislative Committee wishes to impress on members of the Medical Society of the State of New York the great amount of legislative matters of interest to the medical profession introduced during the recent legislative session The number of bills in which we are interested is growing each year The pressure from minority groups on many of these matters is becoming stronger and, therefore, the need for continual attention to all legislative matters on the part of the medical profession is greater than ever before It is important for the county societies to emphasize this matter in their programs to a greater extent than ever before It is important that members of the county societies use their influence not only in educating the public on these matters, but in keeping the legislators informed on all matters that are considered important for public health and welfare It is important that the medical profession review its legislative program at these times to consider what improvements can be made that will enable us to be more successful in passing bills that we ask to be introduced and would like to see passed We should consider, also, ways by which we can make known to the legislators and to the public the basis of our opposition to bills that we consider detrimental to the public health and welfare

The Committee on Legislation of the State Society respectfully submits this supplementary report reviewing the results of the legislative session of 1949, and suggests that consideration be given toward strengthening and improving our legislative actions and programs for the future

Respectfully submitted,

FREDERIC W HOLCOMB, M.D , *Chairman*
WALTER W MOTT, M D
JOHN C BRADY, M D

Section 13 (*See 126*)

Supplementary Report of the Council—Part XII Miscellaneous

Belated Bills

In accordance with the Bylaws, Chapter IX, Section 1, belated bills from four members must be submitted to the House of Delegates before they can be paid. Expense accounts are required to be submitted within thirty days after the expenses are incurred, "This time may be extended for any cause by the Board of Trustees and such extension shall not exceed 90 days " As these items were received more than ninety days late, they are respectfully submitted to the House of Delegates with the recommendation that they be approved

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Section 14 (*See 75*)

Remarks of the President

SPEAKER ANDRESEN Dr Winslow, will you and Dr Reuling escort the President, Dr Leo F Simpson, to the rostrum?

The delegates arose and applauded as Drs Floyd S Winslow, of Monroe and James R Reuling, of Queens, escorted Dr Leo F Simpson to the rostrum

712 50 as yet uncollected The estimated expenditures if all of the beneficiaries elect to accept their full quota of the fund will be for each year beginning with 1949 as follows

1949, eight children, $4,800, 1950, 11 children, $6,600, 1951, 12 children, $7,200, 1952, 13 children, $7,800, 1953, 14 children, $8,400, 1954, 15 children, $9,000, 1955, 20 children, $12,000, 1956, 26 children, $15,600, 1957, 33 children, $19,800, 1958, 33 children, $19,800, 1959, 32 children, $19,200, 1960, 35 children, $21,000, 1961, 29 children, $23,400, 1962, 43 children, $25,800, 1963, 41 children, $24,600, 1964, 39 children, $23,400, 1965, 33 children, $19,800, 1966, 26 children, $15,600, 1967, 26 children, $15,600, 1968, 19 children, $11,400, 1969, 15 children, $9,000, 1970, 9 children, $5,400, 1971, 4 children, $2,400, 1972, 2 children, $1,200

It will be seen that the total expenditure of $328,800 exceeds the original estimated expenditure of $242,000 as calculated and given in the report of this committee to the Council and the House in 1948, by approximately $86,800 There have been a number of remissions of the assessment for this fund made by the Council to members of the Society because of illness, service in the armed forces, or other causes of financial hardship deemed by the Council to be valid, which will probably still further diminish the total amount collected for the fund.

It is also estimated by your committee that there will be approximately 10 per cent of the total number of children who will not elect to pursue a graduate or postgraduate professional education which will diminish the demand upon the fund by approximately $33,600, and a further 10 per cent who will not pursue a postgraduate professional education which will still further lessen the sum by approximately $16,800, reducing the total probable expenditures from the fund to $278 400

The monies received from the special assessment have been and, as they continue to accrue, will be invested only in securities legal for investment by savings banks and fiduciary trusts under the laws of the State of New York by direction of the Board of Trustees and will provide a diminishing interest return on the investment averaging approximately $4,000 a year for five years, $1,000 a year for five more years, making a total of $25,000, $500 a year for five later years, making a total of $2,500, and then rapidly reducing till the termination but averaging about $300 a year to 1972, thus making a grand total of $29,900 which will be added as it accrues to the fund and thus providing a total of principal and interest for the fund to the time of its expiration in 1972 of an estimated $271,900 This will leave a debit balance of $6,500 which may have to be made up in the latter years of the expenditures of the fund from the general funds of the Society, but which in all probability will be cared for by the diminution in the demands upon the fund

Respectfully submitted,

JAMES F ROONEY, M D, *Chairman*
FENWICK BEEKMAN, M D
EDWARD R CUNNIFFE, M D
MAURICE J DATTELBAUM, M D

Section 12 (*See 105*)

Supplementary Report of the Council—Part IX Committee on Legislation

To the House of Delegates, Gentlemen

The Council Committee on Legislation respectfully submits a supplementary report

The 1949 session of the New York State Legislature adjourned sine die on Wednesday, March 30, 1949 This brought to a close a session that was the longest for a number of years and also one of the most turbulent sessions A record number of bills and resolutions was introduced this year There were 2,673 bills introduced in the Senate and 3,109 bills introduced in the Assembly, making a total of 5,782 Many of the bills were amended and reprinted, resulting in the printed numbers in the Senate running to 3,150 and the printed numbers in the Assembly to 3,564, a total of 6,714. This again was a record number of bills to be reviewed and those reported and followed which were of interest to the medical profession There were also 182 resolutions introduced in the Senate and 194 in the Assembly, making a total of 376 resolutions introduced this year Through the bulletins issued by the Legislative Committee, 109 bills in the Senate and 122 bills in the Assembly were reported to the legislative committees and officers of the county societies and other members of the profession that are interested in this work. Of the 231 bills reported, 87 were concurrent There were 144 individual bills that were followed by the Legislative Committee and reported to the profession

When one considers the number of bills and resolutions that are of sufficient interest to the medical profession to warrant reporting them in our bulletins, it becomes apparent that this great amount of legislative material requires considerable time and study on the part of anyone interested in these matters, if that person is to act intelligently or express an intelligent opinion on them. Attention is called to this volume of legislative material of interest to the profession and the amount of time necessary for study and understanding of the material introduced in a single year It is thought that all members of the State Society should be giving more consideration to our legislative program and procedures with the idea of improving our position and of obtaining better results from our efforts Any plans for improving our legislative work should take into consideration this amount of legislative material that must be studied during a legislative session Such plans should also recognize the need for rapid action on a bill that has been introduced There have been occasions where a bill has been reported out of committee, voted on, and passed in both houses, within a week or two weeks from the date of its introduction It can be seen that under these conditions there should be no delay in regard to the study of the bill and an expression of opinion on the part of the medical profession

The preliminary report of the Committee on Legislation lists several bills that were introduced at this session as requested by the House of Delegates at its meeting in May, 1948 It is with regret that we report that the bill, *Senate Int 1656*, introduced by Senator Fino, limiting the activities of the Medical Practice Committee, was not reported out of committee It is also with regret that we report that the Wicks-Lashin Bill, providing for injunction procedure, was defeated on the floor in the Assembly and then, as was to be expected, was not reported out of committee in the Senate. The physicians lien bill, *Senate Int 2045*, introduced by Senator Williamson, was lost by vote on the floor of the Senate The Greenberg Bill, amending the practice of medicine by including the words "nervous or mental disorder," progressed to third reading in the Senate The Friedman Bill, amending the Business Law in regard to hospital contracts, was passed in the Senate but did not come to a vote in the As-

sembly The Schupler Bill, placing the practice of anesthesiology under the definition of the practice of medicine, was defeated in committee. The Clancy X-ray Bill was also defeated in committee The above is a summary of the final action on the bills which we were particularly interested in seeing passed

The chiropractic bill was not brought out of committee until the final days of the session An effort was made to rush this bill through. The bill was reported out of committee and went to third reading in the Senate on Wednesday, March 23 It was voted on on Thursday, March 24, and received 27 votes for and 26 votes against. It was lost at this time as it needed two more votes, or 29 votes, a majority of the 56 Senate votes, in order to pass It was again voted on on Tuesday, March 29 Again it was lost with the same vote as was recorded on March 24. It would appear that only the last minute opposition to this bill prevented its passing the Senate, and it would indicate that it will be necessary for the Medical Society to make even stronger opposition to prevent the passage of this bill next year

The Mailler-Condon sickness disability insurance bill, *Assembly Int 3063*, passed both houses by party vote and was signed by the Governor This bill is one to which the medical profession was opposed as there are many points in the bill which would appear will be points of embarrassment to the medical profession in the future and also difficulties from the medical angles in administration It is hoped that during the next or some future legislative session, amendments on these points may be introduced and passed Studies in regard to such proposed amendments should be made in the near future

The bill extending the time of postponement of the Nurse Practice Act was defeated By this action the Nurse Practice Act went into effect April 1, 1949, after some ten years' postponement by yearly action of the Legislature

The bill authorizing podiatrists to carry out compensation work on the same conditions as physicians under the Workmen's Compensation Law was recalled from the Governor after passing both houses, and died in committee.

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The delegates arose and applauded as Drs Floyd S Winslow, of Monroe, and James R Reuling, of Queens, escorted Dr Leo F Simpson to the rostrum

SPEAKER ANDRESEN Dr Simpson, have you anything to add to your report?

DR LEO F SIMPSON Yes, I have a few additional remarks to make, Mr Speaker

Mr Speaker and gentlemen, I am going to limit myself to a few topics that I thought it might be worth while to call to your attention

First, our educational campaign that we are waging against hostile legislation in Washington It is not my intention to list the arguments against such legislation to this House of Delegates That would be carrying coals to Newcastle You are already converts What I plead for is for more and more of you converts to become missionaries in the cause—to labor in the Master's vineyard As missionaries fired with zeal and enthusiasm you will function in the office, in the home, and perhaps on the speaker's platform It was very stimulating for me, at the recent seminar for public speaking conducted in New York by our Public Relations Bureau, to see 175 able doctors, most of them volunteers, stay in the Hotel Commodore from 9 30 in the morning until 4 30 in the afternoon of a beautiful Palm Sunday, and be transformed from converts into missionaries

I must stress that the ultimate object behind all of this campaign is to influence your national congressmen and senators to vote against such legislation This must be done honorably and on the basis of the welfare of our patients and of our country To do this all of your arguments, your speeches, your influence will have to be translated into action—into the writing of letters by innumerable people, by resolutions passed by various civic organizations, by direct appeal to the congressmen, if you know them. If your efforts are not translated into such action our campaign is weakened That is what I mean when I distinguish between converts and missionaries A missionary has knowledge, plus zeal, and he carries through to his goal.

The next topic I wish to speak on is our NEW YORK STATE JOURNAL. It has constantly improved during my term of office I have attended several meetings of the JOURNAL Committee, and have been greatly impressed at the prodigious amount of work of those who make possible bringing the JOURNAL to your offices every two weeks The details and accuracy which are involved, not only in the advertising copy but in the editorials and scientific context, hold me spellbound You know of the fine editorials written by Dr Redway, full of common sense, actuated by high ideals The man, however, who amazed me most was Dr Kosmak. I have reviewed many of the manuscripts which he edited before they were published They were filled with marks of his red pencil, making countless suggestions for their improvement, and he did that alone on 303 articles—one every day in the year, except Sundays If the president of your Society gets a medal, Dr Kosmak should be roundshouldered carrying around those he has already earned On all other matters his judgments are wise and invaluable I know of no more faithful friend of the medical profession or one more deserving of your acclaim.

The next matter I would speak on is our malpractice insurance program. As you know, the Medical Society of the State of New York has a malpractice insurance board which works in close harmony with our insurance company for the welfare of us all. I would advise you to read and to reread the annual report of this board and also that of our counsel, Mr Martin There you will learn most of the causes that have led the Yorkshire Insurance Company to refuse to carry on with us—to put it bluntly, our losses were too great for them. Now we have a new company—one of the best—and it may be our last chance to have one that will enter into a partnership with the State Society If this fails, each of us will have to seek his own protection, and you may depend on it that your premium then will be vastly higher, and your service vastly inferior I would advise all to be insured under our master policy, thereby making it ever more sound, and I would advise all, at any time, to leave all else aside, and to come to the aid of our counsel, should he need you, in the defense of one of your brother physicians

I have spoken of many other matters and of many other persons in my annual report to this House of Delegates, and there is no need to reiterate them here

It has been a very happy year for me and also a rewarding experience to have been your president during the past year I again thank you most sincerely for that privilege

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Let us not be afraid I pass the torch to Dr John J Masterson He is an able and a courageous man He will need the help of all Give it to him with all your heart. (*Applause*)

SPEAKER ANDRESEN Thank you, Mr President! This addition to the President's Report is referred to the Reference Committee on Report of the President, of which Dr Thomas B Wood is chairman

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Remarks of President-Elect

SPEAKER ANDRESEN We now wish to ask Dr McGoldrick and Dr Elliott to escort the President-Elect, Dr John J Masterson, to the platform

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SPEAKER ANDRESEN Dr Masterson, will you make a few remarks?

DR. JOHN J MASTERSON I regret to say they will have to be more than a few I did not intend to make very many remarks this morning, but, in view of the greatest crisis in history that faces not only medicine but our American way of life, I cannot be silent It must be up to you, because you are the leaders of the medical profession in this State and are in a position to carry back to your various county societies our strategy to combat this vicious legislation, to carry on the fight, so I felt that I should go into a little detail as to how we plan to wage it

No one could approach the beginning of a term of office, such as the one with which you have honored me, without being deeply impressed by the unusual responsibilities that lie ahead This would be true even under ordinary circumstances, but it is particularly true now To follow in the footsteps of a man of the distinction of Dr Leo F Simpson and to have the example of his able leadership and wise counsel is reason enough for his successor to feel a sense of humility It is in that spirit that I am preparing to pick up his mantle

You know of the President's recent message to Congress followed in a few days with another bill, more ambitious in its attempt to control the destinies of the people than any yet proposed It calls for government control of medicine, with gentle control

at first. Once the first step is taken, ultimate full control would be inevitable I cannot fathom by what method of reasoning Washington thinks the people are not fit to control the money they earn or unable to make important decisions for themselves Neither do I think they want any more "compulsory hands" in their pay envelope I quote the following from an interview by Senator Taft as reported in the papers of April 15

> I am against the welfare State and I am against socialized or nationalized medicine. The idea, for instance, that people can get their medical care from the government without paying a greater price than they pay today is preposterous No people as a whole can get something for nothing Nothing can so quickly kill the incentive and the production of the people as encouragement to look to the Government as their benefactor and supporter

Mr Truman in his recent message to Congress said the cost of medical care would be less under their plan. After reading the various Hoover reports and the "efficient" methods of conducting many departments of our government, especially the Veterans Bureau and hospital construction program, it is difficult to account for such a statement

We believe compulsory sickness insurance will lead to financial, moral, and political sickness It arouses in the minds of our profession the suspicion that the object of its proponents is not solely the welfare of the public Our only weapons to combat these foreign sociologic concepts are facts and the truth, which we propose to carry to our patients and the public in general. They must know that socialization first controls, and then dictates, and when the citizen loses his sense of social responsibility the State takes over

In the discussions of this latest bill it must very definitely be understood that its effect on the public welfare is our primary consideration In our humble opinion its passage would be catastrophic as far as the health of the people is concerned They would be greatly disillusioned because they are being promised something which cannot be delivered, due to the lack of nurses and hospital beds and the increased demands made on the physicians Its cost would have a tremendous impact on our national economy It has been discredited in the European countries which are now subjects of American bounty We are not in favor of the status quo, and the implementation of the twelve-point program of the American Medical Association will correct any deficiencies in our present distribution of medical care by evolution and not revolution The state of the health of our people is the envy of the world and is being constantly improved by the various agencies, both public and private, that are interested in this work. Only a short time ago the Metropolitan Life Insurance Company stated that a child born today has a life expectancy of seventy years With the glorious record of the achievements of American medicine the medical profession feels that compulsory health insurance would be a backward step, retard research, and would result in lowering the quality of medical care which our people are now receiving It would result not only in the regimentation of the doctor, but the patient as well It would destroy incentive, initiative, and freedom of action and create another enormous government bureaucracy to push the people around and impose a tax burden of an unpredictable amount I don't think any legislation ever proposed in Congress is so vulnerable to attack on account of the grave consequence it would have on the health of our people, our economy, and the ultimate socialization of the state Show me any country with a socialized government where the standard of living is as high as in the United States, which equals our industrial production, where the standard of health of the people, the medical schools, and hospitals compare with ours, and where the individual has the opportunity he has in this country It just does not exist It is our duty to bring this information to the American people

Dr Simpson has referred to our education program, but the real danger is that the people will not be informed in time The program outlined by the American Medical Association and the state and county societies will not win the battle for us unless each individual doctor carries our message to his patients and influential groups in his community We have the advantage in that in each physician's office we have a sounding board to reach our people not possessed by even the Federal Social Security group Generals plan the campaign, outline the strategy, but it is the private in the ranks upon whom the victory depends And we have an active army of 150,000 privates reaching into every hamlet of the country

The danger is that we will fail to make the most of our advantage It would be tragic if at some future date we should be compelled to repeat the words recently uttered by Lord Horder, chairman of the British "Fellowship for Freedom in Medicine," words that surely are echoed by the majority of British physicians Referring to the catastrophe which struck British medicine last year he said

> In January we marched unitedly and effectively, in May, more like rabble, we surrendered! From the very start we have lacked dignity and a due appreciation of our use and value in society We let ourselves be used as pawns

If we wake up some morning and find a package on our doorstep labeled "State Medicine—Nonreturnable," it will be due to the indifference, apathy, and let-George-do-it attitude of the privates in our profession If our people know what is going to happen to them as patients under compulsory insurance there would be such a popular revolt against the measure as has never been seen in this country Who is to inform them? Their physicians, the men they turn to as the natural guardians of their health The doctor has the confidence of his patient The patient will believe him when he says that government's hampering regulations and red tape would retard treatment and interfere with freedom to prescribe what is needed promptly The patient will believe him when he says that the hordes of people forming an assembly line in his office might easily cut the time spent with each patient to two or three minutes, as it does now with many of the physicians under the same plan in England If all the patients in the country are not told this, and told it promptly by their own personal physicians, man-to-man and face-to-face, they may believe the promises of the men who are not charged with the responsibility of fulfilling them and so can promise anything, for, after all, the doctor is going to have to do the work, as he has been doing it all along, and if he says that, based on his knowledge and experience, he won't be able to deliver good medical care because his working conditions will make it impossible, most of his patients are going to believe him. So I call on you to enter on this campaign yourself in behalf of your patients Tell them in a few sentences what you think will happen to them, not only what will happen to you,

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No one could approach the beginning of a term of office, such as the one with which you have honored me, without being deeply impressed by the unusual responsibilities that lie ahead This would be true even under ordinary circumstances, but it is particularly true now To follow in the footsteps of a man of the distinction of Dr Leo F Simpson and to have the example of his able leadership and wise counsel is reason enough for his successor to feel a sense of humility It is in that spirit that I am preparing to pick up his mantle

You know of the President's recent message to Congress followed in a few days with another bill, more ambitious in its attempt to control the destinies of the people than any yet proposed It calls for government control of medicine, with gentle control

at first Once the first step is taken, ultimate full control would be inevitable. I cannot fathom by what method of reasoning Washington thinks the people are not fit to control the money they earn or unable to make important decisions for themselves Neither do I think they want any more "compulsory hands" in their pay envelope I quote the following from an interview by Senator Taft as reported in the papers of April 15

> I am against the welfare State and I am against socialized or nationalized medicine. The idea, for instance, that people can get their medical care from the government without paying a greater price than they pay today is preposterous. No people as a whole can get something for nothing Nothing can so quickly kill the incentive and the production of the people as encouragement to look to the Government as their benefactor and supporter

Mr Truman in his recent message to Congress said the cost of medical care would be less under their plan. After reading the various Hoover reports and the "efficient" methods of conducting many departments of our government, especially the Veterans Bureau and hospital construction program, it is difficult to account for such a statement

We believe compulsory sickness insurance will lead to financial, moral, and political sickness It arouses in the minds of our profession the suspicion that the object of its proponents is not solely the welfare of the public Our only weapons to combat these foreign sociologic concepts are facts and the truth, which we propose to carry to our patients and the public in general. They must know that socialization first controls, and then dictates, and when the citizen loses his sense of social responsibility the State takes over

In the discussions of this latest bill it must very definitely be understood that its effect on the public welfare is our primary consideration In our humble opinion its passage would be catastrophic as far as the health of the people is concerned They would be greatly disillusioned because they are being promised something which cannot be delivered, due to the lack of nurses and hospital beds and the increased demands made on the physicians Its cost would have a tremendous impact on our national economy It has been discredited in the European countries which are now subjects of American bounty We are not in favor of the status quo, and the implementation of the twelve-point program of the American Medical Association will correct any deficiencies in our present distribution of medical care by evolution and not revolution The state of the health of our people is the envy of the world and is being constantly improved by the various agencies, both public and private, that are interested in this work. Only a short time ago the Metropolitan Life Insurance Company stated that a child born today has a life expectancy of seventy years With the glorious record of the achievements of American medicine the medical profession feels that compulsory health insurance would be a backward step, retard research and would result in lowering the quality of medical care which our people are now receiving It would result not only in the regimentation of the doctor, but the patient as well It would destroy incentive, initiative, and freedom of action and create another enormous government bureaucracy to push the people around and impose a tax burden of an unpredictable amount I don't think any legislation ever proposed in Congress is so vulnerable to attack on account of the grave consequence it would have on the health of our people, our economy, and the ultimate socialization of the state Show me any country with a socialized government where the standard of living is as high as in the United States, which equals our industrial production, where the standard of health of the people, the medical schools, and hospitals compare with ours, and where the individual has the opportunity he has in this country It just does not exist It is our duty to bring this information to the American people

Dr Simpson has referred to our education program, but the real danger is that the people will not be informed in time The program outlined by the American Medical Association and the state and county societies will not win the battle for us unless each individual doctor carries our message to his patients and influential groups in his community We have the advantage in that in each physician's office we have a sounding board to reach our people not possessed by even the Federal Social Security group Generals plan the campaign, outline the strategy, but it is the private in the ranks upon whom the victory depends And we have an active army of 150,000 privates reaching into every hamlet of the country

The danger is that we will fail to make the most of our advantage It would be tragic if at some future date we should be compelled to repeat the words recently uttered by Lord Horder, chairman of the British "Fellowship for Freedom in Medicine," words that surely are echoed by the majority of British physicians. Referring to the catastrophe which struck British medicine last year he said

> In January we marched unitedly and effectively, in May, more like rabble, we surrendered! From the very start we have lacked dignity and a due appreciation of our use and value in society We let ourselves be used as pawns

If we wake up some morning and find a package on our doorstep labeled "State Medicine—Nonreturnable" it will be due to the indifference, apathy, and let-George-do-it attitude of the privates in our profession If our people know what is going to happen to them as patients under compulsory insurance there would be such a popular revolt against the measure as has never been seen in this country Who is to inform them? Their physicians, the men they turn to as the natural guardians of their health The doctor has the confidence of his patient The patient will believe him when he says that government's hampering regulations and red tape would retard treatment and interfere with freedom to prescribe what is needed promptly The patient will believe him when he says that the hordes of people forming an assembly line in his office might easily cut the time spent with each patient to two or three minutes, as it does now with many of the physicians under the same plan in England If all the patients in the country are not told this, and told it promptly by their own personal physicians, man-to-man and face-to-face, they may believe the promises of the men who are not charged with the responsibility of fulfilling them and so can promise anything, for, after all, the doctor is going to have to do the work, as he has been doing it all along, and if he says that, based on his knowledge and experience, he won't be able to deliver good medical care because his working conditions will make it impossible, most of his patients are going to believe him. So I call on you to enter on this campaign yourself in behalf of your patients. Tell them in a few sentences what you think will happen to them, not only what will happen to you,

and ask each patient individually and personally to write his senator and representative, and give your patients the name and address of each.

Under the leadership of the American Medical Association, campaign headquarters have been established in Chicago From this source will come the ammunition to be used in the war upon which we are engaged Posters, pamphlets, and circulars in vast quantities will soon be available The over-all strategy calls for the distribution of this ammunition through state and county medical societies, and directly by them to the physicians We now have in more than half the counties of the State organized campaign public relations committees Most of these have functioning speakers' bureaus The other counties should form these committees and get to work before it is too late The Woman's Auxiliary is going into action splendidly to cooperate in the execution of our plans The *News Letter* of the Public Relations Bureau will give a complete and detailed account of the plans from time to time. This *News Letter* will go to officers and public relations committees of county societies

Under the able leadership of Dr Floyd S Winslow and his State Society Public Relations Committee, and with the assistance of Mr Dwight Anderson and his staff, we cannot fail to win our part of this battle, unless we are lulled into a false sense of security by the reports which emanate from Washington that this bill may not pass at this session

We need every member of the Society to go into the front lines, and if all can be recruited and all will follow the plans that have been prepared by Dr Winslow's committee, we can win without any question and stamp out this vicious idea for all time

I urge you to examine the circular matter issued by our Public Relations Bureau which you will find available at the registration desk Order all the supplies you need for your own use Also, visit our campaign headquarters in the press room on the mezzanine floor of this hotel for more detailed plans There the battle orders are ready to be given out to the captains and the lieutenants so they can go back home from here and open up their recruiting offices until our army has in it every member of the Society

I have had an opportunity during the past few years to learn of the highly important services which are rendered by Dr W P Anderton, our secretary, and by Dr George W Kosmak, the able editor of our JOURNAL, as well as by Mr Dwight Anderson, who acts as business manager of our twice-a-month publication This experience has given me adequate reasons for having confidence in the abilities of these men, who will be such a powerful aid to me in the coming year The members of the Society are unaware of the myriad duties performed by our Publication and Office Management Committees who meet monthly and lay down the policies to be executed by the men whom I have named. With the help of these men, and of Dr Winslow and his Public Relations Committee in the campaign upon which we are engaged, my shoulders will be strengthened to carry the serious responsibilities which you have asked me to assume

About two per cent of the membership of American medicine is on the front line as officers of the American Medical Association, the state societies and the county societies We will be living in a fool's paradise if we think that these men alone can win this fight We have formidable opponents, with all of the resources of the government and the administration behind them, and we have got to carry the message to the people that this compulsory health insurance bill is a Trojan horse which will not only lower the services of medical care in this country but, if we can learn anything from history, will mean the socialization of these United States (*Applause*)

SPEAKER ANDRESEN We thank you, Mr President-Elect.

Dr Masterson's remarks will also be referred to the Reference Committee on Report of the President, of which Dr Thomas B Wood is the chairman

Section 16

Introduction of Representatives from Other State Societies

SPEAKER ANDRESEN It is always a pleasure to welcome to our meeting the delegates of other state medical societies As in the past, these states have sent us some of their best men, and I shall ask the representatives from each state, if present, to step to the rostrum and say a few words As far as I know the only one present is Dr Russell B Roth, who represents Pennsylvania, and I am going to ask Dr Leo Schiff to escort him to the rostrum

There was applause from the delegates as Dr Leo F Schiff, of Clinton, escorted Dr Russell B Roth to the rostrum.

DR. LEO F SCHIFF, *Clinton* It is a pleasure to introduce Dr Russell B Roth, representing the State of Pennsylvania

SPEAKER ANDRESEN Thank you, Dr Schiff! Won't you say a few words, Dr Roth?

DR. RUSSELL B ROTH Mr Speaker, Delegates, and members of the Medical Society of the State of New York, it has long been a pleasant tradition of mutual interest and cooperation to have interchanging delegates between your great State Medical Society and that of the State of Pennsylvania

Your Speaker has already explained our interest in what you do here in these ensuing days The medical picture has been changed sufficiently from past years so that all of us find it incumbent upon us to pay more attention to the flood of literature that crosses our desks in reference to the political issues of medicine than we do to the scientific publications What you do here in these next few days will be watched very closely not only by the State of Pennsylvania but by all of the states in the union, by all of the backers who are interested in the promotion of what I think we should perhaps not call organized medicine so much as ethical medicine

I convey to you the regrets of our president, Dr Gilson Colby Engel, that he could not be here personally on this occasion You are probably aware of his specific interests in providing counter measures to compulsory health insurance Those of you who have read the text of the bill recently submitted in the Senate by Senator Lister Hill know that that is a political implementation of Dr Engel's Ten Point Program which he presented to our State Society last year I do not know what the future holds as to the fate of *S 5*, and how fast it is going to come before the Senate of the United States, but we cannot afford to sit back and wait. I, as a representative of the State of Pennsylvania, shall in the next few days watch with avid interest for the purpose of carrying back to my State Society a report on what your attacks and your approaches to the situation will be. (*Applause*)

SPEAKER ANDRESEN Are there any other delegates from our neighboring states present?

There was no response

SPEAKER ANDRESEN From Connecticut, we are expecting Dr James R. Miller, from New Jersey, Dr James F Norton, and from Vermont, Dr Rol- and C McSweeney If they come in later, we will introduce them.

Section 17 (See 5)

Introduction of Members with Oldest Attendance Record in House

SPEAKER ANDRESEN While the discussion was going on, I noticed that one of the gentlemen whom I asked to come to the platform before came in, one of our two oldest members of the House, James F Rooney In view of the fact that we have so little time left I will ask the subsequent speakers to confine themselves to a few remarks, but we would like to hear from our old friend, Dr Rooney, I am sure (*Applause*)

DR. JAMES F ROONEY, *Trustee* Mr Speaker and gentlemen of the House, you don't need to hear anything from me this morning This is something that comes to you as you get older, and unfortunately I think it is a mistake because I am no older now than I was ten years ago You will hear a lot from me within the next few days probably, so I thank you, Mr Speaker, for calling on me

SPEAKER ANDRESEN I am sure we will, Dr Rooney (*Applause*)

Section 18

World Medical Association

SPEAKER ANDRESEN Dr Louis H Bauer, our former President, has asked for a few minutes to discuss the World Medical Association, of which he is the Secretary-General (*Applause*)

DR LOUIS H BAUER Mr Speaker and members of the House, last Thursday at 9 30 P M I was in Madrid, Spain, at 1 15 Friday afternoon I was in New York City I say that to show you how the world is constantly shrinking We are no longer three thousand or five thousand miles away from any country, but just a few hours We, therefore, have got to learn to live together, or we assuredly will not live at all

Following the recent war, an attempt was made to make up an organization of doctors of the world through their national medical associations That organization was finally perfected in Paris in September, 1947 There are now forty national medical associations belonging to this organization We hope eventually to have sixty, including the membership of at least 500,000 doctors

It has been surprising to see how these doctors can work together, and how they think pretty much alike In Geneva last September they adopted twelve principles on social security which you people here might very well have written yourselves They investigated German war crimes, and adopted what we might call a modification of the Hippocratic oath, with the recommendation that it be adopted by all national associations and licensing boards as a prerequisite to membership or licensure

We have been studying medical education throughout the world We have just finished a report, a preliminary one, on medical education in 26 countries of the world—something that has never been done before

We have been studying health practice throughout the world, and I am sorry to say that in the investigation of health practice the United States is one of the very few countries that quacks practice in, in fact, one country wrote in and said that they had no quacks practicing medicine because they all came to the United States

We are also investigating medical advertising and we are preparing a code an international code on medical ethics, and here is an instance of the spirit of cooperation that is prevalent In the meeting in Paris in 1917 there was a feeling, I think, of suspicion and distrust They did not know just how to take us They thought that perhaps the United States and Great Britain wanted to take over this organization and run it Well, we are running it, that is true, nevertheless we are doing it with the wholehearted support and cooperation of all participants That feeling of suspicion and distrust has been entirely dissipated, and in the case of this international code of ethics there were two paragraphs to which the American members objected They were deleted, and in doing so the Frenchman, who speaks practically no English, turned to Dr Henderson, the chairman of the Board of Trustees of the American Medical Association, and said, "That was for you," which shows how they are looking now to the United States for help and support

I want to distinguish between the World Medical Association and the World Health Organization The World Health Organization is a branch of the United Nations, and it receives its support from governmental funds It is concerned more particularly with the public health aspects of medicine, whereas the World Medical Association is a private organization composed entirely of national medical associations, and run by the medical profession, and its aims are to raise the standards not only of health but of medical care and of medical education throughout the world, and to better the international relations among various countries The support of the World Health Organization, as I say, comes from government funds, the support of the World Medical Association has to be obtained from private sources In many of these countries their associations don't have any money, never have had, and even if they have it they cannot get it out of the country at the present time Therefore, when we went over for the organization of this World Medical Organization two years ago those of us from the United States felt that if this organization was ever to be anything more than a nice little correspondence club it would have to have money, consequently we organized a United States Committee of the World Medical Association, which was incorporated as a nonprofit organization under the laws of the State of New York, and we have asked associations and individuals to become members of that Committee to render support to the World Medical Association to make sure that it could do a job All of these things that I have mentioned—and there are others I won't take your time to go over—have been accomplished purely because we have been able to raise the funds in this country Organizations like the American Medical Association, which is a member of the World Medical Association itself and also a member of the United States Committee, the Mayo Clinic, the International College of Surgeons, the College of Radiology, the Medical Society of the State of New York, the Nassau County Medical Society (I am proud to say because that is my own county society) and numerous other medical organizations, organizations like the National Tuberculosis Association, American Cancer Society, etc, and many of the pharmaceutical houses have contributed We want to have at least five thousand individual members of the Committee The members will receive all of the publications and reports of the Committee as well as the *Bulletin of the World Medical Association*, which will be issued quarterly They will receive a certificate of membership in the Committee, but what I hope will be of more interest to you is the feeling that by joining this Committee you yourselves, can feel that you are helping to raise the standards of medical education and medical care throughout the world

These people are looking to us for help When I was in Madrid, Dr Sensenich, the president of the American Medical Association, and Dr Henderson, the chairman of the Board of Trustees of the American Medical Association, were cabled to return to the States immediately on account of the Truman announcement last week, so they returned before me The president of the Association is a Frenchman, and he said, "I am sorry they are going, but on the other hand I am glad because if you succeed over there perhaps we may succeed in preventing any further socialization here, but if you succumb we will succumb" So they are looking to us for help, and we cannot let them down

We have outside here a young lady who will be glad to enter your subscription as individual members She also will be up in the exhibit hall during the rest of the week. I would like to see every member of the House of Delegates become a member of this Committee Every officer of the American Medical Association is a member of this Committee and eighty per cent of the House of Delegates of the American Medical Association are members of this Committee Many of you here are already, and those of you who are not I hope will be

Thank you! (*Applause*)

SPEAKER ANDRESEN Thank you, Dr Bauer

Section 19

Tribute to Vice-Speaker Strohm

SPEAKER ANDRESEN I regret to inform you about the illness of one of our friends and one of our hardest workers for the Medical Society Fortunately, he is now convalescing, and we hope he will soon be restored to full health He has shown courage and rare devotion to duty in coming here today I refer to our Vice-Speaker, Dr Nelson W Strohm

Dr Strohm, will you take a bow (*Prolonged applause*)

SPEAKER ANDRESEN We are now ready for resolutions It is important to have all resolutions introduced this morning so that our reference committees may consider them this afternoon It means much extra trouble for these hard working committees if delayed resolutions require additional meetings, and for us it means we will be spending more time tomorrow in session if we don't get almost all of our resolutions introduced today

Section 20 (*See 164*)

Hospitals in the Practice of Medicine

DR. J STANLEY KENNEY, *Planning Committee for Medical Policies, a Special Committee of the House of Delegates*

Mr Speaker and members of the House, the Planning Committee for Medical Policies is the sponsor of this resolution It had intended to present a supplementary report in a little more detail if that were possible, but the Committee met yesterday to consider a supplementary report from one of its subcommittees, and on the basis of that I am going to present this resolution to the House from the Planning Committee for Medical Policies

"WHEREAS, the Medical Society of the State of New York is heartily in accord with all movements that will afford the adequate training of students of medicine, the prevention and treatment of disease, and the establishment of medical care on economic planes which will not result in the deterioration of the individual practice of medicine or the lowering of the standards of medical care of the sick, and

"WHEREAS, there has been a tendency for certain hospitals and teaching institutions to open clinics for the practice of medicine for profit, and

"WHEREAS, we do not believe this is necessary for teaching purposes, and

"WHEREAS, we believe in the end it will lead to an inferior type of medical care for the public at large, therefore be it

"*Resolved*, that this committee recommend to the House of Delegates that the resolution previously passed by the House of Delegates (NEW YORK STATE JOURNAL OF MEDICINE, Part II September 1, 1948, page 18, paragraph 3) be called to the attention of hospitals and teaching institutions, and be it further

"*Resolved*, that a conference of deans of medical colleges and representatives of hospitals and teaching institutions be held to discuss and formulate a policy which is in the public's interest, and be it further

"*Resolved*, that all hospitals and teaching institutions be requested to take no further action until such time as the above policy has been formulated"

Mr Speaker, I would like one minute more to clarify this in the minds of the House, for there are quite some who seem confused This Planning Committee for Medical Policies is a special committee of the House of Delegates, and it is not a Council Committee. The three recommendations that appeared in the printed report we feel are of such import that I sincerely hope that those of you who have those recommendations will take the time to go before the Reference Committee, because what we have attempted to do we do not consider as final action, but we have given you what we, after considered thought, believe are sound opinions on the three subjects involved They were presented as recommendations in the report, and perhaps it is superfluous, Mr Speaker, but I have here in the usual form three resolutions which implement the recommendations of the Planning Committee which are published in the report I had some prepared in the interests of taking the labors off the Reference Committee.

SPEAKER ANDRESEN The report of the Planning Committee and this resolution are referred to the Reference Committee on the Report of the Planning Committee, of which Dr Thomas M D'Angelo, of Queens, is chairman

The three resolutions referred to by Dr J Stanley Kenney are as follows

Section 21 (*See 164*)

Medical Services in Hospital and Blue Cross Contracts

The following resolution is introduced to implement the recommendation contained in the 1949 Report of the Planning Committee for Medical Policies

"WHEREAS, the Medical Society of the State of New York has repeatedly passed resolutions defining radiology, pathology, anesthesiology, and physical therapy as the practice of medicine, and

"WHEREAS, this principle has been generally recognized by all concerned with relationships to these fields of medical practice, and

"WHEREAS, a large proportion of the practitioners in these fields have continued to make contracts with hospitals for full-time employment, and it has not been held to be unethical to do so, and

"WHEREAS, surgeons, internists, and other specialists are engaging in the same practices and are now signing full-time contracts with hospitals, and

"WHEREAS, it has been held that when a hospital employs such a licensed practitioner the work done by this practitioner is the practice of medicine by this practitioner and not by the hospital, and

"WHEREAS, the decision of the Attorney General does not change the definition of medical practice but points out that the hospitals are merely contracting for services of practitioners in their employ, and

"WHEREAS, the Medical Society of the State of New York must be sympathetic to any organized effort on the part of the practitioners in the various specialties to refuse to enter into salary contracts with hospitals and to demand the privilege of rendering bills for services separate from hospital bills, but no such organized effort has been made, therefore be it

"*Resolved*, that unless and until the specialists involved are willing to refuse to renew existing salary contracts with hospitals, and to refuse to enter into any further similar arrangements, it is the judgment of this body that it will be very difficult to correct this situation except through negotiations between the hospitals and the practitioners in the various specialties concerned"

Section 22 (*See 163*)

Reorganization of the District Branches

The following resolution is introduced to implement the recommendations contained in the 1949 Report of the Planning Committee for Medical Policies

"1 That Richmond County be separated from the present First District and added to the present Second District Branch. This is convenient both geographically and from the standpoint of good transportation

"2 That Westchester, Bronx, and New York Counties constitute a new district This could retain the present number one designation or be given a new number at the discretion of the House

"3 That Ulster and Sullivan Counties, along with Orange, Dutchess, Putnam, and Rockland Counties, be made a new district, the numerical designation to be at the discretion of the House

"4. That the several district branches arrange to employ an executive secretary, full- or part-time, to coordinate the various activities, public relations, legislation, workmen's compensation, and others of the component county societies, and we further recommend that the expenses of such executive officer be entirely provided for by the various county societies making up the district"

Section 23 (*See 165*)

Group and Contract Practice

The following resolution is introduced to implement the recommendations contained in the 1949 Report of the Planning Committee for Medical Policies

"WHEREAS, group practice is now established in New York State, and many new problems confront the profession in relationship to this type of practice, therefore be it

"*Resolved*, that the House of Delegates authorize a continuing study and critical survey of this problem of group and contract practice and instruct the Council to implement this action through the proper agency or committee to the end that we shall always be kept apprised of changing conditions in these areas of practice and be prepared to deal effectively with them"

Section 24 (*See 89*)

Medical Specialty Boards—Admission to Examination

DR. SAMUEL Z FREEDMAN, *New York* The following resolution was approved at the January 24, 1949, meeting of the Medical Society of the County of New York

"WHEREAS, the specialty boards in the various fields of medicine serve the purpose of setting criteria of scholarship, training, and ethics, and

"WHEREAS, certification by a specialty board confers upon a physician recognition of proficiency which is highly regarded by his colleagues and the layman, and

"WHEREAS, to deny to a physician who meets the basic training, postgraduate, and ethical requirements entrance to the examination necessary for certification in a specialty withholds from the candidate the recognition in such specialty of his colleagues and the patients he serves, thereby by inference branding him as inferior to those who are certified, and

"WHEREAS, since specialty board certification is an extremely important factor in obtaining admittance to the staffs of most recognized hospitals, the denial of certification to a physician who meets the basic training, postgraduate and ethical requirements of the Specialty Board accordingly unduly restrains him in the full practice of his profession, now, therefore, be it

"*Resolved*, that the Medical Society of the County of New York recommend that all physicians who are duly licensed to practice medicine in the State of New York and who meet the basic training, postgraduate, and ethical requirements of a specialty board be admitted to the examination given by the specialty board without regard to race, religion, color, sex, or national origin, and be it further

"*Resolved*, that the Secretary of the Medical Society of the County of New York be directed to send copies of this resolution to the presidents of each Specialty Board and to the chairman of the Advisory Board of the Medical Specialties, and be it further

"*Resolved*, that the delegates to the Medical Society of the State of New York are hereby instructed to introduce and work for the passage of this resolution in that body and in the House of Delegates"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore is chairman

Section 25 (*See 164*)

Resolution to Restrain Hospitals from Engaging in the Practice of Medicine

DR. BENJAMIN M BERNSTEIN, *Kings*

"WHEREAS, the rendering of medical services and the application of the principles of the art and science of medical practice must remain in the hands of qualified physicians practicing individually or in groups, and

"WHEREAS, no governmental or other agency

These people are looking to us for help When I was in Madrid, Dr Sensenich, the president of the American Medical Association, and Dr Henderson, the chairman of the Board of Trustees of the American Medical Association, were cabled to return to the States immediately on account of the Truman announcement last week, so they returned before me The president of the Association is a Frenchman, and he said, "I am sorry they are going, but on the other hand I am glad because if you succeed over there perhaps we may succeed in preventing any further socialization here, but if you succumb we will succumb" So they are looking to us for help, and we cannot let them down

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"WHEREAS, a large proportion of the practitioners in these fields have continued to make contracts with hospitals for full-time employment, and it has not been held to be unethical to do so, and

lution is introduced by the Bronx County Medical Society It concerns itself with diabetes detection drives, of which one was run last year, and which will be run again annually

"WHEREAS, it is within the province of the American Medical Association on a national, state, and county level to direct public health education and disease detection drives for the public benefit, and

"WHEREAS, lay-directed organizations have taken the leadership in these campaigns, and public fund raising has become a prominent feature of these projects, and

"WHEREAS, the Federal government through the United States Public Health Service has already taken steps in regard to the problem of detection and education in diabetes, and

"WHEREAS, diabetes being neither contagious nor epidemic is not truly a government problem, and

"WHEREAS, the American Diabetes Association, a branch of the profession of medicine, has begun a nation-wide detection drive to be conducted annually and directed solely by members of the medical profession without fund-raising appeals, and

"WHEREAS, the American Diabetes Association has carried and will carry its detection drive to the people only through the American Medical Association, the state and county societies, therefore be it

"*Resolved*, that the New York State Medical Society record its approval of the Diabetes Association's detection drive, and be it further

"*Resolved*, that the Public Health Committee and the Industrial Medicine Committee of the New York State Medical Society, together with a specially appointed committee for Diabetes Detection, be instructed to cooperate with the American Diabetes Association and its local associations in conducting diabetes detection drives in this State, and be it further

"*Resolved*, that the delegates to the American Medical Association be instructed to introduce these resolutions at the June, 1949, session of the American Medical Association, or support similar resolutions that may be introduced"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VI, of which Dr Thomas O Gamble, of Albany, is chairman.

Section 30 (*See 136*)

Concerning Listing of Union Health Center in the State Medical Directory as an Industrial Clinic

DR. PETER M. MURRAY, *New York* On behalf of the Medical Society of the County of New York, I wish to introduce the following resolution

"WHEREAS, in the 1949 *Directory of the Medical Society of the State of New York* there is listed the Union Health Center under the section of Hospitals and Clinics, and

"WHEREAS, at a special meeting on September 29, 1948, of the Committee on Medical Economics, of the Medical Society of the County of New York, this listing was anticipated and unanimously disapproved, and

"WHEREAS, the Comitia Minora meeting on October 11, 1948, agreed with the action of the Committee on Medical Economics, and

"WHEREAS, at a general meeting of the Society the recommendation of the Comitia Minora in this matter was accepted, and

"WHEREAS, on November 19, 1948, the Medical Society of the State of New York was informed of the action of the Comitia Minora and its recommendation 'That it request the Medical Society of the State of New York to withhold approval of the listing of the Union Health Center in the State Medical *Directory* as an Industrial Clinic, pending further investigation by a subcommittee of the Medical Economics Committee', and

"WHEREAS, the Union Health Center does not meet the requirements for listing in the *Directory*, therefore be it

"*Resolved*, that the delegates from the Medical Society of the County of New York be instructed to introduce and attempt to carry through a resolution at the coming meeting of the House of Delegates of the Medical Society of the State of New York condemning this action, and be it further

"*Resolved*, to recommend to the Publication Committee of the Medical Society of the State of New York to eliminate the Union Health Center listing in the next issue of the Medical *Directory*"

This resolution was introduced at the Stated Meeting of the Medical Society of the County of New York on April 25 and passed, and the delegates were instructed to introduce it in this House

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part XI, of which Dr Eugene H Coon, of Nassau, is chairman

Section 31 (*See 142*)

Voluntary Service in Medical Corps of the Armed Forces

DR. ALFRED P INGEGNO, *Kings* The first resolution, gentlemen, is one presented by Dr Andresen

"*Resolved*, that the component county medical societies of the Medical Society of the State of New York be, and hereby are, urged by this, their House of Delegates, to exert every effort in their community to insure that a sufficient number of available physicians, particularly young interns and residents, be encouraged to volunteer to serve their nation in the medical corps of the armed forces"

SPEAKER ANDRESEN I would like to say I had nothing to do with introducing this This came from the headquarters of the Area Service Unit asking us to present this resolution

This is referred to the Reference Committee on the Report of the Council, Part I, of which Dr Scott Lord Smith, of Dutchess, is chairman

Section 32 (*See 93*)

Tenure of Hospital Staff Appointments

DR. ALFRED P INGEGNO, *Kings* Resolution of the Medical Society of the County of Kings, concerning tenure of hospital staff appointments, which was passed unanimously at a stated meeting on April 19, 1949, with instruction that it be submitted to this House of Delegates

"WHEREAS, proper and equitable hospital administration should include provisions in hospital bylaws which adequately protect the staff appointments of physicians from capricious or summary termination, particularly after a reasonable probationary period of service or after attainment of appropriate staff rank, be it therefore

"*Resolved*, that the Medical Society of the County of Kings, through its delegates, recommend to the Medical Society of the State of New York that an appropriate committee, working in

should be permitted either to control or to render medical care or services, and

"WHEREAS, the practice of medicine embraces services performed by radiologists, pathologists, and anesthesiologists, both in private practice and in hospitals, and

"WHEREAS, hospitals are now engaging in the provision of the services of such specialists without regard to their standing as specialists in the practice of medicine, and

"WHEREAS, in addition to the services of these specialists, hospitals are increasingly active in employing full-time specialists in other categories, and the providing of the services of these specialists to the public and charging and collecting fees for such services rendered, and

"WHEREAS, the division of fees by individuals and groups is forbidden by the accepted codes of medical ethics and by the provisions of the Education Law of the State of New York, now, therefore be it

"*Resolved*, that such activities on the part of hospitals are herewith construed as being in violation of regulations governing the practice of medicine and are, therefore, condemned, and be it further

"*Resolved*, that the Council be instructed to take immediate action under existing legal and ethical codes to stop these activities by hospitals, and be it further

"*Resolved*, that the Council be instructed to sponsor and support the reintroduction of the Friedman bill (*Senate Introductory 2402*), which was passed by the State Senate at the last session of the Legislature and which would legally forbid hospitals from carrying on the practices described in this resolution"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Planning Committee for Medical Policies, of which Dr Thomas M D'Angelo is the chairman, and which has had referred to it a similar resolution introduced by Dr Kenney for the Planning Committee

Section 26 (*See 150*)

Lien Law

DR. ABRAHAM KOPLOWITZ, *Kings* This is an old proposition, Mr Speaker and delegates, that we have been fighting for for a great many years, and still have not succeeded in getting

"WHEREAS, a bill to amend the lien law and civil practice act in relation to liens of physicians for treatment and care of certain injured persons was introduced in the 1949 Legislature of the State of New York, which bill was not passed, therefore be it

"*Resolved*, that the Medical Society of the State of New York request the reintroduction of the *Senate Introductory 2045* of 1949 to the 1950 Legislature of the State of New York, and be it further

"*Resolved*, that the Medical Society of the State of New York actively work for the passage of this bill."

SPEAKER ANDRESEN This is referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A. Eggston is the chairman

Section 27 (*See 135*)

Medical Directory

DR. NORMAN S MOORE, *Tompkins* At a meeting of the Tompkins County Medical Society held March 21, 1949, the following resolutions were adopted, and their delegate instructed to introduce them to this House of Delegates

"WHEREAS, the biyearly publication of th *Medical Directory of New York, New Jersey an Connecticut* and its distribution to all members c the New York State Medical Society withou charge entails a great drain on the finances of th Medical Society of the State of New York amounting to $85,000 this year, and

"WHEREAS, an expense of this magnitude ap pears to be unnecessary and unwarranted, there fore be it

"*Resolved*, that the House of Delegates direct that one of two alternative courses be taken, to wit

"1 That the *Directory* be published every two years and sold at cost to those members who desire a copy, or

"2 That the *Directory* be published every five years and distributed without charge to all members, with the understanding that supplements be published at intervals and distributed by subscription during the period between issues of the *Directory* in order to keep the function of the *Directory* up to date"

SPEAKER ANDRESEN Referred to Reference Committee on Report of the Council, Part XI, of which Dr Eugene H Coon, of Nassau, is chairman

Section 28 (*See 156*)

American Medical Association Assessment—Suggestion for Use of Funds

DR. NORMAN S MOORE, *Tompkins* Resolution Number 2

"WHEREAS, the House of Delegates of the American Medical Association has voted to assess each member of the Association twenty-five dollars ($25) to be 'used for a nation-wide plan of education on the progress of American medicine, the importance of the conservation of health, and the advantages of the American system in securing a wide distribution of a high quality of medical care', and

"WHEREAS, this statement does not recognize the necessity of taking positive action to remedy current defects in the distribution of medical care that are cause for complaint and to develop further a comprehensive nation-wide program for adequate medical care for all, as an alternative to the government proposals, and

"WHEREAS, the development of a nation-wide system of voluntary prepayment sickness insurance appears to be an integral part of such a program, therefore be it

"*Resolved*, that the funds collected from this assessment be used for (1) a program to discover weaknesses in the current distribution of medical care and develop means for remedying them, and (2) plans for adequate nation-wide voluntary sickness insurance, rather than chiefly for education and propaganda concerning our present system of medical care and its progress, and further be it

"*Resolved*, that the delegates to the American Medical Association from the Medical Society of the State of New York be instructed to introduce this resolution at the next regular meeting of the American Medical Association"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VI, of which Dr Thomas O Gamble, of Albany, is chairman

Section 29 (*See 92*)

Diabetes Detection Drives

DR. FREDERICK W WILLIAMS, *Bronx* This reso-

mands the binding together of the entire medical profession to the point that the American Medical Association's failure to pass this resolution last year should be reconsidered. Let the State delegates inform the American Medical Association of the unanimous passage of this resolution last year and let them strongly urge favorable action by the American Medical Association at the annual session in Atlantic City in June, 1949"

SPEAKER ANDRESEN This resolution is referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A Eggston, of Westchester, is the chairman

Section 36 (*See 127*)

Amendment of Section 31 of Principles of Professional Conduct

DR. SAMUEL B BURK, *New York* Mr Speaker, officers, ladies and gentlemen, I have before me a suggestion relating to the Principles of Professional Conduct which I have been instructed to present before this august body by the Medical Society of the County of New York. I want to preface my remarks by the following As a member of the Board of Censors for many years I know there are problems that have been presented to us which call for certain action, and in view of the present situation there are certain changes which we should like to recommend

It also takes into consideration the fact that television is now becoming one of the modes of passing on the word to the public relating to the activities of our Medical Society for the care and welfare of our patients With your kind permission I shall proceed.

Dr Burk then read the following, which Secretary Anderton caused to be distributed to each delegate in advance of the reading for their convenience in following the proposal.

Suggestion to the Medical Society of the State of New York to amend Section 31 of Principles of Professional Conduct

"31 (*a*) Physicians, as individuals or as members of any group, institution, or organization, howsoever named, shall not resort to lay solicitation of patients in any form or manner whatsoever, directly or indirectly, or knowingly aid or permit others to make use of them in any form or manner of advertising or publicity through lay channels which would be tantamount to the solicitation of patients on their behalf, or employ any means or methods whatsoever to gain the attention of the lay public for the purpose of obtaining patients

"(*b*) Physicians shall not promise radical cures or refer to their singular achievements or unique or outstanding practices or the like, nor shall they boast of cases, operations, cures, or remedies, or inspire or knowingly aid or permit the publication of reports of any thereof, publicly through lay channels

"(*c*) Physicians shall not give, for use in connection with their name or photograph in any manner or form of advertising or publicity through lay channels, any endorsement, approval, certificate, report, or statement regarding any therapeutic agent, apparatus, or appliance, or any commercial article, or regarding any property, test or application thereof, or regarding the manufacturer or seller thereof Distribution of medical reprints should be limited strictly to the medical profession

"(*d*) It is suggested that before releasing any book, magazine, periodical, or newspaper article, or other writing or any statement or interview for lay publication and before taking part in any moving picture, radio or television broadcast, or making any statement before any public meeting or assemblage, and before approving any advertisement, announcement, or other publicity with respect to any of the foregoing, members of the Society, wherever time shall permit, should submit all pertinent data thereon to, and avail themselves of the advice and counsel of, any committee, bureau, or other facility of this Society, or of his own county medical society, which may be maintained or provided for the purpose of giving such advice and counsel, and should thereafter govern themselves accordingly Each member should be careful to insist, wherever time permits, in dealing with lay organizations, that no interview or statement, and no advertisement, announcement, or other publicity with respect to any of the above-described activities shall be published or made use of unless and until approved in writing by the member When consulted, the committee, bureau, or facility so consulted should render its decision in writing to the physician as promptly as reasonably possible In giving any such advice and counsel or in rendering any such decision, the committee, bureau, or facility involved shall be guided by the provisions of this Section 31, as interpreted in the light of the underlying motive, habit, and intention of the member and his standing and reputation in the profession and in the community and of the essentially educational or instructive, as distinguished from self-seeking or personal, character of the communication itself

"(*e*) Physicians shall not attempt to secure patients through solicitors, runners, contact men, or agents of any kind, or pay, or offer to pay, any fee, gratuity, commission, or bonus in return for the obtaining, referring, recommending, or procuring of any patient

"(*f*) Physicians should not become or remain associated or identified with any corporation, organization, group, or individual, medical or lay, resorting to or making use of direct advertising to the public for business of a medical or a therapeutic nature, or having to do with the diagnosis, care or treatment of the sick or injured, the maintenance of health or the prevention of disease"

DR. BURK I might add, gentlemen, this is the brain child of some of the members of the Medical Society of the County of New York, particularly the chairman of the Board of Censors, and the Academy of Medicine of the City of New York. At those conferences there were also members of the Medical Society of the State of New York who sat in on them, and here you have this suggestion presented to you

Thank you!

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part XII, of which Dr Joseph A Geis, of Essex, is chairman

Section 37 (*See 110*)

Representative of the Five Counties to Be Included in the Committee on Legislation

DR. MARGARET JANEWAY, *New York* This is presented at the instruction of the Medical Society of the County of New York

"*Resolved*, that the Medical Society of the County of New York instruct its delegates to the House of Delegates of the Medical Society of the State of New York to introduce a resolution that

conjunction with other interested groups such as the New York Hospital Association, initiate studies to define just and widely applicable standards for dealing with problems relative to tenure of hospital staff appointments"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VI, of which Dr Thomas O Gamble, of Albany, is chairman We will give Dr Gamble something more to do

Section 33 (*See 119*)

Voluntary Health Insurance (National Enrolment Agency)

DR G W MCAULIFFE, *New York* The following resolution was approved at the Stated Meeting of the Medical Society of the County of New York, held on Monday, April 25, 1949

"WHEREAS, the problem of making voluntary health insurance available to everyone is of paramount interest to every physician, and

"WHEREAS, we believe that some form of a national plan is necessary in order to accomplish this end, now, therefore, be it

"*Resolved*, that a national enrolment agency be established under the direction of the Blue Shield and medical profession and to include an insurance company legally qualified to write voluntary health insurance in those areas where this is not available and to also act as an enrolment agency for local plans, and be it further

"*Resolved*, that this organization develop a contractual agreement at the top level with the corresponding organization now being formed by the Blue Cross Commission for hospital insurance in order that both sickness and hospital insurance may be presented to the public, and be it further

"*Resolved*, that the delegates from the Medical Society of the County of New York be instructed to introduce a similar resolution at the meeting of the House of Delegates of the Medical Society of the State of New York to the end that the delegates from the Medical Society of the State of New York be instructed to introduce a similar resolution at the meeting of the House of Delegates of the American Medical Association at Atlantic City in June, 1949"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of Council, Part VII, of which Dr Guy S Philbrick, of Niagara, is chairman

Section 34 (See *120*)

Voluntary Health Insurance (National Plan)

DR. FELIX OTTAVIANO, *Madison* Mr Speaker, I realize that several resolutions have been presented this morning that more or less combine the gist of this one. However, it was felt by my constituents in Madison County that we have no over-all plan as physicians The American Medical Association has no plan, in spite of its 12-point program, which is really something to offer in place of the government plan Therefore, I would like to present this, and it is up to the Committee itself then which it will present to the delegates for action

"WHEREAS, it is known and recognized that many of the existing voluntary health and medical insurance plans do not fully and adequately cover all illnesses, especially those of a catastrophic nature, and

"WHEREAS, the present and accepted voluntary health and insurance plans do not cover all classes, and

"WHEREAS, the medical profession is vitally interested in the health and welfare of all people and is desirous of meeting and improving any deficiencies that may exist in medical care, and

"WHEREAS, the 12-point plan, as recently proposed by the American Medical Association, makes no provision for a general and over-all voluntary national health insurance plan, therefore be it

"*Resolved*, that the Medical Society of the State of New York, now in convention, instruct and direct its delegates to the next annual session of the American Medical Association to present a resolution before that body recommending a general and over-all voluntary national health insurance plan be developed, which will include all classes, be available to all individuals as well as groups of individuals, and therein provide for full and complete coverage of all illnesses"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of Council, Part VII, of which Dr Guy S Philbrick, of Niagara, is chairman.

Section 35 (*See 154*)

Amendment of Article 5 of Constitution and Bylaws of the American Medical Association

DR. J HOMER CUDMORE, *New York* The following resolution was introduced by the Medical Society of the County of New York on April 25, 1949, and approved

"WHEREAS, some county medical societies in various parts of the United States exclude from their membership physicians of certain races, regardless of their professional ability or ethical standing, and

"WHEREAS, physicians so excluded from county societies are thereby excluded from membership or fellowship in the American Medical Association, and

"WHEREAS, physicians excluded from membership in the American Medical Association are for that reason denied the right to apply for membership in other national professional societies where membership in the American Medical Association is a prerequisite, and

"WHEREAS, these physicians are thereby restrained in the legitimate pursuit and furtherance of their professional activities, and

"WHEREAS, this exclusion of physicians on the basis of race constitutes an affront to our colleagues, a degradation of the honored traditions of our profession, and a violation of our American democratic ideal, therefore be it

"*Resolved*, that Article 5 of the Constitution and Bylaws of the American Medical Association shall be amended to state 'No constituent association shall exclude from membership any physician for other than professional or ethical reasons', and also be it

"*Resolved*, that the delegates of the Medical Society of the County of New York are hereby instructed to introduce this proposed amendment at the annual meeting of the House of Delegates of the Medical Society of the State of New York, to be held in 1949, to the end that this proposed amendment shall be introduced at the annual meeting of the House of Delegates of the American Medical Association to be held in 1949, and further be it

"*Resolved*, that the delegates of our County Society firmly impress upon the House of Delegates of the Medical Society of the State of New York that the course of world events today de-

"*Resolved*, by the Medical Society of the County of Herkimer

"1 That the Medical Society of the County of Herkimer urge some of the older members of the House of Delegates to the American Medical Association from the Medical Society of the State of New York to refrain from seeking re-election

"2 That the House of Delegates of the Medical Society of the State of New York at this meeting include a more representative and younger group of delegates to the American Medical Association House of Delegates in its annual selection of such delegates"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A Eggston, of Westchester, is chairman

Section 41 (*See 117*)

Medical Indemnity Payments

DR. ANTHONY C GALLUCCIO, *Bronx* This is a short resolution presented by the delegation of the Bronx County Medical Society

"WHEREAS, the medical profession has consistently supported the right of a patient to free choice of physician, and

"WHEREAS, contract restrictions under certain voluntary insurance plans tend to deny or restrict the right of free choice of physician, therefore, be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York endorse in principle legislation that will preserve this right of free choice, especially as it pertains to indemnity payments to patients insured in voluntary insurance plans"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VII, of which Dr Guy S Philbrick, of Niagara, is chairman

Section 42 (*See 152*)

Endorsement of the American Medical Association 12-Point Program

DR. J P HENRY, *Monroe* This resolution was adopted by the Medical Society of the County of Monroe at a meeting on the 15th day of March, 1949, and I was instructed to introduce it

"WHEREAS, the future of medicine in the United States depends upon the maintenance of that democratic system which has already led to a standard of medical care and public health superior to that in any other country, and

"WHEREAS, medical care is expanding as fast as possible in the United States during its postwar stage, especially considering that one third of the American physicians served in the armed forces, many of whom have been but recently returned to civilian life, and

"WHEREAS, there are in the 81st Congress bills whose purpose is to provide a national health insurance and public health program, and

"WHEREAS, these measures would institute a system of compulsory health insurance and compel the imposition of an additional payroll tax to finance them, thus causing a hardship to the average wage earner, and

"WHEREAS, compulsory health insurance would lower the quality of medical care, impair the relationship between doctor and patient, and lead to the control of American medicine by an enormous bureaucracy, and

"WHEREAS, there is now available a wide variety of voluntary prepaid medical care insurance plans which provide the public with the opportunity to budget for expenses of medical care without dictation by the government, now, therefore, be it

"*Resolved* by the Medical Society of the County of Monroe, meeting in regular session this fifteenth day of March, 1949

"1 That the members of the Medical Society of the County of Monroe affirm their unanimous opposition to any present or future bills embodying the compulsory health insurance principle.

"2 That the members of the Medical Society of the County of Monroe approve and endorse wholeheartedly the 'Twelve-Point Program' adopted by the American Medical Association

"3 That we endorse the local implementation of the A M A program as contained in the Monroe Plan

"4 That for the purpose of encouraging the very healthy upsurge of physician interest in medical-economic problems, the following are recommended

"(*a*) Major problems to be considered by the House of Delegates should be sufficiently publicized prior to action to allow county and State Society members to advise their delegates of local opinion on the problems in question

This implies that as far as practical, the agenda of the House of Delegates meetings be submitted to each county society

The intent of this recommendation is to stimulate free discussion of major policy by all physicians

"(*b*) Liberalization of the editorial policy of the *Journal of the American Medical Association* is suggested so that minority opinion can comfortably be given expression. The establishment of a democratic discussion forum in the A.M A. *Journal* will do much to clarify intraprofessional differences The opportunity for ventilating repressed convictions can operate to produce insight, interest, and necessary compromise in problems facing all physicians

"(*c*) Establishment of a Bureau of Information which will regularly channel detailed current information to the county society level We feel that there is an unforgivable ignorance by physicians, in general, on problems of medical economics This ignorance stems from a lack of facilities for obtaining factual information, as well as from indifference on the part of physicians Action now, in the face of awakened interest and awakened sense of responsibility, may go far to correct this indifference

"(*d*) The A M A in consultation with state and Federal representatives and leaders in labor, industry, and business should formulate plans whereby the medically indigent can be subsidized for health insurance"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A. Eggston, of Westchester, is chairman.

a representative of the five county medical societies of Greater New York be appointed to the Committee on Legislation of the Medical Society of the State of New York."

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part IX, of which Dr William B Rawls, of New York, is the chairman

Are there any further resolutions?

Section 38 (*See 113*)

Free Choice of Physicians for Federal Employes

DR. GUY S PHILBRICK, *Niagara* I am submitting the following resolution to the House of Delegates at the request and direction of the Advisory Subcommittee on Workmen's Compensation

"WHEREAS, it is the custom of the U S Employes Compensation Commission to appoint designated surgeons in all localities where a U S Marine Hospital or Veterans Facility is not available for the care and treatment of injured employes, and

"WHEREAS, all injured employes are directed to one of these designated surgeons if injured in line of duty, and

"WHEREAS certain other branches of the Federal government, namely, the Veterans Facility, have recognized the free choice of physician plan in home treatment of veterans, and

"WHEREAS, all injured employes in New York State enjoy this privilege under the New York State Compensation Law, now, therefore, be it

"*Resolved*, that this House direct its delegates to the annual meeting of the American Medical Association to present a resolution requesting that provision be made in the Federal law on workman's compensation that all Federal employes be granted free choice of physician for injuries sustained in line of duty"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part X, Workmen's Compensation, of which Dr A. Wilbur Duryee of New York, is the chairman

Section 39 (*See 157*)

Opposition to Senate Resolution 5 on National Health Insurance and Request for Such Action by the American Medical Association

DR. JAMES GREENOUGH, *Otsego* This resolution is introduced at the request of the Otsego County Medical Society

"WHEREAS, there has been introduced into the Congress of the United States a bill known as *S 5*, whose purpose is to provide a national health insurance and public program, and

"WHEREAS, it is the belief of the members of this Society that the passage of this bill would be to the disadvantage of those needing medical care for the following reasons

"1 The control of medical care by public officials who have had no medical training or experience would inevitably lead to political interference in professional matters and would result in the development of an ineffective and enormously costly Federal bureaucracy

"2 The removal of private practitioners to the category of servants of a bureaucracy has been shown in other countries to result in indiscriminate abuse of the privilege of medical care, with overloading of available facilities so that the patient who needs care may be and

"WHEREAS, it is the belief of this Soc payroll deduction financing will obscure cost of a national health program and the annual budgeting and appropriative of the President and the Congress, and

"WHEREAS, the members of the Society turbed by the inevitable consequences considered health legislation, and

"WHEREAS, the 12-point program adva the American Medical Association, Febru 1949, while commendable, is not a specifi native plan to the proposed bill *S 5*, and

"WHEREAS, it is the right of the public tients to participate in the development of care plans, now, therefore, be it

"*Resolved*, by the members of this Ho Delegates

"1 That they affirm their unanimous sition to *S 5*

"2 That the Delegates of the Medic ciety of the State of New York to the Am Medical Association be instructed to intr a motion at the annual meeting in 1949 c for a conference under the auspices of the A can Medical Association of representativ labor, industry, the farm groups, medical dental practice, education and research, pital, public health, and other interested lay medical groups for the purpose of establis a joint planning commission Such a plan commission should immediately organize direct comprehensive studies for the formulat of a comprehensive detailed plan for preventi and curative medicine for the nation"

SPEAKER ANDRESEN Referred to the Referen Committee on Miscellaneous Business (A), of wh Dr Andrew A Eggston, of Westchester, is chairma

Section 40 (*See 155*)

Suggestion for a More Representative Group of Delegates to the American Medical Association

DR. GEORGE A. BURGIN, *Herkimer* This resolution is very respectfully presented by the County of Herkimer, with deep appreciation of the character and dignity that our delegates to the House of Delegates of the American Medical Association have always had

"WHEREAS, the American Medical Association, of which each county medical society is a primary and integral part, has entered upon a campaign of public education, and

"WHEREAS, a tax has been levied against each individual physician who is a member of his county society for the promotion of this educational program, and

"WHEREAS, the Medical Society of the State o New York is the first echelon in the chain of communication with the American Medical Association and its policy committee, and

"WHEREAS, the Medical Society of the State of New York has been represented by a distinguished group of delegates to the American Medical Association, but the great majority of that group being 'elder statesmen' whose economic situation is probably more or less secure and whose practical and personal relationship to the proposed compulsory health insurance legislation does not have the impact that faces the younger practitioner, now, therefore, be it

tion from the unusual expense of medical emergencies can be provided without compulsion and the paternal interference of government agencies, now, therefore, be it

"*Resolved*, by the House of Delegates of the Medical Society of the State of New York assembled in convention in the city of Buffalo, New York, on this 2nd day of May

"1 That it hereby goes on record against any form of compulsory health insurance or any system of political medicine that is now or hereafter may be introduced before the Congress of the United States,

"2 That a copy of this resolution be forwarded to the President of the United States, to each Senator and Representative from the State of New York, and that said Senators and Representatives be, and are hereby, respectfully requested to use every effort at their command to prevent the enactment of such legislation"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VII, of which Dr Guy S Philbrick is the chairman

Section 47 (See 163, 166)

Redistricting of the District Branches of the Medical Society of the State of New York

DR. CHARLES W MUELLER, *Kings* This resolution is submitted by the Medical Society of the County of Kings and also the Coordinating Council of the five metropolitan county societies of New York

"WHEREAS, the five county medical societies of New York City function through the Coordinating Council for more efficient planning and execution of the duties and responsibilities of said county medical societies, and

"WHEREAS, Greater New York is the only division of New York State in which more than one county is under the local municipal government, and

"WHEREAS, the five county medical societies of New York City have common professional and economic interests different in many respects from those of county societies elsewhere in New York State as evidenced by the following

"1 The Health Department of New York City is directly responsible for the health of the people of the five counties and is not a part of a State Health District

"2 The Department of Welfare of New York City functions in a similar manner and, as of recent date, provides home medical care and many other medical services specifically intended for the residents of New York City only

"3 This City is the only unit in the State wherein public hospitals of more than one county are under the jurisdiction of a single authority, the Commissioner of Hospitals, responsible to the Mayor of New York City

"4. The relationships between the five county medical societies and the aforementioned public hospitals are governed by contacts with the Commissioner of Health, the Commissioner of Hospitals, and the Commissioner of Welfare through the Coordinating Council.

"5 Coordinated professional and economic policies are considered in the function of such city-wide organizations as the Hospital Council of Greater New York and the Hospital Conference of Greater New York, the latter comprising the superintendents of the City's many private hospitals and representatives from their medical boards

"6 Workmen's compensation regulations in four of the five county societies are different from those in effect elsewhere in the State, and

"WHEREAS, professional, economic, and social interests are served most efficiently by an administrative unit created out of consideration of problems common to a community and cognizant of the availability of facilities for readily bringing together all interested parties, now, therefore, be it

"*Resolved*, that the five county medical societies of New York City, for themselves and through the Coordinating Council, request the House of Delegates of the Medical Society of the State of New York, in convention assembled, that in the redistricting of the District Branches of the State Medical Society the five county medical societies of New York City be designated as a District Branch of the Medical Society of the State of New York"

SPEAKER ANDRESEN Referred to the Reference Committee on the Report of the Planning Committee for Medical Policies, of which Dr Thomas M D'Angelo, of Queens, is the chairman

Section 48 (See 153, 160)

Approval of Principles of the Association of American Physicians and Surgeons

DR. THOMAS O GAMBLE, *Albany* Mr Speaker and members of the House of Delegates, I wish to introduce the following resolution

"WHEREAS, bills have been introduced in the Congress of the United States providing for compulsory health insurance, and

"WHEREAS, the great majority of the members of the medical profession feel that such legislation would result in the lowering of medical standards, and

"WHEREAS, the lowering of standards would mean that our patients, whom we are serving to the best of our ability, would suffer, and

"WHEREAS, the House of Delegates of the Medical Society of the State of New York endorses the efforts of our officers, the American Medical Association, and our confreres to inform the public of the dangers of a compulsory health insurance program, and

"WHEREAS, it may be impossible to convince our representatives in Congress that the proposed legislation is dangerous to the public welfare, and

"WHEREAS, the medical profession, while willing to cooperate with all plans which would lead to better care for our patients, refuses to sign any contract which involves compulsion, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York endorses the objectives of the Association of American Physicians and Surgeons, which are as follows

"(*a*) To make available to the people the application of the insurance principle to the costs of major medical emergencies under proper voluntary plans

"(*b*) To educate the people to the use and benefits of voluntary plans of prepayment sickness insurance

"(*c*) To operate an endless public relations program which, first, will correct any errors within the profession, and, then, use every available publicity channel to tell the public what is accomplished in its interest

"(*d*) To conduct a continuing publicity campaign to inform all levels of the public of the

Section 43 (*See 88, 131*)

Remission of Dues for Physicians Leaving to Take Residencies

DR. G S BAKER, *Wyoming* I have been instructed by my county society, Wyoming, to introduce this resolution dealing with the remission of dues for physicians leaving to take residencies

"WHEREAS, several members of the New York State Medical Society have given up their practices to return to teaching institutions for residencies, and

"WHEREAS, these members now have a very limited income and in some instances no income at all, and

"WHEREAS, it is desirable that these doctors continue as members of their county medical societies and the New York State Medical Society, and

"WHEREAS, the continued payment of annual dues constitutes a serious financial burden to these members, be it therefore

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York remit the annual State assessment of members in this category as an encouragement to the undertaking of postgraduate studies, and to relieve these deserving members of the burden of paying dues, this to apply only to those members taking courses of one or more fiscal year's duration"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore, of Tompkins, is chairman.

Section 44 (*See 183*)

Employment of Executive Secretaries of District Branches

DR. STEPHEN R. MONTEITH, *Rockland* This is a personal resolution

"In order more effectively to consolidate the organization of the Medical Society of the State of New York, and particularly to implement the educational campaign in which the Medical Society of the State of New York, together with all other segments of the American Medical Association, is now engaged,

"*Be It Hereby Resolved*, that the Council of the Medical Society of the State of New York be instructed by the House of Delegates to employ an executive secretary for each district branch of the Medical Society of the State of New York, which executive officer shall be an employe of the State Society, directly responsible to the Council"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore, of Tompkins, is chairman

Section 45 (*See 188*)

Blood Banks

DR. JOHN M GALBRAITH, *Nassau* At the meeting of the Nassau County Medical Society, held on April 26, 1949, the following resolution was adopted, with the request that it be presented to the State Society Meeting

"WHEREAS, the routine clinical needs for blood and blood products have been steadily increasing as a result of medical research, and

"WHEREAS, it is occasionally necessary to mobilize large amounts of blood within short periods of time to meet civilian emergencies, and it may be repeatedly necessary to do so in the case of any military emergency, and

"WHEREAS, in many areas of the State facilities are not now adequate to meet these demands, it is hereby

"*Resolved*, that

"1 Each county medical society appoint a committee on blood banks to survey the needs for blood bank service in the county and to be responsible for the medical aspects of all community programs designed to operate existing or expanded services,

"2 In so far as possible, expansion of blood banks be through the strengthening of services provided by approved laboratories in general hospitals and by public health laboratories,

"3 The development of new and the discontinuation of existing facilities be carried out only after a careful evaluation of the needs for such action by all interested agencies including the county medical society and the hospitals in the county,

"4. In any given area the method of blood procurement be determined by agreement among the local agencies concerned, including the county medical society, the local hospitals, the public health laboratory where one exists, the interested voluntary agencies, and, where municipal funds are concerned, the city council or the county board of supervisors, and if the method of voluntary mass donations be agreed upon by such agencies, voluntary agencies such as the American Red Cross be encouraged to assume the responsibility for such procurement programs,

"5 An effort be made jointly by the Medical Society of the State of New York and the State Department of Health to coordinate the activities of blood banks along regional lines so that the procurement of rare blood groups for peacetime needs may be facilitated, and so that large amounts of blood may be readily obtained and adequately transported in case of civilian or military emergency"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of Council, Part IV, of which Dr A. H Aaron, of Buffalo, is chairman.

Section 46 (*See 116*)

Opposition to Imposing Compulsory Health Insurance on American People

DR FLOYD S WINSLOW, *Councilor* This resolution places this House of Delegates formally in opposition to compulsory health insurance

"WHEREAS, there have been introduced in the Congress of the United States bills which would impose compulsory health insurance on the American people for the professed purpose of providing for an extension of medical care and health facilities, and

"WHEREAS, the element of compulsion is contrary to the traditional reliance upon individual initiative and freedom of action that are the bedrock of our system of democracy, and would constitute a sharp departure from our most cherished ideals, and

"WHEREAS, compulsory health insurance would lead to the demoralization of medical service and undoubtedly contribute to a lowering of health standards, the impairment of medical education, and the stifling of research, to which would be added a huge bureaucracy supported by an unprecedented tax burden, and

"WHEREAS, medical care insurance on a voluntary basis already has demonstrated that protec

"WHEREAS, the only means of interpreting the facts concerning the hazards involved in government medicine and the cost thereof to the public is through education, now therefore be it

"*Resolved*, that the Medical Society of the State of New York record at this session its official approval not only of the $25 special assessment of the A.M.A., but also of additional levies if needed in order to carry a dynamic nation-wide program of public education to an effective and successful conclusion"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A. Eggston, of Westchester, is chairman.

Section 52 (*See 107, 161*)

Amendment of Education Law in Relation to the Practice of Psychiatry

DR. IRVING J SANDS, *Kings* Mr Speaker and members, I have the following resolutions from the Kings County Medical Society

"WHEREAS, psychiatry is a medical specialty and any one lacking a bona fide medical degree who attempts to make a mental diagnosis or gives mental advice in return for a fee actually is practicing medicine, and

"WHEREAS, no matter how well qualified individuals may be in clinical psychology or in psychiatric social work, such individuals, even though they may be licensed or certified in such specific fields, unless they also be psychiatrists, can and do perpetrate immeasurable harm upon unknowing and trusting patients, and

"WHEREAS, the Attorney General of the State of New York in or before 1945 did render an opinion to the effect that 'suggestive therapeutics (hypnosis) is within the meaning of the term "practice of medicine" and its practice is therefore forbidden except by a duly licensed physician or surgeon', and

"WHEREAS, the public too often considers listings in classified telephone directories of psychologists, whether licensed or unlicensed, institutes purporting to teach and/or practice what is described as metaphysics, psychologic guidance, psychotherapy, psychoanalysis, and hypnosis as bona fide evidence of some measure of approval, thereby leaving the door wide open for all manner of quasiqualified charlatanism, and

"WHEREAS, the Medical Practice Act does not specifically include mental and nervous diseases as diseases within the meaning of the law, and

"WHEREAS, as long as psychologists and psychiatric social workers claim only to be giving advice, counsel or guidance, they may, as matters now stand, avoid prosecution for practicing medicine, and

"WHEREAS, Paragraph 4, Section 6501 of the Education Law states 'The practice of medicine is defined as follows A person practices medicine within the meaning of this article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate or prescribe for any human disease, pain, injury, deformity, or physical condition', and

"WHEREAS, the State Department of Education through one of its authorized representatives expressed the belief 'that a psychologist should not hold himself out as being able to diagnose or treat any physical condition, which includes mental conditions, according to (that official's) interpretation of the opinion of the Attorney General of New York', now, therefore, be it

"*Resolved*, that the Legislature be requested to protect the public interest further by strengthening the Education Law, accomplishing this by specifically including mental and nervous diseases within the meaning of the law and specifically forbidding psychologists and/or psychiatric workers from practicing medicine, and be it further

"*Resolved*, that the Medical Society of the State of New York actively work for the passage of this legislation"

SPEAKER ANDRESEN Referred to Reference Committee on Report of Council, Part IX, of which Dr William B Rawls, of New York, is chairman Dr Lochner was here of the State Board of Medical Examiners I would suggest that, if possible, Dr Rawls get him to attend his committee meeting It would be well to discuss that matter with him.

Section 53 (*See 98*)

General Practitioners and the Visiting Staffs of General Hospitals

DR. IRVING J SANDS, *Kings* The second resolution reads

"WHEREAS, the general practitioners of medicine have played a dominant role in treating the sick of our country and in maintaining the high level of health of our nation, and

"WHEREAS, the general medical practitioners must constantly keep in touch with the various newer contributions made to the treatment of the sick, and

"WHEREAS, the general medical practitioner needs a hospital to which to send his patients and to acquire skill and experience in the institution of the newer methods of diagnosis and treatment, and

"WHEREAS, certain general hospitals have accepted the plan of limiting membership of their visiting staffs only to specialists in various branches of medicine, be it hereby

"*Resolved*, that it is the consensus of opinion of the House of Delegates of the Medical Society of the State of New York that at least thirty per cent of the members of the visiting staffs to the general hospitals should be comprised of general practitioners of medicine"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VI, of which Dr Thomas O Gamble, of Albany, is chairman

Section 54 (*See 141, 184*)

Medical Officers for the Armed Forces of the United States

DR. IRVING J SANDS, *Kings* This is the third and last resolution I have to introduce

"WHEREAS, there is a critical shortage of medical officers in the armed forces, and

"WHEREAS, the Secretary of Defense has appealed to medical schools, state and county medical societies, and to the various hospitals, to encourage interns and younger practitioners of medicine to enlist in the armed forces, and

"WHEREAS, the response on the part of the younger medical men has been practically negligible, be it, therefore

value of private practice of medicine and the evils of compulsory health insurance and state or socialized medicine

"(*e*) To earn again the respect for and the understanding of the medical profession by the nation's lawmakers through proper, effective representation in Washington

"(*f*) To effect increasing support of the American Medical Association so that this scientific body may continue to improve upon its contributions to public health and the science of medicine

"(*g*) To organize physicians to agree to participate only in such methods of rendering medical services which are in the public interest Any action of the Association of American Physicians and Surgeons on this is not a proposed strike against the sick public AAPS members will always continue to serve their patients, just as they do now, and have always done in the past, but they avail themselves of their constitutional American right to refuse to do so as serfs of a political medicine bureaucracy

And be it further

"*Resolved*, that the principle of nonparticipation will not be invoked until every available method of blocking the passage of compulsory health legislation has been exhausted, and be it further

Resolved, that nonparticipation will not be invoked until a poll taken of the membership of this Society shows that clear majority favors this principle, and be it further

"*Resolved*, that the secretary of this Society be instructed to notify the presidents and secretaries of our county societies, the president and secretary of the American Medical Association, and the president and secretary of the Association of American Physicians and Surgeons of the adoption of this resolution"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A. Eggston, of Westchester, is the chairman

Section 49 (*See 94, 144*)

Complaint Against the Welfare Department of Nassau County

DR. E K. HORTON, *Nassau* This is a "quickie" from Nassau County

"WHEREAS, Nassau County Welfare Department is governed by a policy of the New York State Department of Social Welfare which states that all fees for medical care, rendered patients under their jurisdiction, are included in their regular monthly allowances, and

"WHEREAS, on numerous occasions the part of the allowance for medical care has been withheld from the physicians who supplied the services, and

"WHEREAS, the situation is becoming worse, and many physicians are not being paid for services rendered at fees lower than their regular fee, therefore be it

"*Resolved*, that the delegates of the Nassau County Medical Society request the Medical Society of the State of New York to take action in this matter on a State level, to bring about the necessary changes in policy so that physicians supplying medical care to patients under the jurisdiction of the Nassau County Welfare Department shall be paid directly or the checks drawn so that it will be necessary for patient and physician both to endorse them for cashing purposes, and that the white slip included with the check shall state the month in which the services were rendered."

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VI, of which Dr Thomas O Gamble, of Albany, is chairman

Section 50 (*See 118*)

Voluntary Sickness and Hospital Insurance

DR. C J C PARSONS, *Westchester*

"WHEREAS, in discussing compulsory versus voluntary sickness and hospital insurance with lay audiences the most frequent criticism of the voluntary plans is their lack of comprehensiveness, and

"WHEREAS, the rapid growth of voluntary prepaid medical care insurance is one of the strongest arguments against compulsory insurance, and

"WHEREAS, we believe the voluntary plans must be broadened to include preventive medical and diagnostic services if we are to meet the needs of the people, now therefore be it

"*Resolved*, that the Medical Society of the State of New York urge the Blue Cross and Blue Shield to devise plans, as rapidly as possible, in keeping with good medical practice and actuarial soundness, whereby comprehensive medical and hospital coverage including preventive medicine and diagnostic procedures might be offered to the public and particularly to the low income segment thereof"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part VII, of which Dr Guy S Philbrick, of Niagara, is chairman

Section 51 (*See 149*)

The American Medical Association Assessment

DR. REID R HEFFNER, *Westchester* Mr Speaker and delegates, this is a resolution from the Westchester County Medical Society

"WHEREAS, the President of the United States representatives of the Federal Security Agency and certain senators and representatives are using all possible means to achieve the enactment of some form of legislation which will include a program of compulsory health insurance, and

"WHEREAS, we believe the promoters of this legislation are men not qualified to evaluate health needs nor methods of providing health services but are influenced by political pressure from organized groups that are interested in 'free medical care' and socialistic trends in government, and

"WHEREAS, it is universally conceded that we have the best medical care in the world and the best medical schools, research centers, hospitals and public health systems, and

"WHEREAS, compulsory health insurance leads inevitably to a deterioration in the quality of medical care, to greatly increased over-all costs in providing medical care, and eventually to a complete socialistic economy, and

"WHEREAS, the practicing physicians of the United States who are best qualified to evaluate health needs and methods of providing medical care are overwhelmingly opposed to any system of compulsory health insurance, e g, in Westchester County, on the basis of replies to a questionnaire sent to the 1,100 physicians in the county 95 per cent indicated unalterable opposition, and

nosis, x-ray therapy or radium therapy, as defined in subdivision seven of Section sixty-five hundred and one of this chapter by any person other than a person licensed under the provisions of this article, or article one hundred thirty-three or article one hundred forty-one of this chapter, subject to the conditions and limitations of his license, or a person, firm, association, or corporation who or which has been engaged in such practice for a period of five or more years continuously prior to July first, nineteen hundred fifty, and no such person, firm, association, or corporation shall change its name or sell its franchise or transfer its corporate rights directly or indirectly by transfer, capital stock control, or otherwise to any other person, firm, association, or corporation without permission from the Board of Regents. Any such person, firm, association, or corporation so changing its name or so transferring its franchise or corporate right without such permission shall be deemed to have forfeited its rights to exist and may be dissolved by an action brought by the Attorney General, and any such corporation shall be convicted of a violation of this section and shall forfeit its privileges and rights under this subdivision

"This act shall take effect July 1, 1951"

I move this resolution

SPEAKER ANDRESEN No, that will be referred to a reference committee for study and report back to this House later It will be referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A Eggston, of Westchester, is chairman.

Section 59 (*See 157*)

Suggested Educational Device

DR. HENRY E MCGARVEY, *Westchester* This resolution is presented by the Medical Society of the County of Westchester, and it reads

"WHEREAS, the poster reproduction of Sir Luke Filde's painting called 'The Doctor,' with appropriate information beneath the picture, seems to be an effective means of bringing pertinent information to the public, and

"WHEREAS, the effectiveness of this device will depend largely upon the extent of distribution obtained, now therefore be it

"*Resolved*, that the Medical Society of the State of New York recommend to the American Medical Association and the National Education Campaign Headquarters that a stamp-type reproduction of this picture be made in color with a simple subtitle such as, 'To Keep Politics Out of This Picture, Oppose Compulsory Health Insurance!', this stamp to be printed in such volume that quantities can be sent to every physician in the United States to be affixed to all bills and other mail from his office, large quantities also to be sent to state and county societies with administrative offices to be affixed to all mail sent to the general public, and be it further

"*Resolved*, that at least two copies of this poster be sent to every pharmacy in the United States for display together with quantities of appropriate literature, and be it further

"*Resolved*, that suitable cuts or mats be prepared in various sizes to facilitate the reproduction of this poster on the cover of medical journals and other publications, such as industrial house organs, women's club magazines, and the like, and be it further

"*Resolved*, that arrangements be made, if possible, to have it run at frequent intervals as a free or paid slide on the various television networks and in motion picture theaters"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council Part XI, of which Dr Eugene H Coon, of Nassau, is chairman

Section 60 (*See 155*)

Compulsory Health Insurance

DR. THEODORE R PROPER, *Orange* Mr Speaker and members of the House of Delegates, I have two resolutions which were passed by the Orange County Medical Society at its stated meeting on April 19, 1949

"WHEREAS, there have been introduced into the Congress of the United States bills known as *S 5*, *S 1679*, *H R 783* and *H R 345*, whose purpose is to provide a national health insurance and public health program, and

"WHEREAS, these measures would institute a system of compulsory health insurance and compel the imposition of an additional payroll tax to finance them, thus causing a hardship to the average wage earner, and

"WHEREAS, the compulsory health insurance would impair the relationship between doctor and patient, and lead to the control of American medicine by an enormous bureaucracy, and

"WHEREAS, our country is in an enviable position, recognized as the mecca of medical education, producing and developing the best doctors on earth, and

"WHEREAS, it is probable that any change in our system of dispensing medical care will lead to a deterioration in our medical standards and medical proficiency, and

"WHEREAS the 12-point program advanced by the A.M.A., February 12, 1949, offers an excellent alternative plan to the proposed bill *S 5* and similar measures advocating compulsory health insurance, and

"WHEREAS, the present voluntary health insurance plans throughout the nation have met with amazing success in a very short period of time, now, therefore, be it

"*Resolved* by the Orange County Medical Society

"1 That the members of the Orange County Medical Society affirm their unanimous opposition to *S 5* and similar measures advocating compulsory health insurance

"2 That the President of the United States be urged to consult with the A.M.A. as the representative of the medical profession of the United States to formulate a comprehensive plan for preventive and curative medicine for the nation

"3 That copies of this resolution be transmitted to the President of the United States, the Senators of New York, the Representative in Congress from the Twenty-Ninth Congressional District of New York, the American Medical Association, the Medical Society of the State of New York and the county medical societies of the State of New York.

"4. That this resolution be introduced by the delegates of the Orange County Medical Society in the House of Delegates of the Medical Society of the State of New York at the next annual meeting, May 2, 1949"

SPEAKER ANDRESEN That is referred to the Ref-

"*Resolved*, that it is the consensus of opinion of the House of Delegates of the Medical Society of the State of New York that residencies in the various specialties and assistantships to the visiting staffs of the various hospitals be given only to those young physicians who have given at least two years of active service in the armed forces of the country, and be it further

"*Resolved*, that a copy of these resolutions be sent to the medical superintendent of every hospital in the State of New York and to the president of the board of directors or trustees of such institutions"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part I, of which Dr Scott Lord Smith, of Dutchess, is chairman

Section 55 (*See 112*)

Radiology Workmen's Compensation Fees

DR. CHARLES MUZZICATO, *New York* This resolution has for its purpose the raising of the workmen's compensation fees for radiologists

"WHEREAS, increases were granted under the recent minimum fee schedule of Workmen's Compensation for all other specialties, and

"WHEREAS, the radiology schedule has remained the same since 1938, and

"WHEREAS, the cost of operation of an x-ray specialist's office has increased over 75 per cent, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York take all the necessary steps to recommend at least a 30 per cent increase in every item in the fee schedule pertaining to x-ray, and be it further

"*Resolved*, that a letter regarding the raising of fees paid to radiologists be sent to the chairman of the Workmen's Compensation Board of the State of New York"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of Council, Part X, Dr A Wilbur Duryee, of New York, chairman

Section 56 (*See 164*)

Practice of Medicine by Medical Colleges and Universities

DR. ALFRED ANGRIST, *Queens* I have just two short resolutions They are being introduced by Dr D'Angelo and myself

"WHEREAS, the Medical Society of the State of New York has gone on record on several occasions as being opposed to the practice of medicine for profit by medical schools and hospitals, and

"WHEREAS, the faculties of several medical schools are of the opinion that the medical education of the student is not complete unless he has had some experience in giving patients comprehensive medical care, and

"WHEREAS, these medical schools have formed or are considering forming medical groups to provide comprehensive medical care to prepaid voluntary medical expense insurance groups and other persons in the middle income brackets, be it therefore

"*Resolved*, that the Medical Society of the State of New York through its Council or proper committee invite representatives of the medical schools of this State to discuss this problem and arrive at a solution satisfactory to both parties."

Section 57 (*See 164*)

Practice of Medicine by Hospitals

DR. ALFRED ANGRIST, *Queens*

"WHEREAS, the Medical Society of the State of New York has gone on record on several occasions as being opposed to the practice of medicine for profit by medical schools and hospitals, and

"WHEREAS, medical schools and hospitals have formed or are considering forming medical groups to provide comprehensive medical care on a fee for service basis and to prepaid voluntary medical expense insurance groups and other persons in the middle income brackets, be it therefore

"*Resolved*, that the Medical Society of the State of New York through its Council or proper committee invite representatives of the official hospital associations of this State to discuss this problem and arrive at a solution satisfactory to both parties"

SPEAKER ANDRESEN I am going to refer that to the Reference Committee on Report of the Council Part I, of which Dr Scott Lord Smith, of Dutchess is chairman—the both of them.

DR. THOMAS M D'ANGELO, *Queens* May I say that those matters are in Dr Kenney's report, and I think it would be wise to refer them to the committee that is considering that report.

SPEAKER ANDRESEN Thank you! We will refer them to the Reference Committee on Report of the Planning Committee for Medical Policies, of which Dr Thomas M D'Angelo, of Queens, is the chairman

Section 58 (*See 151*)

X-Ray Treatment and Radium Treatment

DR. MORRIS WEINTROB, *Kings*

"WHEREAS, an x-ray bill failed of passage at the recent session of the State Legislature, the Medical Society of the County of Kings recommends to the House of Delegates the reintroduction of such a measure and proposes its form to be as follows

An ACT To amend the Education Law, in relation to the practice of x-ray diagnosis, x ray treatment and radium treatment

The People of the State of New York, represented in Senate and Assembly, do enact as follows

Section 1 Section sixty-five hundred one of the Education Law is hereby amended by adding thereto a new subdivision, to be subdivision seven to read as follows

7 X-ray diagnosis means that method of medical practice in which demonstration and examination of the normal and abnormal structures, parts or functions of the human body are made by use of x-rays, and any person who holds himself out to diagnose or able to make or makes any interpretation or explanation by word of mouth, writing, or otherwise of the meaning of a fluoroscopic or registered shadow or shadows of any part of the human body made by the use of x-rays, and also the use of x-rays or radium for the treatment of any human ailment shall be deemed to be engaged in the practice of medicine within the meaning of this article

Section sixty-five hundred twelve of such law is hereby amended by adding a new subdivision, to be subdivision five, to read as follows

5 The provisions of this article shall be deemed to prohibit the practice of x-ray diag-

nosis, x-ray therapy or radium therapy, as defined in subdivision seven of Section sixty-five hundred and one of this chapter by any person other than a person licensed under the provisions of this article, or article one hundred thirty-three or article one hundred forty-one of this chapter, subject to the conditions and limitations of his license, or a person, firm, association, or corporation who or which has been engaged in such practice for a period of five or more years continuously prior to July first, nineteen hundred fifty, and no such person, firm, association, or corporation shall change its name or sell its franchise or transfer its corporate rights directly or indirectly by transfer, capital stock control, or otherwise to any other person, firm, association, or corporation without permission from the Board of Regents. Any such person, firm, association, or corporation so changing its name or so transferring its franchise or corporate right without such permission shall be deemed to have forfeited its rights to exist and may be dissolved by an action brought by the Attorney General, and any such corporation shall be convicted of a violation of this section and shall forfeit its privileges and rights under this subdivision

"This act shall take effect July 1, 1951"

I move this resolution

SPEAKER ANDRESEN No, that will be referred to reference committee for study and report back to this House later It will be referred to the Reference Committee on Miscellaneous Business (A), of which Dr Andrew A Eggston, of Westchester, is chairman.

Section 59 (*See 137*)

Suggested Educational Device

DR. HENRY E. MCGARVEY, *Westchester* This resolution is presented by the Medical Society of the County of Westchester, and it reads

"WHEREAS, the poster reproduction of Sir Luke Filde's painting called 'The Doctor,' with appropriate information beneath the picture, seems to be an effective means of bringing pertinent information to the public, and

"WHEREAS, the effectiveness of this device will depend largely upon the extent of distribution obtained, now therefore be it

"*Resolved*, that the Medical Society of the State of New York recommend to the American Medical Association and the National Education Campaign Headquarters that a stamp-type reproduction of this picture be made in color with a simple subtitle such as, 'To Keep Politics Out of This Picture, Oppose Compulsory Health Insurance!', this stamp to be printed in such volume that quantities can be sent to every physician in the United States to be affixed to all bills and other mail from his office, large quantities also to be sent to state and county societies with administrative offices to be affixed to all mail sent to the general public, and be it further

"*Resolved*, that at least two copies of this poster be sent to every pharmacy in the United States for display together with quantities of appropriate literature, and be it further

"*Resolved*, that suitable cuts or mats be prepared in various sizes to facilitate the reproduction of this poster on the cover of medical journals and other publications, such as industrial house organs, women's club magazines, and the like, and be it further

"*Resolved*, that arrangements be made, if possible, to have it run at frequent intervals as a free or paid slide on the various television networks and in motion picture theaters"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council Part XI, of which Dr Eugene H Coon, of Nassau, is chairman

Section 60 (*See 158*)

Compulsory Health Insurance

DR. THEODORE R PROPER, *Orange* Mr Speaker and members of the House of Delegates, I have two resolutions which were passed by the Orange County Medical Society at its stated meeting on April 19, 1949

"WHEREAS, there have been introduced into the Congress of the United States bills known as *S 5*, *S 1679*, *H R 783* and *H R 845*, whose purpose is to provide a national health insurance and public health program, and

"WHEREAS, these measures would institute a system of compulsory health insurance and compel the imposition of an additional payroll tax to finance them, thus causing a hardship to the average wage earner, and

"WHEREAS, the compulsory health insurance would impair the relationship between doctor and patient, and lead to the control of American medicine by an enormous bureaucracy, and

"WHEREAS, our country is in an enviable position, recognized as the mecca of medical education, producing and developing the best doctors on earth, and

"WHEREAS, it is probable that any change in our system of dispensing medical care will lead to a deterioration in our medical standards and medical proficiency, and

"WHEREAS, the 12-point program advanced by the A M A., February 12, 1949, offers an excellent alternative plan to the proposed bill *S 5* and similar measures advocating compulsory health insurance, and

"WHEREAS, the present voluntary health insurance plans throughout the nation have met with amazing success in a very short period of time, now, therefore, be it

"*Resolved* by the Orange County Medical Society

"1 That the members of the Orange County Medical Society affirm their unanimous opposition to *S 5* and similar measures advocating compulsory health insurance

"2 That the President of the United States be urged to consult with the A M A. as the representative of the medical profession of the United States to formulate a comprehensive plan for preventive and curative medicine for the nation

"3 That copies of this resolution be transmitted to the President of the United States, the Senators of New York, the Representative in Congress from the Twenty-Ninth Congressional District of New York, the American Medical Association, the Medical Society of the State of New York and the county medical societies of the State of New York

"4. That this resolution be introduced by the delegates of the Orange County Medical Society in the House of Delegates of the Medical Society of the State of New York at the next annual meeting, May 2, 1949"

SPEAKER ANDRESEN That is referred to the Ref-

erence Committee on Miscellaneous Business (A), of which Dr Andrew A. Eggston, of Westchester, is chairman.

Section 61 (*See 87*)

Location Bureau for Proper Distribution of Medical Personnel

DR. THEODORE R. PROPER, *Orange*

"WHEREAS, organized medicine has been accused of being reactionary in its attitude toward changes in medicoeconomics, and

"WHEREAS, the medical practitioners who are most receptive to the socializers are those who have been unsuccessful in practice, or recent graduates who cannot find a suitable location for practice, and

"WHEREAS, many of the recent graduates who have had excellent postgraduate training in the general practice of medicine and in the specialties cannot find suitable locations for private practice, and

"WHEREAS, many of the recent graduates who seek advice from the established older physicians receive the usual unfriendly replies, 'Look elsewhere, overcrowded here'—'Go West, young man,' etc , and

"WHEREAS, it is high time that organized medicine realize that it can do a great service to communities that have an insufficient number of doctors, and a similar service to young doctors who go begging for advice regarding such understaffed communities, therefore be it

"*Resolved*

"1 That our State Society add to its various departments and functions a bureau for location.

"2 That proper use be made, toward this purpose, of our State JOURNAL to permit free notices from doctors seeking locations, doctors seeking assistants, and communities anywhere in the United States and its possessions offering satisfactory prospects for medical practice

"3 That our delegates to the State convention in May, 1949, be instructed to present this resolution and urge its adoption in principle at least, leaving the details to the governing Council's better judgment"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore, of Tompkins, is the chairman.

Section 62 (*See 81*)

Displaced Physicians

DR. SAMUEL Z FREEDMAN, *New York* This resolution is being presented on behalf of Dr Harold B Davidson, who could not be here today

"WHEREAS, there is at present a large group of physicians who, with their countrymen, have been rendered homeless and are now living as displaced persons in care of the international refugee organization in Western Germany and elsewhere, therefore be it

"*Resolved*, that the delegates from the Medical Society of the State of New York to the House of Delegates of the American Medical Association be instructed to introduce the following resolution

"*Resolved*, that a committee be appointed to study the problem of displaced physicians in cooperation with the Displaced Persons Commission, the various State authorities and with the international refugee organization."

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part V, of which Dr Harry V Spaulding is chairman

Section 63 (*See 85*)

Bed Facilities in Municipal and Voluntary Hospitals

DR. THOMAS F MCCARTHY, *Bronx* This resolution is introduced by myself personally

"WHEREAS, any increase in hospital bed capacity, either through the construction of new hospitals or extension of existing facilities, will be largely through the allocation of governmental funds, Federal or state, and

"WHEREAS, rapid expansion of voluntary hospitals and medical insurance plans may be anticipated in the immediate future, and

"WHEREAS, such expansion will multiply the number of patients that will require semiprivate and private hospital beds, and

"WHEREAS, such accommodations are proportionately small in voluntary hospitals and totally lacking in governmental hospitals, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York request the Council through its appropriate committee to present these pertinent facts to the proper authorities concerned with hospital planning, and be it further

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York request the Council to take whatever action it may consider feasible in the correction of present restrictive regulations in voluntary and municipal hospitals"

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore, of Tompkins, is chairman.

Section 64

National Physicians Committee

DR FREDERICK A. WURZBACH, JR., *Bronx* Mr Speaker, it had been the intention of the Bronx County delegation to present on behalf of Bronx County a resolution requesting the American Medical Association to repudiate the action of the National Physicians Committee in respect to the Dan Gilbert letter It wishes to have recorded in the minutes of this body that such a resolution was unanimously passed at one of the regular meetings of the Bronx County Society before the repudiation by the American Medical Association and the disbanding of the National Physicians Committee

SPEAKER ANDRESEN This is presented simply for information and will not be referred to a reference committee

Section 65 (*See 109*)

Legislation—Larger Committee, News Releases

DR. AARON KOTTLER, *Kings* I have been requested by the Kings County Medical Society to present the following resolution

"WHEREAS, practically every bill introduced at the State Legislature during the past few years seeking to better the professional and economic status of medicine has failed to become a law, while bills introduced by nonmedical ancillary groups have been more successful, thereby further encroaching on the practice of medicine and further limiting its frontiers, and

"WHEREAS, most of the bills that concerned

practice of medicine introduced at the State Legislature during the past few years have been of greater vital significance to practitioners of medicine in the five counties of Greater New York, and

"WHEREAS, the Legislative Committee of the Coordinating Council of the five county medical societies of Greater New York is disturbed by medicine's failure to receive more favorable and deserved support from our State legislators in medicine's efforts to provide the citizens of our State with better medical protection, therefore be it

"*Resolved*, that the Council of the Medical Society of the State of New York be instructed to increase the number on the Legislative Committee which should be geographically distributed throughout the State, and be it further

"*Resolved*, that adequate provision for more effective efforts in the highly necessary practical field of close contact with our legislators be provided for, and be it further

"*Resolved*, that they make available to our State legislators 'to-the-point' brief monthly news releases of dynamic, pictorial, and verbal descriptive value which will serve to keep our legislators constantly and effectively informed of the cogent reasons underlying medicine's requests for the various bills in which it is concerned from the viewpoint of the public interest and that of the practitioners of medicine who serve them."

SPEAKER ANDRESEN Referred to the Reference Committee on Miscellaneous Business (B), of which Dr Norman S Moore, of Tompkins, is the chairman.

Section 66 (*See 164*)

Regulate the Practice of Medicine by Private Nonprofit Hospitals

DR AARON KOTTLER, *Kings* This is a resolution which is similar to one introduced the earlier part of the session in relation to the practice of medicine by private nonprofit hospitals It is a little different, and there are a couple of changes introduced in it as now presented The resolution has the approval of the Kings County Medical Society and has also been considered and approved by the Legislative Committee of the Coordinating Council of the five metropolitan New York county societies

"WHEREAS, the rendering of medical services and the application of the principles of the art and science of medical practice must remain in the hands of qualified physicians practicing individually or in groups, and

"WHEREAS, no government or other agency should be permitted either to control or to render private medical care or services, and

"WHEREAS, the practice of medicine embraces services performed by general practitioners, radiologists, pathologists, anesthesiologists, and other specialists as internists, surgeons, and the like, and

"WHEREAS, hospitals are now engaging in the provision of the services of such specialists without regard to their standing as specialists in the practice of medicine, and

"WHEREAS, in addition to the services of these specialists, hospitals are increasingly active in employing full time specialists in other categories, and the providing of services of these specialists to the public and charging and collecting fees for such services rendered, and

"WHEREAS, the division of fees by individuals and groups with hospitals is forbidden by the accepted codes of medical ethics and by the provisions of the Education Law of the State of New York, now, therefore be it

"*Resolved*, that such activities on the part of hospitals are herewith construed as being in violation of regulations governing the practice of medicine and are therefore condemned, be it further

"*Resolved*, that the Council be instructed to take immediate action under existing legal and ethical codes, to stop these activities by hospitals, and be it further

"*Resolved*, that the Council be instructed to sponsor and support the reintroduction of the Friedman Bill (*Senate Introductory 2402*), which was passed by the State Senate at the last session of the Legislature and which would legally forbid hospitals from carrying on the practices described in this resolution"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Planning Committee for Medical Policies, of which Dr Thomas M D'Angelo, of Queens, is the chairman.

Section 67 (*See 111*)

Physical Medicine—Increase of Fees for Workmen's Compensation Cases

DR. MADGE C L. MCGUINNESS, *New York*

"WHEREAS, increases were granted under the recent fee schedule of Workmen's Compensation for all other specialties, and

"WHEREAS, the fees paid for physical medicine have remained the same, and

"WHEREAS, the costs of office equipment and maintenance have increased greatly in the specialty of physical medicine, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York take all the necessary steps to recommend a substantial increase in every item in the compensation fee schedule pertaining to physical medicine, and be it further

"*Resolved*, that a letter regarding the raising of fees for physical medicine be sent to the chairman of the Workmen's Compensation Board of the State of New York"

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part X, of which Dr A. Wilbur Duryee, of New York, is chairman

Section 68

Notice of Intention to Amend Article V of the Constitution and Chapters III and VII of the Bylaws

DR. JAMES R. REULING, *Treasurer* This is a notice by me, as an individual, of an intention to propose a change in the Constitution and Bylaws

Article V of the Constitution has to do with Officers. After the first sentence, add to the end of the first sentence of Article V, "and the Editor of NEW YORK STATE JOURNAL OF MEDICINE"

I propose changes in the Bylaws as follows

(1) Add to Chapter III, Section 1, which has to do with the election of officers, at the end of the first sentence " annual meeting of the House of Delegates except that the Editor of NEW YORK STATE JOURNAL OF MEDICINE shall be elected by the Council at its first meeting after the close of the annual meeting of the House of Delegates"

(2) Add a new section to Chapter VII of the Bylaws to become a new Section 11, defining the duties of the Editor

Mr Speaker, these have to lie on the table and have to be published thirty days in advance of the next annual meeting

SPEAKER ANDRESEN This is accepted as a motion that these amendments to the Constitution and Bylaws will be presented at the next annual meeting There is no action we have to take on them today

Are there any further resolutions?

Section 69 (*See 86*)

Amend Education Law in Relation to the Practice of Anesthesia

DR. NATHAN BRODY, *Kings* Mr Speaker and members of the House, this is a resolution from the Kings County Medical Society

"WHEREAS, anesthesiology is the study and practice of the art and science of anesthesia in all its forms and all that pertains thereto, and

"WHEREAS, anesthesiology is an integral part of the practice of medicine according to the American Medical Association, the American Hospital Association, and the American College of Surgeons and other scientific and lay organizations, and

"WHEREAS, an anesthesiologist is a physician fully qualified to practice anesthesiology, and

"WHEREAS, an anesthetist is any person who administers an anesthetic, and such person may be a layman, podiatrist, nurse, dentist, veterinarian, or physician performing a technical procedure, and

"WHEREAS, inhalation therapies, nerve blocks, and fluid therapies are special branches of anesthesiology, and

"WHEREAS, the standards of anesthesiology as set forth by the American Board and American College of Anesthesiology include the following requirements for eligibility to take the examinations leading to certification

(*a*) Graduation from a medical school approved by the American Medical Association

(*b*) License to practice medicine in the state of practice

(*c*) Good standing in the local county medical society

(*d*) Five years limited to anesthesiology of which two years must be in an approved residency in the specialty,

and

"WHEREAS, anesthesiology has progressed to the point where a thorough knowledge of the basic sciences and clinical training in all the branches of medicine has become essential for the background to the study of anesthesiology, and

"WHEREAS, existing confusion in the legal status of anesthesiology in the minds of the medical, hospital, and lay public in the recent opinion from the office of the Attorney General as to whether anesthesiology is medical practice or hospital practice, and

"WHEREAS, this results in misunderstandings and hardships in many instances where hospitals and medical insurance plans are involved in which the physician may be unable to obtain proper remuneration, now therefore be it

"*Resolved*, that anesthesiology be recognized as the practice of medicine, with the following exceptions

(*a*) Dentists be permitted to administer

(*b*) Podiatrists be limited to the use of oc local anesthetics in podiatry

(*c*) Nurse anesthetists who have been a ministering anesthesia prior to the enactment this law be permitted to so continue.

(*d*) To permit the present schools teachi anesthesia to nurses to complete their course instruction to their present enrolment,

and be it further

"*Resolved*, that we request legislation be int duced in the 1950 session of the New York St Legislature establishing anesthesiology as t practice of medicine, and be it further

"*Resolved*, that the Medical Society of the St of New York actively work for the passage of s a law"

SPEAKER ANDRESEN Referred to the Referen Committee on Miscellaneous Business (B), of wh Dr Norman S Moore, of Tompkins, is chairman

Section 70 (*See 79*)

Expression of Approval of Services of Dr George Kosmak, Editor of the NEW YORK STATE JOURN OF MEDICINE

DR. FLOYD S WINSLOW, *Councilor* This reso tion has to do with the Editor of the JOURNAL, an respectfully request the complete attention of ev person in the room during the reading of this reso tion

"WHEREAS, Dr George W Kosmak having many years toiled unceasingly to advance the b interests of the Medical Society of the State New York, as Treasurer in 1937, as Trustee fr 1944 through 1946, as chairman of the Commit on Office Management and Policies in 1942, Trustee member of the Publication Committee 1945 and 1946, and as Managing Editor of NEW YORK STATE JOURNAL OF MEDICINE si October, 1945, at which time he also beca chairman of the Publication Committee,

"WHEREAS, under his able and farsigh leadership the publications of the Society, JOURNAL and the *Directory*, have notably proved in appearance, content, typography, advertising, an effective associate editorial bo has been added to the JOURNAL and the num and quality of the yearly published scient papers has been increased due to his careful edit and vast correspondence with authors, now th fore be it

"*Resolved*, that the Medical Society of State of New York hereby expresses to Dr Geo W Kosmak its hearty appreciation of his untir constructive, and productive thought and ef in the conduct of its publications"

(*Applause*)

The delegates arose and applauded

SPEAKER ANDRESEN That subject was also ferred to in the President's Supplementary Rep given this morning, and I have already referred t to the Reference Committee on Report of the Pr dent, so I believe I will refer this to the same erence committee

DR. W GUERNSEY FREY, *Queens* Is it necessa to refer this to any reference committee? Could not be acted upon here and now? I move its mediate adoption.

SPEAKER ANDRESEN We have to consider president's report on this subject as well, and I thi it would be well to have them come together though we all feel as you do, I think it would be w to have it come up separately

Section 71 (*See 108*)

Injunctive Relief Procedure

DR. MAURICE J DATTELBAUM, *Kings* A committee was appointed last year to do something about the cults, and the decision was made that the injunction bill should be introduced to curb them, but it failed to pass

"WHEREAS, a bill to amend Section 6513 of the Education Law of the State of New York in relation to authorizing the Attorney General to apply for relief by injunction to restrain the commission of any act which is illegal under Article One Hundred Thirty-One of such law, was introduced in the 1949 legislature of the State of New York, and was not passed, therefore be it

"*Resolved*, that the Medical Society of the State of New York request the reintroduction of *Senate Int 94* of 1949 to the 1950 Legislature of the State of New York, and be it further

"*Resolved*, that the Medical Society of the State of New York actively work for the passage of this *bill*."

SPEAKER ANDRESEN Referred to the Reference Committee on Report of the Council, Part IX, of which Dr William B Rawls, of New York, is chairman.

Section 72 (*See 106, 181, 193*)

Basic Science Law

DR. CHARLES GULLO, *Livingston* This resolution follows the line of thought of Dr Dattelbaum in regard to the failure we encountered in Albany at the last session of the Legislature to pass the injunctive relief measure, only our approach is different

"WHEREAS the injunctive procedure for the control of illegal practice failed of being enacted at the last session of the Legislature, and

"WHEREAS, illegal practice in New York State constitues a serious menace to public health, be it

"*Resolved*, that the House of Delegates of the New York State Medical Society approve that through its appropriate committee it have introduced a bill at the next session of the New York Legislature which will incorporate the principle of the basic science law, namely, that anyone who holds himself qualified to treat the sick must show that he is adequately informed in those sciences which are basic in all schools of practice of the healing art This applies whether the law provides for licensure or not, unless he is expressly exempted."

SPEAKER ANDRESEN That is referred to the same committee, the Reference Committee on Report of the Council, Part IX, Legislation, of which Dr William B Rawls, of New York, is chairman

Are there any further resolutions?

There was no response

SPEAKER ANDRESEN If there are no more, we have had fifty resolutions this morning I wish to stress once more the importance of having complete and frank discussions this afternoon at the meetings of the reference committees

Tomorrow morning we are going to call upon the reference committees immediately

There will now be a meeting immediately following of the chairmen of the reference committees over on this side of the room. I won't keep you any longer than about five or ten minutes for a brief briefing session

Are there any other resolutions or motions? If not, we are adjourned until tomorrow morning at 9 A M. sharp

The session adjourned at 12 53 P M.

MORNING SESSION

Tuesday, May 3, 1949

The session convened at 9 A M.

Section 73

Announcements

SPEAKER ANDRESEN I have a couple of announcements to make I am going to call your attention again to the banquet at 7 o'clock tomorrow night. They would like you to get your tickets early

I would also like to announce again regarding the headquarters of the National Education Campaign in the press room. You are all welcome to come to our press room on the mezzanine floor to find out something about the campaign, and perhaps to implement yourself with the tools for your speech-making

It was inspiring yesterday afternoon to go into the foyer here and see the twenty tables at which our reference committees were busy working in the interests of the medical profession and also in the interests of the public. Owing to a careful selection of members of the committees, as I mentioned yesterday, I believe problems were attacked more thoroughly than ever before All tables showed serious activity Some had strenuous arguments with a good deal of table-thumping All subjects had ample discussion, longer than could possibly be given on the floor of the House No committees finished before 4 30 Some worked until 6 A few returned in the evening

The facilities provided for the reference committees were the best we have ever had—much better than those provided for the House of Delegates of the American Medical Association The editor, the many stenographers and typists, and the presence of legal counsel and other experts to advise were of the greatest help to the reference committees, and although more resolutions were considered than ever before I am informed that due to the improvement and shortening of resolutions as a result of the help, money will actually be saved in the reduction of editorial work and in the saving of space in printing the transactions In many instances where resolutions overlapped a single resolution embodying the principles of all was substituted, the wording and content of others were improved, and in some instances resolutions were practically rewritten

All this should save time this morning, and we are going to save time also by having to spend less time in the discussions today We don't want to work into the night as the large number of resolutions might lead us to expect. I am serving notice now that all discussers will be limited strictly to five minutes as required by the Bylaws, and will be al-

lowed to speak only once on any one subject, unless the House votes to extend the time or allow another or second discussion Upon reaching the five-minute point, I shall pound my gavel, and, if the speaker requests it, shall without a formal motion ask for a vote on the question of extension This will apply to any and all discussers

I ask any chairman who believes that his subject requires an executive session to let me know promptly I hope there will not be the necessity for having one

I also ask all of you to report back to your own component societies formally and informally what we have done here Too many doctors are uninformed or misinformed of what goes on at this meeting

As the chairmen are ready with their reports, please come up to the table and give your name to one of the secretaries I shall call you in order of your so reporting

The first committee which has done so is the Reference Committee on Report of the President, Dr Wood

Section 74

Report of the Reference Committee on Report of the President

DR THOMAS B WOOD, *Kings* Your Committee on the Report of the President has given much thought and careful consideration to each idea or suggestion made by our President, Dr Leo Simpson, in his report to the Medical Society of the State of New York as printed in the April 1 issue of the NEW YORK STATE JOURNAL OF MEDICINE, and has made the following comments for the approval of the House of Delegates

First, it has been noted by each member of the Committee, consisting of Drs Wood, Wurzbach, Jr, Morrison, Baker, and Wetherell, that Dr Simpson's report, while brief and concise, covers the course of his administration adequately

In his first paragraph he deplores the actions of certain individuals in our Federal government in Washington, in planning to make the government stronger and the individual ever weaker by means of compulsory health insurance, compulsion, bureaucratic administration, and diminished quality of medical service to those patients who need it most Your Committee feels that every member of this Society should act positively upon his suggestions for combating this impending catastrophe by first supporting the educational program of the A M A, second, by paying the $25 assessment without further delay, and third, by increasing membership in the Society-approved nonprofit voluntary medical care plans

We have increased our membership in these plans by more than one half million in the past year due largely to the efforts of Drs Wertz and Aaron and Mr Farrell Your Committee appreciates and commends the great work and splendid progress made by these men and their committees and recommends that it be carried on to greater heights

Your Committee recommends the adoption of this part of the report, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR WOOD The suggestion, made by our Past-President, Dr Louis Bauer, and carried out by Dr Leo Simpson, that the president-elect share one half the responsibility with the president in addressing the district branches throughout the State, is such a [illegible] Committee feels that it should be made a permanent part of the duties of the president-elect and offers the following resolution

"WHEREAS, the burden, in addition to his many other duties, of visiting and addressing all the district branches in one year is too much to put on on the shoulders of our president, and

"WHEREAS, the president-elect, to lighten his administrative duties for the coming year and assist in his training for assuming such responsibilities, should be given authority in the Bylaws, be it therefore

"*Resolved*, that the idea expressed in the resolution be referred to that appropriate committee of the Council to draft such an amendment to our Constitution to amend properly that article and section which applies to the duties of the president and president-elect, *and be it further*

"*Resolved*, that the committee be not limited to this one idea but may present other changes relative to the proper division of duties of these two most important administrative posts of this Society"

I move the adoption of this part of the report with the resolution

DR CLARENCE G BANDLER, *New York* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN The recommendation is adopted The matter will be referred to the Council for consideration next year

DR WOOD Your Committee notes with pleasure the praise given Dr Floyd S Winslow with [illegible] Dwight Anderson and his staff for their remarkable work in stepping up the activities of the Public Relations Bureau. This Bureau, an information bond to the county societies, an active collaborator with the educational campaign of the A M A., and with its multiple services to the profession, is one of great assets of this Society

Due to the prodigious efforts of Dr Kosmak, assisted by Dr Laurance Redway, the State JOURNAL has improved in quantity and quality of its scientific content and the high excellence of its editorials

I move the adoption of this part of the report

DR SAMUEL B BURK, *New York* I second it

SPEAKER ANDRESEN This is in effect a eulogy Dr Kosmak. I will call for a rising vote

The motion was adopted by the members of the House arising and applauding

DR WOOD We take care of that in another part of this

SPEAKER ANDRESEN I am informed there is going to be another reference to this later, so we are premature

DR GEORGE W KOSMAK, *Managing Editor* I don't like this "eulogy" idea (*Laughter*)

DR WOOD In view of the recommendation of our President to this House of Delegates that we evaluate our policy on blood banks as it was formulated last year, your Committee wishes to present the following resolution without any where for your consideration

"*Resolved*, that the Speaker of the House be required to refer this subject matter in the President's report relative to re-evaluating blood banks (unless it has already been done) to the proper policy-making body, for serious study and recommendation for explicit action"

I move the adoption of this part of the report including the resolution.

DR EDWIN A. GRIFFIN, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

DR. WOOD Your Committee notes the good word spoken by your President of the valiant work done by Dr J Stanley Kenney and his Compensation Committee with the help of Dr Kalish and the cooperation of Miss Donlon, the New York State Commissioner of Labor

Your Committee also notes that it is the duty of every member of this Society to help relieve the burden of ever-increasing malpractice suits, now carried by Mr Martin, our legal adviser It is self-evident that each one of us must be constantly alert in the care of our patients and also that we guard ourselves against criticizing our fellow practitioner except to proper authorities

Your Committee also concurs that it was a tremendous blow to the Society to lose the services of two of its staunchest supporters during the past year—Dr Albert A Gartner and Dr Oliver W H Mitchell

I move the adoption of this part of the report

DR. LEO F SCHIFF, *Clinton* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

DR. WOOD Acting upon the suggestion of your President in his report that the business quarters of the Medical Society of the State of New York at 292 Madison Avenue are rapidly becoming inadequate for its needs, your Committee presents the following, in the form of a resolution, for your action

"*Resolved*, that the chair appoint a committee of three members of the House of Delegates to explore the situation and make recommendations to the Council covering any suggested change"

I move the adoption of this part of the report, including the resolution.

DR EDWIN A. GRIFFEN, *Kings* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried

DR. WOOD It is a great pleasure to note the expression of deep appreciation our President made to those members of the Society's staff who have been of such great assistance to him during the year He also extended his thanks to all those committee members who served the Society so faithfully and well and to the House of Delegates for the honor conferred upon him by electing him President

I move the adoption of this part of the report

The motion was seconded by several, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 75 (*See 14*)

Report of Reference Committee on the Supplementary Report of the President

DR. THOMAS B WOOD, *Kings* In the supplementary report made yesterday morning by our President, Dr Leo Simpson, and referred to your Reference Committee, your Committee wishes to say that it is in entire agreement with the three points so ably stressed

First, that the Public Speaking Bureau of about 175 physicians has been organized by your State Society to carry its educational campaign to the public and the profession against the detrimental legislation now being discussed in Washington, and to exhort our Congressmen and Representatives to vote against such legislation

Second, that the NEW YORK STATE JOURNAL OF MEDICINE has shown constant improvement in its editorials, advertisements, and scientific content, due largely to the ardent work and application of Dr Kosmak and Dr Redway

Third, that the Malpractice Insurance program has instituted a change in the carrier company for the welfare of all members through its new master policy An urgent appeal is again made to come to the aid of our Counsel to better help him in the proper defense of our members It is the obvious duty of every member of the House of Delegates to support actively the group plan of malpractice insurance

Your Committee feels that a unanimous vote of thanks is due Dr Leo Simpson for the prodigious work he has carried on in spite of the many handicaps that have beset his path

I move the adoption of this part of the report

DR EDWARD P FLOOD, *Bronx* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried.

Section 76 (*See 15*)

Report of Reference Committee on the Report of President-Elect

DR. THOMAS B WOOD, *Kings* The address of Dr John J Masterson, president-elect, just referred to your Committee, rings true to form as to the character and ability of the man now about to assume the full responsibilities of the office of president

His chief concern deals with the step-by-step control of medicine by the Administration and quotes Senator Taft to the effect that the idea of socialized or nationalized medicine, without paying a greater price, is preposterous He mentions the Hoover reports and finds it difficult to account for statements in President Truman's recent message to Congress We believe compulsory sickness insurance will lead to financial, moral, and political sickness Its cost would have tremendous impact on our national economy The implementation of the 12-point program of the A.M A will correct any deficiencies in our present distribution of medical care by evolution, not revolution The real danger is that the people may not be informed in time The physician's office must be a sounding board to reach our people Failure to combat "state medicine" will be due to indifference, apathy, and the let-George-do-it attitude of the privates in our own profession The Woman's Auxiliary is cooperating splendidly in the execution of our plans

Your Committee compliments Dr Masterson on his able address and exhorts all members to take his words to heart and translate them into action

I move the adoption of this part of the report

DR. MAURICE J DATTELBAUM, *Kings* I second the motion.

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 77 (*See 70*)

Report of Reference Committee on Report of President Expression of Approval of Services of Dr George W Kosmak, Editor of the NEW YORK STATE JOURNAL OF MEDICINE

DR. THOMAS B WOOD, *Kings* The resolution introduced by Dr Floyd Winslow of Monroe County is as follows (*Resolution given in full—Section 70*)

Your Committee concurs in the sentiment expressed in this resolution memorializing Dr George W Kosmak, and recommends its adoption

I move the adoption of this part of the report.

DR. CLARENCE G BANDLER, *New York* I second it

SPEAKER ANDRESEN We have already had a standing vote which will let Dr Kosmak see what we think of him I will call the question to make this official

The motion was put to a vote, and was carried amid applause

SPEAKER ANDRESEN Dr Kosmak, will you take a bow?

DR. KOSMAK It is a little bit difficult for me to take this (*Applause*)

DR. WOOD Now I move the adoption of the report of your Reference Committee on the Report of the President as a whole

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Wood.

We will now hear from Dr Di Natale for his Committee on Constitution and Bylaws

In advance of the discussion on redistricting Secretary Anderton caused to be distributed to each delegate the map showing New York State, and the districts as then constituted (Fig 1)

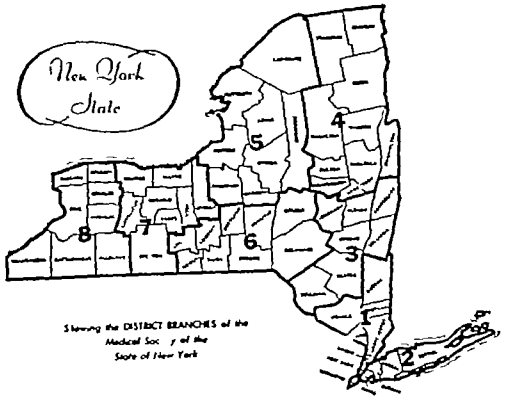


FIG 1

Section 78 (*See 163, 166*)

Report of Reference Committee on Constitution and Bylaws Redistricting

DR. PETER J DI NATALE, *Genesee* Mr Speaker and members of the House, this is the report of the Reference Committee on Proposed Amendments to the Constitution and Bylaws.

First, on the proposed amendment to Article XI of the Constitution, District Branches, which was introduced by Dr Stephen R. Monteith, Rockland County

"*Resolved*, that Article XI of the Constitution and Bylaws of the Medical Society of the State of New York be hereby amended to create a Ninth District Branch, and by such other redistribution as appears advantageous to develop the organizational activities of the district branches,"

your Committee, after hearing from a number of men interested in this matter, moves that Article XI, Section 1, Paragraph 1, be amended to read as follows

"The First District Branch shall comprise the members of the medical societies of the counties of New York, Bronx, Kings, Queens, and Richmond"

Your Committee feels this redistribution will better serve the interests of the five counties comprising Greater New York. Their problems are a little bit unique, and they should have their own district branch

I move you, sir, the adoption of this part of the Reference Committee's report

DR. SAMUEL B BURK, *New York* I second it

SPEAKER ANDRESEN Is there any discussion? All in favor say "Aye", contrary "No" The motion is carried, and the first recommendation of the committee is adopted.

DR. W GUERNSEY FREY, *Queens* May we not defer voting on this until we hear the rest of the redistricting, and what is going to happen in Rockland and Westchester Counties? I think it would be more intelligent to hear the rest of it before we vote on this portion

CHORUS *No* We have already voted

SPEAKER ANDRESEN It has been voted on and the amendment has been adopted. I asked for a discussion and nobody discussed it.

DR ARTHUR J BEDELL, *Past President* I move that we wait until we hear the whole thing It seems to me that would be a more logical method of procedure

DR. DI NATALE If it would facilitate matters, I voted in favor of it, so I will make a motion to reconsider the action just taken

SPEAKER ANDRESEN Will anybody second that motion for reconsideration?

DR. J STANLEY KENNEY, *Councilor* I will second it, yes

There being no discussion, the motion to reconsider was put to a vote, and was lost.

SPEAKER ANDRESEN The motion is lost.

DR. DI NATALE You mean we won.

SPEAKER ANDRESEN The motion to reconsider was lost, so the motion to adopt the Reference Committee's recommendation remains unchanged.

DR. DI NATALE Second, your Committee recommends that Article XI, Section 1, Paragraph 3, be made to read as follows

"The Second District Branch shall comprise the members of the medical societies of the counties of Westchester, Suffolk, Nassau, Rockland, Orange, Dutchess, and Putnam"

SPEAKER ANDRESEN And what do you want to do with that?

DR. DI NATALE I move the adoption of this second proposal.

The motion was seconded by several.

SPEAKER ANDRESEN Is there any discussion of that recommendation?

DR. FREDERICK S WETHERELL, *Onondaga* Where will they have their meetings?

DR. DI NATALE Why not let them decide that?

DR. LEO F SCHIFF, *Clinton* In view of the fact that this is still part of the redistricting, and it would be a far better plan to consider the whole thing together instead of only this part of it, I move that the vote on this be deferred until the entire plan has been completed, and it then can be taken up by sections

SPEAKER ANDRESEN Does anybody second that?

DR. BEDELL Yes, I will second that motion to defer action until the whole matter has been presented instead of this piecemeal procedure

DR. DI NATALE That is all there is, there is no more on that subject of redistricting

SPEAKER ANDRESEN I am informed there is no

further report from this Reference Committee on redistricting

DR. DI NATALE That is the end Those are the only two recommendations we are going to make on redistricting

DR. J STANLEY KENNEY, *Councilor* But the Reference Committee on the Report of the Planning Committee is going to bring in a recommendation on the same subject. I believe it is going to be in accord with this, but I could not be sure Therefore, I believe action on this could very well be deferred and this could very well come up at the time that that committee is ready to make its report on this subject of redistricting

SPEAKER ANDRESEN But the first recommendation in regard to the reconstituted First District has already been acted on

DR. KENNEY The first part has been adopted, I understand that, but this other could be deferred until the Reference Committee on the Report of the Planning Committee comes in with its recommendation on the same subject

SPEAKER ANDRESEN I think the other should have been deferred as well until then

CHORUS No It has been acted on

DR. KENNEY I think it might have been better for the House as a whole if it had been, yes

DR. SCHIFF I am willing to withdraw that motion

SPEAKER ANDRESEN Will you modify it and say that it should be deferred until the consideration of this question is brought up in the report of the Reference Committee on the Report of the Planning Committee? I understand they are going to take up something along that line also

DR. SCHIFF I will be very glad to reword my motion in that form.

DR. BEDELL I will accept that modification

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN The motion to defer action on that recommendation relative to redistricting of those counties is carried, and it will be considered when the other committee makes its report

DR. BEDELL Could we have a standing vote?

SPEAKER ANDRESEN Yes, I will ask for a standing vote All in favor of the deferment of this until the other committee reports will rise, now those opposed. The motion to defer is won

Continue, Dr Ni Natale, with your report

Section 79

Report of Reference Committee on Constitution and Bylaws Amendment to Chapter IV, Section 10, of Bylaws—Enlargement of Council Committee on Workmen's Compensation

DR. PETER J DI NATALE, *Genesee* On the proposed amendment to Chapter IV, Section 10, of the Bylaws, enlargement of Council Committee on Workmen's Compensation, introduced by Dr Joseph C O'Gorman, Erie County

"WHEREAS, the Constitution of the Medical Society of the State of New York limits the membership of the Council Committee on Workmen's Compensation to three, and

"WHEREAS, there exists a definite need for enlargement of this Committee so as to give it wider geographic representation, now therefore be it

"*Resolved*, that the Constitution of the Medical Society of the State of New York be amended by inserting in Chapter IV, Section 10, thereof, after the sentence beginning with 'The membership of the Committees' and ending with 'of the Bylaws,' the words 'and the Committee on Workmen's Compensation on (*k*) Chapter IV, Section 9 of the Bylaws'"

Your Committee, after much discussion, moves the adoption of this proposed amendment to the Bylaws—and this was after hearing all those who were interested and who appeared before the Committee, and we were all agreed on this recommendation—so that Section 10, Article IV, would read as follows

"Committees of the Council may include other members of the Society and shall be appointed by the President subject to the approval of the Council Each committee shall include at least one member of the Council who shall be chairman, except that he need not be chairman for the committee or committees in charge of activities (*a*), (*b*), and (*f*), Chapter IV, Section 9 of the Bylaws The membership of committees shall not exceed three including the chairman, except the committee or committees in charge of activities (*a*), (*b*), (*d*), and (*f*),"

and then add after (*f*) "the Committee on Workmen's Compensation"

I move the adoption of this portion of the report

The motion was seconded by several.

DR HOMER J KNICKERBOCKER, *Ontario* To clarify the situation may I ask that the resolution as introduced by Dr O'Gorman be read?

DR. DI NATALE I did read it

SPEAKER ANDRESEN Will you read it again?

The resolution was read

SPEAKER ANDRESEN Is there any discussion?

DR. J STANLEY KENNEY, *Councilor* I am a little confused on that May I ask is this an over-all resolution to enlarge all of the Council committees?

DR. DI NATALE No

DR KENNEY Just this one committee?

DR. DI NATALE Yes

DR. KENNEY And you would change the Bylaws to change the number on one Council committee?

DR. DI NATALE This would give the Council the right if they wished to enlarge the Committee on Workmen's Compensation It is not obligatory upon them, but only if they so desire

DR. KENNEY Why single out one committee?

DR. A W MARTIN MARINO, *Section Delegate* At the suggestion of the Legislative Reference Committee, I move that the amendment to the Constitution and Bylaws increasing the number of members on the Workmen's Compensation Committee be amended so as to also increase the number on the Committee on Legislation If there is any discussion necessary, we will discuss that phase of it

DR. HENRY W MILLER, *Putnam* I second that

SPEAKER ANDRESEN This is an amendment to the amendment proposed by the Reference Committee on Report of the Council, Part IX, on Legislation, and consists simply in allowing an increase also in the Committee on Legislation in addition to the Committee on Workmen's Compensation As an amendment to this amendment I consider it in order Is there anybody to dispute my ruling on this?

There was no dissent expressed.

SPEAKER ANDRESEN Is there any discussion on the amendment to the amendment?

DR. JOSEPH A. GEIS, *Essex* There was a resolution introduced yesterday to have this House vote such a change without referring it as an amendment to the Constitution and Bylaws I believe that was referred to Dr Moore's committee, and this amend-

ment will take care of that resolution in a legal way, otherwise we will have a report from a reference committee for the adoption of something that really should be an amendment to the Constitution and Bylaws This does take care of that resolution in a legal way

DR. JOHN J MASTERSON, *President-Elect* This, in my opinion, is really an amendment to the Constitution In going over the Constitution and Bylaws I note we have 17 committees, on 14 of which the chairman must be a member of the Council We have in the Society over 20,000 members, and I don't think that the President should have to confine the chairmen of fourteen important standing committees to the elected members of the Council, because it means that each Councilor would have to be chairman of at least five committees I think that the proper thing to do is for someone to make a motion that a committee be appointed for the revision of our Constitution and Bylaws In many cases we may have a member who has some very special abilities for a particular kind of work, but because he is not a member of the Council the President is unable to appoint that man as chairman of that committee

Also, I think that the numbers on the Council committees should not be limited to three as the Constitution and Bylaws state at the present time

This is clearly an amendment to the Constitution and Bylaws, and I don't think this body can act on it at this time, although it is for the Speaker to say that and not for me to make that ruling However, I hope before the meeting is over a motion will be made for the appointment of a Committee for the revision of the Constitution and Bylaws (*Applause*)

DR. WILLIAM B RAWLS, *New York* I would like to answer the gentleman back there (*indicating Dr Geis*) This resolution was before my reference committee Dr Marino is a member of our reference committee We realized that the resolution was unconstitutional, so we suggested that Dr Marino make this suggestion for the amendment to the amendment already before the House in order that this resolution might be put through and still be in order as it is at the present time If it is not done this way, the resolution will be out of order, but, if this amendment to the amendment passes, the resolution to increase the number will be in order

DR. KENNEY Mr Speaker and gentlemen of the House, I think there is considerable merit in what Dr Masterson just said. I am not in opposition to increasing the number on the Council committees if it is in the best interests of the Society, and certainly I will welcome broader support in workmen's compensation, but I just don't like this piecemeal attack on the Constitution and Bylaws, enlarging this committee and that committee and not touching the over-all picture I think the remarks of Dr Masterson are well taken We do have an Advisory Committee on Workmen's Compensation at the present time representing the eight districts of the State, and I believe now that that committee has had an opportunity to organize it can carry out the intent of the Erie County resolution until such time as the general revision of the Constitution and Bylaws is undertaken.

SPEAKER ANDRESEN Is there any further discussion?

DR. JOSEPH C O'GORMAN, *Erie* It is not the intent of Erie County to have an Advisory Committee, as has been reported. You all know what an advisory committee means Nothing!

If, after due consideration and after a year's time to study this, you postpone increasing this committee, you are pursuing delay tactics, and you are going to delay action for another year or maybe more The workmen's compensation problems affect 40 or more counties in this State, and we find out from years of experience that the medical profession, even the man in general practice, is not acquainted with its provisions There has been a lack of information given to them. We have tried to rectify that in the Eighth District We have succeeded in Western New York, and we hope to do that for the State as a whole You cannot possibly with your small committee of the Council do the job that needs to be done, and then, when you further provide that a Councilor must be the chairman of that committee, you are asking for almost the impossible, because there are men on the Council that are totally unacquainted with workmen's compensation problems, and when you have as the chairman of the Council Committee on Workmen's Compensation a very estimable gentleman, energetic and very worthy, by the time he learns something you have somebody else to educate We believe it is in the best interests of the profession as a whole to enlarge this committee

We determined in Western New York to have a general conference of the Eighth District for all purposes, an over-all Eighth District conference, so we put that into effect, and out of that has come the Workmen's Compensation Committee for the Eighth District We did not take any autonomy away from the county societies They still ran their own affairs, but we served as their administrators in Western New York We have it working now so that we don't have too many problems We have the cooperation of the carriers, we have the cooperation of labor, we have the cooperation of the self insurers The claims counsel come to the Western New York office in Buffalo, in which we have a paid executive for the Western New York district, and the problems are settled right on the spot, and we don't have so many things go by the board in the State as we used to

The medical profession is being abused by this Workmen's Compensation Law The "X" medical law, the "X" medical policy, wherein the carrier pays the damages and the company pays the doctor, that is one of the things that is one of the abuses

I don't think you should delay increasing this workmen's compensation committee any longer It is not going to interfere with any of the other revisions of the Constitution and Bylaws just because it is increased

Furthermore, I believe the Committee on Legislation should be increased also We know from experience that three men serving on this committee are completely inadequate

This is really from the Eighth District Workmen's Compensation Committee, and we put this resolution in to increase the number for the benefit of the State Medical Society as a whole

SPEAKER ANDRESEN You are not discussing the amendment to the motion You are now discussing the constitutional amendment in the original motion

DR. O'GORMAN If the amendment is going to kill the original motion, then kill the amendment.

SPEAKER ANDRESEN It is quite evident that what we are doing today is to create some stopgaps for defects in our present Constitution and Bylaws I am reliably informed that there is going to be later a resolution to appoint a committee to revise our Con-

stitution and Bylaws generally The Chair has ruled that this amendment to the amendment is proper If it were not proper, we would never be able to get an amendment to the Constitution adopted Somebody could come up each year with an amendment and kill a proposed amendment to the Constitution in that way It is perfectly proper for an amendment to the Constitution, when it is being brought up and discussed, to be amended, and I rule that this is an amendment to the amendment Now is there any further discussion?

DR RAWLS I only offered an explanation a moment ago in reply to a question put by the doctor back there (*indicating Dr Geis*)

DR DI NATALE May I state that I speak for four of the members of our Committee when I say that this was brought to their attention this morning, and they also are all in favor of this amendment to include the Committee on Legislation in that change

DR RAWLS It has been suggested that we change the entire Constitution and Bylaws That means this would be put over for another year The reference committee felt that the coming year would probably be one of the most important we have ever had in legislation of the State Medical Society, and that, even though this is a stopgap, and even though the Constitution and Bylaws generally do need to be amended, we should not be required to wait the entire year before we can increase the number on the Committee on Legislation, because there is too much work to be done Therefore, we would like to see this amendment go through today

SPEAKER ANDRESEN I hope you did not miss what I said I said that I thought these stopgaps were quite necessary in order to make us function this year rather than to wait until the revision of the Constitution and Bylaws generally next year

The question was called, and the amendment was put to a vote, and was carried

SPEAKER ANDRESEN The amendment is carried to allow an increase in the Committee on Legislation Now we come to the amendment concerning the Committee on Workmen's Compensation

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN The amendment as amended is carried, and now becomes a part of our Constitution and Bylaws

DR. DI NATALE I now move the adoption of the report as a whole

SPEAKER ANDRESEN You cannot do that You have one matter, action on which was deferred until another reference committee reports

DR. DI NATALE Right

Section 80

Report of Reference Committee on Report of Council, Part V, Public Health Activities (C) Nutrition, Geriatrics, Physical Medicine, and Rehabilitation

DR. HARRY V SPAULDING, *Section Delegate* The Reference Committee on Public Health Activities (C) to include Nutrition, Geriatrics, Physical Medicine, and Rehabilitation, consists of Harry V Spaulding, New York, chairman, Charles L Pope, Binghamton, E Carlton Foster, Penn Yan, Edwin L Harmon, Westchester, and Madge C L McGuinness, New York. This committee, for geographic reasons, has deferred its meeting until we could discuss our assignments at this convention It is our conviction that in these four specialties the Medical Society of the State of New York leads the state societies of the nation

Nutrition Your Committee feels that the Empire State should lead in nutritional studies Dr Norman S Moore, of the School of Nutrition, Cornell University, has contributed a most valuable series of articles on this vital subject His studies ramify every specialty from pediatrics to geriatrics—"the seven ages of man"

Your Committee urges further study of the nutritional problems of the internist, the surgeon, and the pediatrist Jolliffe, Moore, and others have stressed to the medical profession the scientific approach to nutritional studies

One Committee member is bringing these nutritional fundamentals before his local school system, and many communities are following the precepts of our own State's leadership

Your Committee again urges upon us all the value of nutritional studies in every specialty

Geriatrics In the geriatric field again New York is well to the fore Our previous Subcommittee in Geriatrics headed by Dr Stephen R Monteith, assisted by Drs C Ward Crampton and Scott Lord Smith, has distinguished itself in promulgating legislation regarding nursing homes, practical nursing, and furthering medical research in this new, old specialty In institutional work one Committee member has pointed out the correlation of physical medicine, geriatrics, and nutritional specialties, and is giving particular attention to them as a group institutional procedure

Physical Medicine and Rehabilitation In this specialty the nation eyes our progress and leadership Sardonically, it takes a war to advance the progress of medicine and surgery, and one of the most important advances made in medical care during and since World War II has been the increased recognition given to physical medicine and rehabilitation as an integral part of medical care

This field of medicine takes the patient from the bed to the job, the disabled and paralytic back to industry, and teaches and trains the maimed to utilize to the utmost what he has left Rehabilitation centers are being established throughout the State Doctors in various industrial centers are carrying out these principles of rehabilitation, beginning at the earliest possible moment following acute illness or injury

In World War I, Albee organized General Hospital No 3 at Colonia, New Jersey, where modern physical medicine principles were initiated, to be followed by the work of the American Rehabilitation Center—the first curative workshop to be nationally adopted by World War II Civilian centers are being established throughout the nation.

One of our Committee members, having devoted years to these physical medicine problems, concurs in the belief that the surgeon, the internist, the neuropsychiatrist, the psychiatrist, the specially trained nurse, the occupational therapist, the work therapist, and other related specialists must all complete the rehabilitation team.

Your Committee, therefore, urges the physicians and surgeons of the Medical Society of the State of New York to a more physical medicine-, nutrition- and geriatric-consciousness

I have a resolution that was referred to this Committee as well. Shall I report on that now?

SPEAKER ANDRESEN No, I think you had better divide it up You move the adoption of this portion of the report?

DR. SPAULDING Yes, I move it

SPEAKER ANDRESEN Is there a second?

DR. AARON KOTTLER, *Kings* I will second it

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The report is adopted You have a resolution?

DR. SPAULDING Yes

Section 81 (*See 62*)

Report of Reference Committee on Report of Council, Part V Displaced Physicians

DR. HARRY V SPAULDING, *Section Delegate* Resolution of Dr Harold B Davidson, introduced by Dr Samuel Z Freedman

(*Resolution given in full—Section 62*)

The Reference Committee concurs in this resolution, and I move its adoption

DR. IRVING J SANDS, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN I would like to announce now that we are anxious to get in new resolutions as early as possible After the next reference committee report I will call for any further new resolutions

Section 82 (*See 11A*)

Report of Reference Committee on Report of Council, Part VIII Liaison with Veterans Administration

DR JOSEPH P HENRY, *Monroe* The Report of the Reference Committee on Report of the Council, Part VIII is in two parts, both very short. The first concerns itself with Liaison with Veterans Administration

Your Reference Committee recognizes the complexity and difficulties of this problem and feels that the Liaison Committee has done an excellent job and should be highly commended

Your Reference Committee hopes that the Liaison Committee will continue its efforts in directing the care of the veteran toward "home town" care.

I move the adoption of this report

DR. STEPHEN H CURTIS, *Section Delegate* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 83 (*See 11B*)

Report of Reference Committee on Report of Council, Part VIII War Memorial

DR. JOSEPH P HENRY, *Monroe* Your Reference Committee compliments and commends the War Memorial Committee on the vast amount of excellent work accomplished and the informative report submitted It recommends that the War Memorial Committee be continued I move the adoption of this report, with its recommendation

DR. BENJAMIN BERNSTEIN, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

DR. HENRY Now I move the adoption of the Report of the Council Reference Committee, Part VIII, signed by Benjamin M Bernstein, Stephen H Curtis, Joseph L Kiley, Halford Hallock, and Joseph P Henry, chairman, as a whole

DR. FREDERICK A. WURZBACH, JR., *Bronx* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN We are now ready to consider any new resolutions Are there any new resolutions?

There was no response

Section 84

Announcements

SPEAKER ANDRESEN If there are no new resolutions, I have a couple of announcements to make First, all delegates are urged to visit the Scientific Exhibits on the mezzanine floor and the Technical Exhibits on the seventeenth floor of this hotel Please do not fail to register at the registration desk at the entrance to the exhibits on the seventeenth floor

I would also like to announce that Miss Mary Donlon has been invited to speak to us at twelve o'clock Whatever business we have will be suspended then for ten minutes while she tells us something about the new law—what is the name of it?

DR. J STANLEY KENNEY Disability Sickness Insurance Law

SPEAKER ANDRESEN About which many of us know very little, but which is going to affect all of us and the entire public

Section 85 (*See 63*)

Report of Reference Committee on Miscellaneous Business (B) Bed Facilities in Municipal and Voluntary Hospitals

DR. NORMAN S MOORE, *Tompkins* This is a resolution introduced by Dr McCarthy, of the Bronx as an individual

(*Resolution given in full—Section 63*)

I might say that the Reference Committee is quite cognizant of the fact that that resolution should be disposed of, if possible, by this House and not referred However, following a thorough review of the subject with the proponents and opponents of this resolution, your Reference Committee is of the opinion that the issues involved are too far-reaching in character to permit of discussion without further study

Therefore, the Reference Committee recommends that this resolution be referred to the Council. I move the adoption of the recommendation

DR. ABRAHAM KOPLOWITZ, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 86 (*See 69*)

Report of Reference Committee on Miscellaneous Business (B) To Amend the Education Law in the Practice of Anesthesia

DR. NORMAN S MOORE, *Tompkins* Resolution introduced by Dr Nathan Brodie, of Kings

(*Resolution given in full—Section 69*)

At the hearing for this resolution an officer of the Anesthesia Society and the Section Delegate on Anesthesiology appeared before the Reference Committee Both presented arguments in opposition to this resolution Your Reference Committee unanimously supports their contention that anesthesiology is insufficiently defined in the resolution, and that more time is required to allow interested individuals, societies, and institutions to define properly this specialty In addition, the Committee is of the opinion that the content of the resolution is controversial and will raise unpredictable public relations problems with surgical specialty societies and various teaching institutions and hospitals

The Reference Committee recommends disapproval of this resolution

I move the adoption of the recommendation

DR. CLARENCE G BANDLER, *New York* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN This motion is carried, and the original resolution is lost

Section 87 (*See 61*)

Report of Reference Committee on Miscellaneous Business (B) Location Bureau for Proper Distribution of Medical Personnel

DR. NORMAN S MOORE, *Tompkins* Resolution introduced from the Orange County Medical Society (*Resolution given in full—Section 61*)

The Reference Committee is aware of the fact that the Secretary of the State Society has acted for the past two years as a one-man placement bureau Also the Committee is informed that the NEW YORK STATE JOURNAL OF MEDICINE has a classified ad department, further activity of which will infringe on the classified ad department of the *Journal of the American Medical Association* The Committee feels there is insufficient need for the establishment of an additional bureau for employment in the State Society organization at this time Further, the Reference Committee is of the opinion that the resolution is so worded that it casts reflection on worthy members of our profession. The Reference Committee recommends disapproval of this resolution

I move the adoption of the Reference Committee's recommendation

The motion was seconded by several

SPEAKER ANDRESEN The recommendation of the Reference Committee, which carries with it disapproval of the resolution, is now open for discussion

DR. BENJAMIN M BERNSTEIN, *Kings* One of the important problems that everybody has been discussing in this country is the maldistribution of our doctors throughout the United States How is a young fellow going to get a job or find that one is available and waiting for him some place in the United States? From personal experience with a man in my office who is looking for a connection of that kind I know how difficult the situation is. What did he do? Did he put an ad in the A M A *Journal*? He said, "There are five million others in the A.M A. *Journal* under classified ads, so I am lost in the shuffle", and he is a wise guy Perhaps your contention will be that he should word his ad sufficiently different so as to attract attention Well, I don't know how much attention the ad would attract at best It is lost in the shuffle He cannot find a job he is looking for outside of New York City unless we help him and these other like-minded young men in finding suitable locations so there is a redistribution of the physicians in this country, which is one of the most important things we have been accused of not helping along We have plenty of doctors, we say, but they are not distributed properly

It seems to me that a bureau, not necessarily set up by our State Society, but set up by the American Medical Association as a placement bureau or a redistribution bureau, call it what you will, is necessary—not only one that will simply involve the business of putting classified ads in the A.M.A *Journal*, these because of their very number are lost in the shuffle

I would urge that the House of Delegates of the American Medical Association be asked to set up a placement bureau, to which these men can come or to which these men can write voluntarily, without spending their money or their energy in classifying themselves in a classified column and being lost thereby

DR. MOORE In support of the Reference Committee's recommendation, may I say that this question just discussed was brought in our Committee hearing and thoroughly considered There are men being placed every day by Dr Anderton in the State Society There are ads being placed We had as exhibits A, B, and C, three journals showing the classified advertisement section in the NEW YORK STATE JOURNAL OF MEDICINE This classified ad section will take ads from any state in the Union They do not encourage it, however, because it is in competition with the classified ad section of the *Journal of the A M A* Therefore, in rebuttal, in supporting the Committee, I feel that these points have been covered, Mr Speaker

SPEAKER ANDRESEN Is there any further discussion?

DR. THOMAS B WOOD, *Kings* I would just like to suggest that certain terms used in this resolution be changed somewhat He uses the word "organized" medicine throughout most of his "whereases" As we know, today we have no organized medicine, we have a medical profession Even President Roosevelt in having the Supreme Court declare us a trade did not say that we were organized medicine practicing in restraint of trade He said that we were the *medical profession practicing in* restraint of trade

I think the suggestion has been sent out by the American Medical Association that we disavow the term "organized medicine" so as not to confuse us with organized labor, and it is a good idea Therefore, I would suggest the deletion of the words "organized medicine" in the "whereases" and the insertion therefor of "medical profession"

SPEAKER ANDRESEN Your point is well taken, Dr Wood

Dr Bernstein, would you accept that correction in your "whereases," substituting the term "medical profession" every time "organized medicine" appears?

DR. BERNSTEIN It is not my resolution

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN The recommendation of the Committee, calling for the disapproval of the resolution, is adopted

Section 88 (*See 43, 131*)

Report of Reference Committee on Miscellaneous Business (B) Remission of Dues for Physicians Leaving to Take Up Postgraduate Work in Medical Education

DR. NORMAN S MOORE, *Tompkins* Resolution introduced by Dr G S Baker, of Wyoming County

"WHEREAS, several members of the New York State Medical Society have given up their practices to return to teaching institutions for residencies, and

"WHEREAS, these members now have a very limited income and in some instances no income at all, and

"WHEREAS, it is desirable that these doctors continue as members of their county medical societies and the New York State Medical Society, and

"WHEREAS, the continued payment of annual dues constitutes a serious financial burden to these members, be it therefore

"*Resolved*, that the House of Delegates of the

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The report is adopted You have a resolution?

DR. SPAULDING Yes

Section 81 (*See 62*)

Report of Reference Committee on Report of Council, Part V Displaced Physicians

DR. HARRY V SPAULDING, *Section Delegate* Resolution of Dr Harold B Davidson, introduced by Dr Samuel Z Freedman

(*Resolution given in full—Section 62*)

The Reference Committee concurs in this resolution, and I move its adoption

DR. IRVING J SANDS, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN I would like to announce now that we are anxious to get in new resolutions as early as possible After the next reference committee report I will call for any further new resolutions

Section 82 (*See 11A*)

Report of Reference Committee on Report of Council, Part VIII Liaison with Veterans Administration

DR. JOSEPH P HENRY, *Monroe* The Report of the Reference Committee on Report of the Council, Part VIII is in two parts, both very short The first concerns itself with Liaison with Veterans Administration

Your Reference Committee recognizes the complexity and difficulties of this problem and feels that the Liaison Committee has done an excellent job and should be highly commended

Your Reference Committee hopes that the Liaison Committee will continue its efforts in directing the care of the veteran toward "home town" care.

I move the adoption of this report

DR. STEPHEN H CURTIS, *Section Delegate* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 83 (*See 11B*)

Report of Reference Committee on Report of Council, Part VIII War Memorial

DR. JOSEPH P HENRY, *Monroe* Your Reference Committee compliments and commends the War Memorial Committee on the vast amount of excellent work accomplished and the informative report submitted It recommends that the War Memorial Committee be continued I move the adoption of this report, with its recommendation.

DR. BENJAMIN BERNSTEIN, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

DR HENRY Now I move the adoption of the Report of the Council Reference Committee, Part VIII, signed by Benjamin M Bernstein, Stephen H Curtis, Joseph L Kiley, Halford Hallock, and Joseph P Henry, chairman, as a whole

DR. FREDERICK A. WURZBACH, JR., *Bronx* I second the motion.

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN We are now ready to consider any new resolutions Are there any new resolutions?

There was no response

Section 84

Announcements

SPEAKER ANDRESEN If there are no new reso tions, I have a couple of announcements to ma First, all delegates are urged to visit the Scient Exhibits on the mezzanine floor and the Techni Exhibits on the seventeenth floor of this hot Please do not fail to register at the registration de at the entrance to the exhibits on the seventeen floor

I would also like to announce that Miss Ma Donlon has been invited to speak to us at twel o'clock Whatever business we have will be su pended then for ten minutes while she tells us som thing about the new law—what is the name of it?

DR. J STANLEY KENNEY Disability Sickne Insurance Law

SPEAKER ANDRESEN About which many of u know very little, but which is going to affect all o us and the entire public

Section 85 (*See 63*)

Report of Reference Committee on Miscellaneous Business (B) Bed Facilities in Municipal and Voluntary Hospitals

DR NORMAN S MOORE, *Tompkins* This is a resolution introduced by Dr McCarthy, of the Bronx as an individual

(*Resolution given in full—Section 63*)

I might say that the Reference Committee is quite cognizant of the fact that that resolution should be disposed of, if possible, by this House and not referred However, following a thorough review of the subject with the proponents and opponents of this resolution, your Reference Committee is of the opinion that the issues involved are too far-reaching in character to permit of discussion without further study

Therefore, the Reference Committee recommends that this resolution be referred to the Council. I move the adoption of the recommendation

DR. ABRAHAM KOPLOWITZ, *Kings* I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 86 (*See 69*)

Report of Reference Committee on Miscellaneous Business (B) To Amend the Education Law in the Practice of Anesthesia

DR. NORMAN S MOORE, *Tompkins* Resolution introduced by Dr Nathan Brodie, of Kings

(*Resolution given in full—Section 69*)

At the hearing for this resolution an officer of the Anesthesia Society and the Section Delegate on Anesthesiology appeared before the Reference Committee Both presented arguments in opposition to this resolution Your Reference Committee unanimously supports their contention that anesthesiology is insufficiently defined in the resolution, and that more time is required to allow interested individuals, societies, and institutions to define properly this specialty In addition, the Committee is of the opinion that the content of the resolution is controversial and will raise unpredictable public relations problems with surgical specialty societies and various teaching institutions and hospitals

The Reference Committee recommends disapproval of this resolution

I move the adoption of the recommendation

son might be out six months in one year and six months in another year and claim two years' remission, and it is up to the county society to determine whether this man was out for one solid year

DR. WOLFF That is why I raised the point because that had occurred to me You can just substitute for the word "fiscal" the words "twelve continuous months"

DR. MOORE Yes, I will do that

SPEAKER ANDRESEN Do you want to make that change?

DR. MOORE Yes, I will accept that Does my committee have any objection to that?

None was expressed

SPEAKER ANDRESEN That change has been made then, changing the word "fiscal" to "twelve consecutive months"

DR. MOORE Right

DR. FENWICK BEEKMAN, *Assistant Treasurer* There are so many questions on this substitute motion that I feel it should be rereferred to the Committee so that it can be rewritten to cover all of these questions that have been brought up

DR. SAMUEL Z FREEDMAN, *New York* I second that motion to rerefer it to the Reference Committee

There being no further discussion, the motion was put to a vote, and was carried

SPEAKER ANDRESEN It is referred back to the Committee for clarification

Section 89 (See 24)

Report of Reference Committee on Miscellaneous Business (B) Medical Specialty Boards—Admission to Examination

DR. NORMAN S MOORE, *Tompkins* Resolution introduced by Dr Freedman of New York, on "Specialty Boards," which resolution was approved at the January 24, 1949, meeting of the Medical Society of the County of New York

(*Resolution given in full—Section 24*)

Delegates, your Reference Committee, after holding what it believes to be an adequate hearing on the subject, has obtained no evidence of discrimination by specialty boards Close study of the resolution reveals it to be too inclusive, and it appears to indict all specialty boards for discriminatory practices The Committee is of the opinion that the Medical Society of the State of New York has no jurisdiction over requirements of the various specialty boards The Reference Committee recommends disapproval of this resolution, and I so move

The motion was seconded by several, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The recommendation is adopted and the original resolution is lost

Are there any more committees ready to report? If so, we will be very glad to hear from them

There was no response

Section 90

Report of Group Plan Actuary

SPEAKER ANDRESEN In the meanwhile then, a couple of years ago this body asked for an audit of the malpractice insurance and defense board, and we are ready now to receive the audit from Dr Schiff

DR. LEO F SCHIFF, *Clinton* Mr Speaker and members of the House of Delegates, this report was to have been made to you by the auditor himself, Mr Linder, who spoke to the House last year Unfortunately, illness at the last moment prevented his coming, and he has sent his report to be read I am now reading this to you as a communication

"Acting upon the instructions of your Society, we have completed an audit and actuarial study of your Group Plan of Malpractice Insurance and Defense, the report thereon having been filed with your Secretary Our survey is a continuation of that made last year and utilizes the data compiled during the calendar year 1948 Since our report is necessarily of a technical nature, I shall try in these brief remarks to explain the significance of our findings and conclusions in a way that may be helpful to you

"Before presenting our findings, I would like to draw your special attention to the difficult nature of the actuarial problem involved Insurance rates are predicated on the loss experience which, in the case of malpractice insurance, is composed of the following three elements

"(*a*) The known loss costs as represented by the loss vouchers,

"(*b*) Estimated costs for reported but unsettled cases,

"(*c*) Estimated costs of suits and claims not yet reported, for acts committed some time in the past

"The inordinate delay in the reporting and final disposal of malpractice claims and suits is responsible for the fact that the estimates for the last two groups form an unusually large part of the loss experience. Furthermore, the estimates of the final costs in both of these groups cannot be determined with the same degree of accuracy as those under other forms of liability insurance These factors combine to make rating for malpractice insurance far more difficult than any other kind of liability insurance

"In the case of the incurred but not reported cases, both the number of losses to arise and the ultimate cost of them must be estimated Any method of analysis which is adopted must assume that the same incidence of claims exhibited in the past will be encountered in the future, and the cost of them will closely approximate those most recently closed Should there be a marked change either in the incidence of cases, or if ultimate settlement costs vary materially from the assumed costs, the calculated rates will, of necessity, vary accordingly For these reasons it should be stressed that the best we can achieve is reasonable results based upon a fair period of time, such as three or five years

"The method which we have followed in our analysis is similar to that employed last year, that is, we have utilized the last five expired policy years for rate-making purposes Here the problem is to strike a balance between recency of experience and dependability of data For example, were we to utilize a period of less than five years, our experience would be much more recent On the other hand, the proportion of estimated losses to total losses would be much larger than for the five-year period Even utilizing a five-year period, the closed cases amount to only 41 0 per cent of the total probable loss experience The similar figure for three years would be 27 7 per cent of the total It is, therefore, our considered judgment that we should utilize the five-year period rather than the three-year period, since, in that way, a fair balance is struck between recency of experience and dependability of data

"In our report of last year, we recommended the utilization of the last five expired policy years, and this suggestion has been adopted For the five expired policy years ending with 1947, our results indicate that over this period the rate for metropolitan

Medical Society of the State of New York remit the annual State assessment of members in this category as an encouragement to the undertaking of postgraduate studies, and to relieve these deserving members of the burden of paying dues this to apply only to those members taking courses of one or more fiscal year's duration"

At the hearing of the Reference Committee many officers of your Society were present and gave opinions in favor of the general idea of this resolution. Therefore, your Reference Committee offers a substitute resolution to read,

"*Be It Therefore Resolved* that the House of Delegates of the Medical Society of the State of New York shall remit, on the request of a county society, the annual State dues of members, not in active practice, who are undertaking postgraduate studies, and be it further

"*Resolved*, that immunity from dues shall apply only to those members whose studies continue for one fiscal year or more"

Your Reference Committee recommends the adoption of the substitute resolution, and I so move

The motion was seconded by several

DR. FREDERICK S WETHERELL, *Onondaga* I have a question A young man who is in this course of education comes right home to me, who is not already a member of a county society, but he wishes to be, and who is on his own and cannot afford to pay the dues the first year, what happens to him? Suppose my son applies now for membership in a county society, will he be taken in as of then and his dues remitted up to 1953, which will end nine years of training, during which time he learns nothing about professional medicine and its activities in county societies? That is not included in there, but I merely ask for clarification on that point

SPEAKER ANDRESEN May I inform the questioner that a good many county medical societies have an intern and resident membership, and I think such a man could be included in one of those. He cannot be considered as a member of the State Society unless he is elected to full membership in the county society, isn't that right?

SECRETARY ANDERTON Yes

SPEAKER ANDRESEN So that that question really has nothing to do with this motion

DR. WETHERELL The main question in my mind is should he today make application and then be accepted as a member of the county society? He would have to put up his first year's dues, would he not?

SPEAKER ANDRESEN Yes, in order to become a member

DR. WETHERELL Then would those dues by request be remitted to him?

SPEAKER ANDRESEN No

DR MOORE I move the substitute

SPEAKER ANDRESEN Do you want to make any kind of a recommendation, or amendment, or anything else?

DR. EZRA A. WOLFF *Queens* I would like to ask another question This contemplates that dues be remitted for men whose residencies occupy one or more fiscal years What would happen to a man who had a residency which is not for a year which coincides with a fiscal year? If his residency went from July to July, and our fiscal year runs from January to December, how would that be covered?

SPEAKER ANDRESEN Will you answer that?

DR. MOORE I think the intention of the Committee is that the word "fiscal" means not January to January but a year in which dues would be remitted, in other words, there would be one year which the dues would be remitted.

DR. MOSES H. KRAKOW, *Bronx* Then why n omit the word "fiscal", and make it a year?

SPEAKER ANDRESEN A man might have tw years' dues remitted if his residency occurred in tw different fiscal years, even if it was only of a year duration In other words, if he had four months i one fiscal year and eight months in the other fisc year, he should only have one year's dues remitte He has to be away a whole year during which due are to be remitted, as I understand it.

DR. KRAKOW Why not "continuous study for on full year"?

CHORUS "Twelve months"

SPEAKER ANDRESEN Does anybody want t make an amendment?

DR. JAMES R REULING, *Treasurer* In the substitute resolution offered by the Committee I failed to hear that their county societies were going to remit their dues as well It only says that the State Society dues shall be remitted I am wondering whether that is an oversight or whether it was done with intent by the Committee

DR. MOORE In the substitute resolution there appear two or three phrases that are not in the original, and I will read them

"*Be It Resolved* that the House of Delegates of the Medical Society of the State of New York" —this is new—

"shall remit, on the request of a county society" —and it was presumed that the county society would not ask the State Society to remit its dues unless it already had done so—

DR. REULING That is a presumption?

DR MOORE Right

DR. REULING Why not have it stated as a fact?

DR. MOORE It could be very easily inserted.

SPEAKER ANDRESEN Do you want to add that, that the county society also first remit its own dues?

DR. REULING I move it be rereferred for clarification

SPEAKER ANDRESEN That one point could be added without rereferring it, if you wanted to put in, "on the request of a county society which has already remitted its dues"

DR. MOORE That is right, "on the request of a county society which has remitted its dues"

SPEAKER ANDRESEN Add that to the resolution, and it will cover that one point

DR. MOORE Is there any objection from my committee? If so, please raise your hands

SPEAKER ANDRESEN Is there any objection on that addition?

There was none expressed

SPEAKER ANDRESEN Do you insist on having it referred, Dr Reuling?

DR. REULING No, I don't insist on having it referred, so long as that will be included

DR. WOLFF I should like to know what provision is going to be made for the point I raised

DR. JOHN J MASTERSON, *President-Elect* I think that will have to be decided by each individual county society as to what year he would be entitled to for the remission of his dues in detail

SPEAKER ANDRESEN I think the county societies could settle that We are leaving it to the county society to recommend

DR. WOLFF It is specifically stated that this is to occupy a fiscal year, and I feel that that should be clarified before you act on this resolution

DR. MOORE The Speaker has made it clear that the word "fiscal" should not appear because a per-

Section 93 (*See 29*)

Report of Reference Committee on Report of Council, Part VI Diabetes Detection Drive

DR. THOMAS O GAMBLE, *Albany* The following is a revision of the resolution introduced by Dr Frederick W Williams, of the Bronx County Medical Society, concerning "Diabetes Detection Drive"

"WHEREAS, it is within the province of the American Medical Association on a national, state, and county level to direct public health education and disease detection drives for the public benefit, and

"WHEREAS, lay-directed organizations have taken the leadership in these campaigns, and public fund raising has become a prominent feature of these projects, and

"WHEREAS, the Federal government through the United States Public Health Service has already taken steps in regard to the problem of detection and education in diabetes, and

"WHEREAS, diabetes being neither contagious nor epidemic is not truly a government problem, and

"WHEREAS, the American Diabetes Association, a branch of the profession of medicine, has begun a nation-wide detection drive to be conducted annually and directed solely by members of the medical profession without fund-raising appeals, and

"WHEREAS, the American Diabetes Association has and will carry its detection drive to the people only through the American Medical Association, the state and county societies, therefore be it

"*Resolved*, that the Medical Society of the State of New York record its approval of the Diabetes Association's detection drive, and be it further

"*Resolved*, that the Public Health Committee and the Industrial Medicine Committee of the Medical Society of the State of New York, together with a specially appointed committee for diabetes detection, be instructed to cooperate with the American Diabetes Association and its local associations in conducting diabetes drives in this State, and be it further

"*Resolved*, that the local county medical society, or group of county medical societies, shall determine, in conjunction with the American Diabetes Association, the nature of the local detection drive, and be it further

"*Resolved*, that the delegates to the American Medical Association be instructed to introduce these resolutions at the June, 1949, session of the American Medical Association, or support similar resolutions that may be introduced."

This is the revised resolution, concurred in by the introducer, Dr Williams, and the Committee recommends its adoption

The motion was seconded by several, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 93 (*See 32*)

Report of Reference Committee on Report of Council, Part VI Tenure of Hospital Staff Appointments

DR. THOMAS O GAMBLE, *Albany* Resolution introduced by Dr Alfred P Ingegno, of Kings County, "Tenure of Hospital Staff Appointments," which is also a revised resolution agreed to by the introducer

"WHEREAS, proper and equitable hospital administration should include provisions in hospital bylaws which adequately protect the staff appointments of physicians from capricious or summary termination, particularly after a reasonable probationary period of service or after attainment of appropriate staff rank, be it therefore

"*Resolved*, that the Medical Society of the County of Kings, through its delegates, recommend to the Medical Society of the State of New York that an appropriate committee, working in conjunction with other interested groups, such as the New York Hospital Association, initiate studies to define just and uniform standards for dealing with problems relative to tenure of hospital staff appointments, and other pertinent matters relating to staff appointments"

I move its adoption

The motion was seconded by several, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 94 (*See 49, 144*)

Report of Reference Committee on Report of Council, Part VI Complaint Against the Welfare Department of Nassau County

DR. THOMAS O GAMBLE, *Albany* This is a revision of the resolution introduced by Dr E K Horton, of Nassau County, subject "Complaint Against the Welfare Department of Nassau County"

"WHEREAS, the Nassau County Welfare Department is governed by a policy of the New York State Department of the Federal Social Security Agency, which states that all fees for medical care, rendered patients under their jurisdiction, are included in their regular monthly allowances, and

"WHEREAS, on numerous occasions the part of the allowance for medical care has been withheld from the physician who supplied the services, and

"WHEREAS, the situation is becoming worse, and many physicians are now being paid for services rendered at fees lower than their regular fees, therefore be it

"*Resolved*, that the delegates of the Nassau County Medical Society request the Medical Society of the State of New York to take action in this matter and to bring about the necessary changes in policy by urging the Federal Security Agency to alter its present method of payment so that it will be necessary for patient and physician both to endorse checks for cashing purposes, and be it further

"*Resolved*, that where payment for services rendered has been delinquent through present channels that the physician submit duplicate bills for such services directly to the New York State Department of Social Welfare, since the agency, having authorized such care, is the contracting party and is responsible for fulfillment of the contract"

This is an amended resolution, also concurred in by Dr Horton I move its adoption

DR. AARON KOTTLER, *Kings* I second it

SPEAKER ANDRESEN The motion is to adopt the revised resolution concurred in by the introducer Is there any discussion?

DR. BENJAMIN M BERNSTEIN, *Kings* Many of you will recall we had the same resolution about three or four years ago which we fought in this House to secure, but which was defeated in the fight It was carried on to the American Medical Association, and they also disapproved of the resolution.

Now we are opening the doors to state medicine, if you will. My interpretation of the phrase "so-

should have been $52 40 while for upstate the rate should have been $38 23 The foregoing analysis confirms the view expressed last year that throughout this period the members of the Society have secured their protection for substantially less than a fair rate

"Although our method of calculation differs considerably from that employed in calculating rates from the statistical data maintained by your indemnity representative, our results are substantially the same The chief points of difference lie in the fact that we have not applied an element of probable salvage to the outstanding losses and we have not included any factor for trend As a matter of general principle, we do not agree with the practice of applying any salvage factor to reserves for outstanding cases, because, if reserves are correctly estimated, the salvage factor should be negligible As to trend, we have omitted this factor because, in our opinion, the use of the last five expired policy years should provide its own trend factor

"While the foregoing deals with rates for standard limits, some reference should be made to the percentages utilized in calculating premiums for excess limits The only test which can be applied to this element of the business is whether or not the excess limit rates are reasonable While the loss ratio for excess limits business appears to be reasonable, it must be kept in mind that the excess limits portion of the premium is in the nature of a 'catastrophe' cover In other words, a few large losses may easily turn a moderate profit into a substantial loss

"This audit and actuarial study leads us to the following conclusions

"1 The known data, as represented by the closed vouchers, has been correctly accounted for and carried forward into the statistical data by the Society's indemnity representative

"2 Advantage was taken in the statistical data of salvage factors in arriving at the reserves for outstanding claims and suits before inclusion of these reserves in the loss experience for rate-making purposes

"3 In computing the reserves for the unreported cases, accepted actuarial methods were used in determining both the number of cases which are likely to arise, and the probable cost of disposing of them

"4. Our recommendation of last year, namely, that the last five expired policy years be used for determining current loss costs, has been adopted, and consequently a more realistic picture is presented by the Society's records

"As previously pointed out, the difficulty of rating malpractice insurance is greater than other forms of liability insurance because of the importance of the incurred but not reported cases, which cannot be determined with any mathematical accuracy Such reserves, at best, will always be informed guesses based upon the assumption that history will repeat itself, i.e , that what has happened in the past presents a pattern of what will happen in the future Since it is improbable that this will occur with any exactness, rates predicated on it are more than likely to be too high or too low Some additional adjustment factor appears to be needed to take up the slack or form a cushion for miscalculations in the cost of unreported cases, as well as the natural changes in loss costs which are bound to take place from year to year

"Because of this, there has been introduced into the premium rate a moderate contingent loss fund to provide the necessary cushion. The introduction of this contingent loss factor and its inclusion in the carrying agreement with the Employers Mutuals effective July 1, 1949, may prove to be the step requisite for putting the Society's malpractice insurance rating on a more efficient and sounder basis than at any time in the past"

This, gentlemen, is from Wolfe, Corcoran & Linder, the actuaries It has nothing to do with the Malpractice Insurance and Defense Board Report which will come to you later through the Reference Committee Since Mr Linder himself is not here, I don't believe that it can be profitably made the subject of discussion It is being reported to you, however

Mr Speaker, if there are any technical terms that have been used here, which some member desires to have explained, I may possibly have knowledge enough to explain them, but I am not in a position nor have I the right to attempt to interpret anything that Mr Linder has said

SPEAKER ANDRESEN Are there any such questions?

There was no response

SPEAKER ANDRESEN If not, we thank you, Dr Schiff, for this report.

We will have one more committee report, and then we will have a seventh-inning stretch.

Section 91

Report of Reference Committee on Report of Council, Part II Maternal and Child Welfare

DR. WILLIAM J ORR, *Section Delegate* As your Reference Committee has no resolution referred to it for consideration, our only function was to consider the reports of the Subcommittee on Maternal and Child Welfare as reported in the annual reports. Therefore, your Reference Committee reports as follows The Committee accepts and commends the reports of the Subcommittees on Maternal and Child Welfare as published in the annual reports of the Council of the Medical Society of the State of New York

The Committee further recommends (1) The Medical Society of the State of New York should urge strongly that all hospitals proceed with the fulfillment of the requirements as outlined in Regulation 35 of the Sanitary Code of the State of New York as rapidly as possible (2) The Committee also recommends that a report of the progress made by hospitals in the State in fulfilling these requirements be submitted to the House of Delegates at the next annual meeting

Your Reference Committee moves for the adoption of this report

The motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN We will now allow you a seventh-inning stretch

There was a five-minute recess

SPEAKER ANDRESEN Gentlemen, we have a lot more work to do If we don't get on the job now we will be here until all hours tonight

The next committee report is going to take considerable time Dr Gamble's committee has not only had referred to it the Report of the Council, Part VI, but has had five resolutions as well, so we are going to spend some time on this next report

DR. THOMAS O GAMBLE, *Albany* May I defer the last part of our report until later because that is the only part that will probably provoke a lot of discussion?

SPEAKER ANDRESEN Yes

"*Resolved*, that where payment for services rendered has been delinquent through present channels that the physician submit duplicate bills for such services directly to the New York State Department of Social Welfare, since the agency, having authorized such care, is the contracting party and is responsible for fulfillment of the contract"

SPEAKER ANDRESEN Is there any further discussion?

DR. EDWARD P FLOOD, *Bronx* Mr Speaker and members of the House, Dr Koplowitz suggested that discuss this matter with you from the point of view the Advisory Committee to the Department of Welfare and the Commissioner of Welfare of the ty of New York

You may not be aware of it, but a disgraceful situation has arisen in New York City Large areas populated by racial groups have not been served by physicians in those groups In these cases ere the Federal government contributes to the t of that service, it is impossible for the Department of Welfare to get the neighborhood doctors to e on these cases They are eager, of course, to e on the home relief medical and nursing cases cause the reimbursement is directly from the partment

Commissioner Hilliard came here from Chicago, d that problem was present there Practically ery welfare official in the country is confronted th it to a greater or lesser extent Every welfare ency in the country wants that Federal law ed, and we members of that Advisory Committee, cognizing that it was at the insistence of the medi- l profession that the patient-physician relationship ould not be disturbed by the intervention of a ird party or bureaucrat, and also recognizing the tegrity of the population as a whole, suggested at that method of payment be adopted Of urse, if we find that that method has resulted in rge segments of the population going without medi- l care to which they are entitled, at least we, the embers of the Advisory Committee to the Commissioner of Welfare, are urging the repeal of this gislation The Commissioner is also doing that

The New York State Welfare Agency's representatives who are on that Commission are anxious have the law amended, but it is recognized that, itil the Federal Security Law is revised, that is most impossible of achievement We know if ere is any revision of that law it may be to the etriment not only of the entire medical profession it of the entire population, so I think that at present we will have to recognize that 95 per cent of the eople are honest, and we will have to take our ance on the other 5 per cent. The suggestion is a seful one, the double endorsement, but it is impossible of accomplishment at the present time.

DR. ABRAHAM KOPLOWITZ, *Kings* Mr Speaker nd delegates, I am afraid we are a little confused bout state medicine or compulsory health insurance. Of course we are all opposed to it Some of s have been fighting it since 1919 That is thirty ears, but in all of the various plans that I have eard for compulsory health insurance or voluntary ealth insurance I still have not heard how the indigent are going to be taken care of That is still he government's part of the work. The government will have to pay for it, and that means that ou and I through taxes will have to pay for it if the overnment is going to take on the medical care of he indigent

It seems to me that covering a loophole such as his, where the government pays but the patient keeps the money and the doctor is done out of it, is sensible There is something wrong, and we are trying to correct it Just because we are afraid of socialized medicine in any form, does it mean then that doctors who do work are to be done out of their proper payment? I, for one, can't see that I cannot see why we must be so very much afraid of this bugbear Let us protect ourselves I am not personally interested, the same as most of you are not personally interested, but I remember now for quite a number of years this topic has come up for discussion The ophthalmologists, particularly about ten years ago, were complaining that the patients received checks from the government, and never turned them over to the doctor who rendered services Let us refuse to treat them altogether and be done with it, but if we are going to treat them let us protect ourselves in some fashion The New York City Department of Public Welfare for quite some time, while they pay a little less than the usual fee, do give the doctor the payment for his services directly from the Department

Here they are not asking for that, but they are asking for some form of protection for the doctor I am in favor of that resolution.

SPEAKER ANDRESEN Is there any further discussion?

DR. THOMAS M D'ANGELO, *Queens* I would like to ask, supposing more than one doctor treats a patient, how many endorsements would you need on the check?

SPEAKER ANDRESEN I should think there would be a separate check for each one

DR. GAMBLE I cannot answer the question, but I imagine that the family physician who originally saw the patient, and who has taken care of the patient primarily, would be the one that would sign the check

MEMBER That would be splitting fees then

DR. GAMBLE It is not an attempt to split fees. I don't think one can make that accusation It is not just This Committee felt, as the last speaker said, undoubtedly some patients are refusing to turn over the money to the doctor, money which the government pays them to pay such doctors' bills Even the signing of the check by the doctor does not insure that he is going to be paid, but the doctor at least is going to know that this money has been paid to the person he has taken care of under the welfare system. The only provision that is not contained in this resolution that will really give the doctor a recourse or redress is to appeal directly to the local welfare department As we have stated, this local welfare department has authorized the treatment It is, therefore, the contracting party, and it should pay the bill.

SPEAKER ANDRESEN Is there any further discussion?

DR. SAMUEL Z FREEDMAN, *New York* I would like to discuss this for a minute I think we have to bear in mind one thing in discussing this matter of medical care for the indigent, as to whether or not there shall be a difference in the way payment is made for medical services as compared, for instance, to the way these clients of the welfare department, the indigent, now pay for their rent, their food, their clothing, and for all of their other requirements for which they receive money from the welfare department

If we are to agree that the government, whether it be local, State, or Federal, is to pay the physician directly for services which he may render to the indigent, we must also bear in mind that we are thereby setting a precedent which can come home to

cialization of medicine" embraces payment by the government directly to the doctor for care given to a ward of the government That is what we are trying to do We are asking the government to pay us directly for the care of these people

Somebody said to me yesterday, "Well, doesn't the government pay for these people's shoes and for their groceries?"

Yes, but they do not pay it directly to the shoemaker, to the grocer, or to the butcher They pay it to the recipient, and he in turn pays the grocer, but if he does not he gets no more groceries

However, now we are opening the door too wide Pretty soon we will be placing ourselves in the position of the psychiatrist who was treating a man who said he had vast sums of money coming to him, with a large castle in Spain, and only needed three letters to prove that he deserved these things that were coming to him. "I treated this man for about a year, and I almost had him cured, but finally the letters arrived" I am afraid these letters may arrive as we open the door and try to cure the condition with which we are confronted I have always felt it advisable to shut the door quickly, and keep it closed If the government wants to pay for these people, let them do so by some insurance scheme which we will some day evolve whereby they will have to pay for the indigent and for those unable to pay and for the unemployed.

Of the schemes now provided, whether it be the Taft Bill, the Hill Bill, the Murray Bill, or even the United Medical Service or any other plan, we know none of them provides for those unable to pay for themselves, even when they are unemployed or when they are indigent Let us not open the door too wide. Somebody may walk in, and stay much longer than we want them to

DR. JOSEPH A GEIS, *Essex* On this question that is presented here, if we open the door at all we are going to be sorry We have opposed the idea of any governmental medicine, and one of the steps toward governmental medicine will be direct payment by the government to the doctor We can't eat our cake and have it too Let us be sincere and face this thing We either want state medicine or we don't want it If we want it, O.K , if we don't want it, we don't want it on welfare cases either

SPEAKER ANDRESEN I would like to call on Dr Wood, who is the chairman of our Public Medical Care Committee, to discuss this after which we will call for other discussers

DR. CHRISTOPHER WOOD, *Westchester* Mr Speaker and gentlemen of the House, I think perhaps there is a little misunderstanding about the intent of the resolution as modified by the Reference Committee As I understand it, this does not change our procedure of payment at all It simply recommends that in some way the doctor's name for whom the payment is intended be either included on the check or that in some way the check be directed to him, so there would be more force behind it to have the doctor paid.

As you all recall, this has come up many times previously, and we have always refused to affirm it. We have always voted it down We have always been in favor of the present regulations of the Social Security Board in which payments are made to the recipient of the service

The use of the terms "direct" and "indirect" is always confusing, but under the present regulations the payments are made to the patient, the idea behind that being that the Federal agency has confidence in the integrity of its clients, of the indigent, and they felt that those people were worthy of consideration that they should receive this money and pay their bills for medical services just like they pay any other bill.

We have always felt that we should have confidence in the integrity of the indigents, and our experience in this State has been satisfactory on the whole in that there have not been a marked number or a large number of cases in which payment has not been made There have been, shall we say, many instances but not in a large percentage.

Your Subcommittee has always been in favor of payment to the client, the client paying the doctor—shall we say—secondarily We still feel that way about it, and I think if we change our policy it is certainly a step toward, well, indirect approval of some form of governmental medicine

SPEAKER ANDRESEN Any further discussion?

DR. ALFRED ANGRIST, *Queens* I just want to clarify one point. First, as to the question of the advisability of the government purchasing insurance that was not included in the revised form of this resolution I know that Dr Gamble will bring that matter up as a separate part of his report. We were dealing here with the problem of doctors being paid for services rendered.

On the issue of paying a doctor, the resolution as we reframed it does not alter that procedure. We do not change the method of payment to the client, who in turn must pay the doctor Every member of the committee was in agreement that the doctor should not be paid directly, excluding the client or the indigent patient, but, to forestall existing abuses, which are numerous, it was the consensus of opinion—I think I am formulating this properly—that there would be no harm in including the doctor's name on the check which was going to go to the patient and requiring a double endorsement of both the patient and the doctor on that check, so that at least the doctor would know the patient had received the money, and the patient would then feel some obligation to pay the doctor That was one part of the resolution

MEMBER There is a change in the present procedure then if the doctor's name has to appear on the check as well.

DR. ANGRIST I am sorry, that part of the resolution does require a change in the present procedure, and that was included as a request in the resolution.

Then, secondly, the issue as to whether doctors who were never paid can retain the sum for the services rendered, that is covered in the resolution in that there exists in the present procedure the possibility that the doctor can bill the State agency directly, the Department of Public Welfare I think it is called, or some variant of that, and hold the agency responsible for such payment in that they represent the contracting agency That was part of the discussion, and I think all of those points are covered in the recommendation of the Committee

SPEAKER ANDRESEN I would like to ask Dr Gamble to read the clause that deals with that payment so as to clarify that situation

DR. GAMBLE It reads

"*Resolved*, that the delegates of the Nassau County Medical Society request the Medical Society of the State of New York to take action in this matter and to bring about the necessary changes in policy by urging the Federal Security Agency to alter its present method of payment so that it will be necessary for patient and physician both to endorse checks for cashing purposes, and be it further

in the guest chairs in the rear I am sorry I will not be able to ask him to speak for a few minutes, but I would like him to take a bow Dr Hilleboe, State Commissioner of Health

The delegates applauded as Commissioner Hilleboe rose

Section 96 (See 53)

Report of Reference Committee on Report of Council, Part VI General Practitioners and the Visiting Staffs of General Hospitals

DR. THOMAS O GAMBLE, *Albany* The following is a revision of the resolution introduced by Dr Irving J Sands, of Kings County

"WHEREAS, the general practitioners of medicine have played a dominant role in treating the sick of our country and in maintaining the high level of health of our nation, and

"WHEREAS, the general medical practitioners must constantly keep in touch with the various newer contributions made to the treatment of the sick, and

"WHEREAS, the general medical practitioner needs a hospital in which to send his patients and to acquire skill and experience in the institution of the newer methods of diagnosis and treatment, and

"WHEREAS, certain general hospitals have accepted the plan of limiting membership of their visiting staffs only to specialists in various branches of medicine, be it

"*Resolved*, that it is the consensus of opinion of the House of Delegates of the State of New York that all general hospitals include a reasonable number of general practitioners on their staffs."

I would like to draw your attention to the fact that the original resolution said 30 per cent, which we considered was merely a figure picked out of the air, and it was with the consent of the introducer of this resolution that we substituted "to include a reasonable number of general practitioners on their staffs"

I move the adoption of this resolution

DR. PETER J DI NATALE, *Genesee* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN The recommendation is adopted. Have you anything further?

DR. GAMBLE Yes

SPEAKER ANDRESEN Proceed

Section 97

Report of Reference Committee on Report of Council, Part VI Public Medical Care

DR. THOMAS O GAMBLE, *Albany* This is the part of the report of the Committee that may draw considerable discussion That is the reason I wanted a large number of the House of Delegates present before I presented it, and I purposely delayed it until the last.

Your Reference Committee has studied the report of the Council Committee on Economics, and has approved the statements contained therein. However, your Committee believes that the accomplishment of the State of New York in providing medical care of the highest order can be further improved by the adoption of the following recommendation

That the Federal or State government assist the indigent, including all those who are eligible for old-age assistance, to obtain medical care by purchasing adequate insurance from existing prepayment hospital and medical plans, provided that all voluntary health insurance programs will be entirely in the hands of the State agency acting in consultation with a State Hospital and Medical Care Council and regional hospital and medical care authorities set up in health regions within the State

May I say just a word about this? Your Committee felt that the State of New York, along with the other members of the medical profession in the United States, must not remain static We must present something that we believe is constructive This proposition is included in the ten point program proposed by Dr Engel, president of the Pennsylvania State Medical Society It is included in the Hill Bill Senator Hill, who is a personal friend of mine with whom I went to school and with whom I have corresponded about his bill, recognized when he introduced the Hill-Burton Bill, which was subsequently passed, the danger of the government saying how the hospitals which are to be constructed or where additions are to be made to existing hospitals are to be run. He recognized the danger of the government coming along and saying, "Now, boys, we are going to run these institutions," so he provided in his bill a prohibiting clause, which was acceptable to the American Medical Association and to this State Society, and that prohibiting clause is inserted in this recommendation I would like to read it once more

"provided that all voluntary health insurance programs will be entirely in the hands of the State agency acting in consultation with a State Hospital and Medical Care Council and regional hospital and medical care authorities set up in health regions within the State"

That is the exact wording of Senator Hill's recent bill.

I move the adoption of this recommendation

DR. PETER J DI NATALE, *Genesee* I second it.

There being no discussion, the motion was put to a vote, and was unanimously carried

DR. GAMBLE I move the adoption of the report of Part VI, with the exception of the one resolution which was referred back to the Committee

SPEAKER ANDRESEN I am afraid I will have to rule that you will have to wait until you get through with your Committee report before you make such a motion.

Section 98

Address of William A. Richardson

SPEAKER ANDRESEN I am afraid I will have to interrupt our proceedings for another visitor Of all of the so-called "throwaway" journals that come to our offices, there is one which we don't throw away, but which we read, and that is *Medical Economics* I think I speak for most of us when I say we read that We are honored today to have with us the editor of *Medical Economics* He has been upstairs at the Teaching Day talking about "Britain's Medical Experiment One Year Later," and he has offered to come down here and speak to us and give us a condensation of his talk in ten minutes I take pleasure in introducing Mr William A. Richardson

MR. WILLIAM A. RICHARDSON This is like trying to tell you about everything in five minutes I have been in England and the British Isles generally for the past month directing a study of the National Health Service, and with the help of our correspondents in London and some other people we got in for the occasion we made, I think, a pretty comprehensive study of what is going on in the British Isles, and what the quality of service is that they are giv-

plague us later on when we argue against a third party coming in and paying the bills, because our entire fight against compulsory health insurance is our fear that the government will pay us directly and we will become employes of the government If it is all right to do that in the case of the indigents, what argument can those of us who go out and debate the subject have against this manner of payment being extended to the entire population? If it is wrong in our estimation for the government to pay us directly for one group of patients, it is certainly just as wrong for them to pay us in the matter of the indigent

We have already in the matter of the indigents and the welfare clients had them receive money directly from which they utilize funds to buy their groceries, their clothes, and pay their rent, etc , so why can't that be extended to medical care? In that way we are also establishing a precedent perhaps for implementing arguments for the Taft Bill and other bills of that nature, in which the money will be given to the people but we, as physicians, will have direct contact with the patients and continue our personal relationship

DR. GEIS May I ask a question?

SPEAKER ANDRESEN You may

DR. GEIS Dr Flood said this will take care of about 5 per cent of the welfare patients. If we collect 95 per cent for our welfare patients, aren't we collecting a bigger percentage from them already than we are from our private patients?

DR. JACOB WERNE, *Queens* There is ample precedent for third party payment We have been doing that under workmen's compensation for many years, and none of us has been objecting We have a responsibility in this matter to our members Most of us in the House of Delegates here are not treating these patients We are standing here for this alleged principle of free enterprise, and we are consigning these great areas of patients to the loss of medical service because the general practitioners simply will not go out and take care of these patients when they know they will get gypped out of their fees The analogy drawn between medicine and clothing and groceries does not hold for the simple reason that when they go to the grocer you either pay for your groceries or you don't get them. The same way with rent If you don't pay your rent, the landlord evicts you The physician is called and after he has made his diagnosis or delivered the baby, he cannot very well put it back. I don't think there is any question but that we should meet the facts of life and provide for this endorsement procedure, whereby the physician will at least know the government has paid his patient for the services rendered

DR. JOSEPH L KILEY, *Saratoga* I think we are stepping up the ladder too far when we approach government The higher we go, the worse it gets I happen to know that we have a provision in our county where if the client gets the check and spends the money in a barroom, or poolroom or betting on the horses, it only happens once The men have recourse they know right in the welfare department We do a little investigation, and the next time the doctor is paid direct or the check is held onto and they are sure it goes where it was intended Let us drop this back into our local administration, into our local county societies, because if you keep pitching at this thing you will get somewhere with it.

I heard the suggestion about putting these people in insurance groups The minute you start buying voluntary health insurance for the indigent, the demand for medical care for that class of people will multiply about three times, and you will sabotage your voluntary health plans thereby The man who is industrious, works for a living, pays for his family's expenses, and buys voluntary health protection, is going to have to pay much more if we let the government, as is mentioned in the Lister Hill plans Bill, buy voluntary protection in these non profit for the indigent

I suggest that we forget this thing as far as making it a State-wide resolution, and drop it back in your own local county medical society I know that by talking to your welfare directors it can be done in your own locality without going on record and trying to change this whole proposition as far as checks are concerned

I happen to be the consultant to the welfare department in our county, and I offer to bet any man in the county one hundred dollars that if he took one hundred of our patients and one hundred of his private patients, he would collect more money from the welfare patients for the same amount of treatment at the end of a year than he would from his private patients

Thank you!

SPEAKER ANDRESEN There being no further discussion, we will now put the recommendation to a vote and—

DR. GAMBLE May I say just a word?

SPEAKER ANDRESEN Yes.

DR. GAMBLE I would like to ask the members of my Committee and the House of Delegates if it would be agreeable to you to leave out the first "resolved," namely, that the checks be endorsed by both doctor and the patient, and simply include the final resolution

"*Resolved*, that where payment for services rendered has been delinquent through present channels that the physician submit duplicate bills for such services directly to the New York State Department of Social Welfare, since the agency, having authorized such care, is the contracting party and is responsible for fulfillment of the contract"

If we delete the first resolved of the resolution, and include this latter one, would it be acceptable to my Committee and to the House of Delegates?

DR. FLOOD You will have to amend that to say either the New York State Department of Welfare for upstate people or the Department of Welfare in the New York City area for people down the State, which is autonomous to take care of the New York City cases

SPEAKER ANDRESEN Are you ready for the question?

DR. SAMUEL B BURK, *New York* I move that this matter be referred back to the Committee for clarification

The motion was seconded by several, and as there was no discussion, it was put to a vote, and was carried

SPEAKER ANDRESEN The motion is carried, and it is referred back to the Reference Committee for clarification

Section 95

Presentation of State Health Commissioner Hilleboe

SPEAKER ANDRESEN I asked Dr Gamble to let me interrupt his report for a minute One of the country's great men of medicine, a friend of this Society, with whom we have enjoyed enthusiastic cooperation in our mutual effort to improve the public health, has just entered the room

come brackets, the doctors there, many of them, have lost their private practices, for the most part they have not had any panel patients to carry over into the new scheme, and they are really scratching hard. One man I talked with just about ten days ago told me that he was applying to go to Canada. Whereas great numbers are not yet emigrating, there are quite a few who are thinking of it

One point that ought to be made clear is that no doctor is technically compelled to join the system He can stay out of it technically, but how is he going to live, if there is not enough private practice to support him—and that is the case—how is he going to get by? Well, obviously he cannot, so he is compelled by what one doctor referred to as financial blackmail of the state to come into the system The whole effect, of course, is not to build the men up to a higher level uniformly but to push them down to a common level of mediocrity, and I think that is the greatest drawback of the whole scheme Doctors complain, of course, on a day-to-day basis about the fact that they are not paid enough—that is chief—that they are overworked, and that they are losing their esteem in the eyes of the public, and there seems to be good evidence to support those points The public does not look upon the doctor in quite the same way it did He is now a civil servant He is not always asked to do things, in many cases he is told what to do I think that rubs the average doctor harder, rubs him the wrong way more than perhaps anything else Then, of course, there are many abuses that come up I don't mean to exaggerate these, because in quite a few cases the patients are considerate, but you still hear a lot of complaining about a doctor called to see a patient in a hurry—he got to the house, and he found that the man had a bunion and wanted to know whether it should be removed surgically He could very well have come to the office, and in the old days he would have, but not now

There is no evidence at the moment that doctors are being regimented, at least, I did not find any, but they are very fearful of it. They work under the direction of their local executive councils, and, as I say, while so far they have not been under the thumb particularly, they feel that as time goes on they are going to be

Specialists are doing much better than G P 's, at least financially A new scale of remuneration is coming into effect on the 5th of July this year, and a man starting in a specialty as a full-time worker in a hospital will get at the age of thirty-one a starting salary of $6,800, ranging up above, depending upon his age, to $11,000 There will also be awards for professional distinction. These will range from $2,000 to $10,000, and will be in addition to the basic salary so, by and large, the specialists, while they are not so well off as they were under private practice, are doing much better financially than the G.P 's are, and if something is not done to correct the inequity, the general practitioners are going to become specialists, and there won't be enough G.P 's to go around

Specialists are also paid for what they call domiciliary visits, house calls For such a consultation the specialist gets about $17 If he does any operative procedure, he gets another $8 00, unless it is an O B operation, in which case he gets another $17

Mileage fees are paid in addition to this However, they don't cover any more than the cost of operating the car, as a rule, and there is quite a bit of complaint on the score that the doctor is not paid for the time that he loses in going back and forth from a case that may be some distance from his office, as a matter of fact, if the case is too far off he is going to be disinclined to have any part in it

Perhaps the one conclusion I have come up with after looking at this plan close hand—and this is based largely on costs to G P 's who have seen this thing from both sides, both in the panels and out of them—is that, if we have a plan in this country, perhaps the greatest mistake we could make would be to make it all-inclusive and cover everybody Half the doctors I talked with, if not more, said, "For heaven's sake if you are going to have a scheme like this in the United States, be sure that it is limited to those who cannot afford medical care, and don't cover the others "

Off-the-record talks that I had with people in the Ministry of Health convinced me that the Socialists now in power hope ultimately—this is important I think—to force all British doctors into full-time salaried service in health centers They don't admit it openly, but if you talk to them behind the scenes that is what they will lead you to believe, and I think it is true This would mean putting the medical profession on a civil service status, and of course the crux of the whole argument between the profession and the government is it cannot do what it wants because there are not enough doctors, and there are not enough buildings in which to house them The building program in England is badly bogged down You cannot get a building permit for love nor money, so as a result only one of the health centers that the Government contemplates has been started so far, but that is the thing they are heading for, and if it goes along on that basis I am very much afraid that the example we will have to look at over there will not be an encouraging one to us in this country (*Applause*)

SPEAKER ANDRESEN On behalf of the House of Delegates, I thank you, Mr Richardson, for that illuminating report.

Section 99

Address of Chairman of the Workmen's Compensation Board, Miss Mary Donlon

SPEAKER ANDRESEN I now will ask Dr Kenney to take the rostrum for a moment to introduce another distinguished guest

DR. J STANLEY KENNEY, *Councilor* Mr Speaker and members of the House of Delegates, it is a very distinctive privilege that the Speaker has accorded me to have this opportunity of presenting to you the distinguished lady who is going to speak to you in a few moments As you all know, the Legislature passed the Mailler-Condon Bill. It has been signed by the Governor and is now law, and has become a part of the Workmen's Compensation Law, and is now Article IX of that law The chairman of the Workmen's Compensation Board whose duty it is to administer the provisions of that law has kindly consented to be here today at the invitation of Dr Simpson and talk to you briefly on the important points in this Disability Benefits Law, also to make an important announcement regarding workmen's compensation She has very kindly condescended after her speech to answer any questions that any of you may care to present.

It gives me a great deal of pleasure to present to you the Honorable Mary Donlon, the chairman of the Workmen's Compensation Board of the State of New York.

The delegates arose and applauded.

MISS MARY DONLON Dr Kenney, Dr Simpson, Dr Andresen, ladies and gentlemen, and members of the House of Delegates, I seem to be following Mr Richardson around this morning I said to him as

ing to the public under the new scheme, and equally what effect it is having on the practitioner I cannot do more than give the highest of the high spots, but here goes

The scheme in England, as you probably know, will have its first anniversary on July 5 of this year How is it doing? To us in the United States, facing perhaps a similar scheme, the answer is pretty significant, yet that answer depends, and must depend, rather largely on the observer's personal attitude toward socialization If you go to the British Isles as a socialist, you can find a good many arguments in support of the scheme If you go there, not as a socialist, you can marshal as many arguments against it But you may say, "What do the facts indicate? Surely, they must indicate whether the plan is good or not"

Unfortunately, no There are not enough facts The plan is still so new that the facts, such as they are, are not conclusive, and it probably will not be possible for a number of years really to arrive at a true evaluation of the scheme Meanwhile, the best we can do is to look over what there is and to use our common sense in arriving at least at a tentative evaluation

In order to do this job, and in order to avoid injecting any undue bias into it, we did not do as many investigators have done, go over there and talk to friends of friends We purposely took the Medical Register, picked out every tenth name, and talked to the men whose names appeared on the list after doing that We talked not only to doctors whose names we picked out in this way, but also to the general public, and I think that cross-section was pretty fair too Altogether about three hundred personal interviews were conducted among doctors, the public, the Ministry, and other bodies that might have any information about this

The interviewing took place all over England, Wales, and Scotland. I, personally, made a 2,000 mile tour by car in the principal cities of the British Isles and to many of the small towns and villages

The chief impressions of the scheme we have are these It is giving the people more medical care, but the care is of a relatively low grade. The job being done is thus quantitative not qualitative. The plan is overworking and underpaying the doctor It is a serious threat to his eventual freedom. It should not have been set up, in my opinion, to subsidize the care for the entire population, but simply for the needy There was no evidence we could find that most Britishers, or most Americans for that matter, cannot pay their own medical bills, at least in part. The scheme, as a result of covering everyone, is costing a tremendous sum of money and is going to cost a lot more when it reaches maturity

The big advantage which we have to admit is that the service it has been giving is given to the patient now without any worry about what it is going to cost The doctor can prescribe practically anything he wants, and the patient gets all sorts of benefits that the country at large was not entitled to before. How good those benefits are is, of course, another matter

The principle behind the service then is pretty generally accepted. The real issue is not one of principle but of method What do the British people think of this? Our survey showed most of the Britishers liked the scheme Quite a few are enthusiastic about it. Only one out of every six that we talked with rated it as less than good

The second thing we found out was that the scheme has a lot of drawbacks, and that the people know about those drawbacks Much of their optimism stems from the feeling that these drawbacks are temporary, and that in time patients won't have to wait in queues to see their doctors, and that the quality of the service they get is going to be a lot better

What do the doctors think about it? About three-fifths of the doctors we talked with don't like the scheme They admit advantages to it. They like it from the point of view of what the patient gets. They like being able to prescribe freely and that sort of thing, but by and large they would rather not have it About a fifth we saw liked the scheme, "I don't find much fault with it", the other fifth are on the fence

The Ministry of Health, instead of being fazed by the tremendous costs of the service and the volume of medicine and appliances and services being requested by the Plan, points to this as evidence of the great need that existed before the Plan came into effect A member of the House of Commons just recently said, "What does it matter what it costs, if the needs of our people for medical treatment require such an outlay?" To which another member replied, "What does it matter, indeed? The Americans are paying for it" (*Laughter*)

Without Marshall aid it certainly is unlikely that British could afford the wholesale benefits of the new program. This year the service will cost one and one half billion, or more than ten per cent of Great Britain's entire national budget, and when it matures, we are informed the scheme will probably cost, according to reliable estimates, about two and one half billion dollars or close to fifty dollars a head.

For each national health service patient the government pays the doctor a capitation fee of $3 00 a year, approximately To the shepherds for each breeding ewe it pays $3 30 The doctor who gives superior service under this scheme gets the same capitation fee as the doctor whose work is mediocre The temptation is obvious to do as little as possible There are still plenty of conscientious doctors, and it is fortunate for the country there are How conscientious they will be as time goes on is anybody's guess

The average general practitioner, as far as we could determine has about 2,300 health service patients, but many have the maximum allowed of 4,000 One man I talked with had 4,700 Now, if the average patient under the scheme is attended six times a year—and that is an official figure—the doctor with 4,000 patients may thus undertake 24,000 calls yearly, or 80 calls each working day The average patient who visits a doctor's office gets only about five minutes of his time Many get only a fraction of a minute You say, "How is that possible?" Bad as the picture is, it is not quite as bad as these figures indicate, because a great many of the people who come want a signature on a certificate, or they want a refill of a prescription, so they can be disposed of in a very few seconds That means that there is a little more time at least for those who require other attention

The doctors in the large cities where population is concentrated, and who had large panels under the old panel system, are doing better financially now than they were, and to that extent at least they like the new deal. Men in other areas—and there are a good many of them—where the population is not so concentrated, and who did not handle so many national patients before under the panel plan, are doing relatively worse, and they don't like it, in fact, if you go to some of the places, some of the resort towns, for example, where there used to be quite an accumulation of people in the upper in-

come brackets, the doctors there, many of them, have lost their private practices, for the most part they have not had any panel patients to carry over into the new scheme, and they are really scratching hard. One man I talked with just about ten days ago told me that he was applying to go to Canada. Whereas great numbers are not yet emigrating, there are quite a few who are thinking of it

One point that ought to be made clear is that no doctor is technically compelled to join the system He can stay out of it technically, but how is he going to live, if there is not enough private practice to support him—and that is the case—how is he going to get by? Well, obviously he cannot, so he is compelled by what one doctor referred to as financial blackmail of the state to come into the system The whole effect, of course, is not to build the men up to a higher level uniformly but to push them down to a common level of mediocrity, and I think that is the greatest drawback of the whole scheme Doctors complain, of course, on a day-to-day basis about the fact that they are not paid enough—that is chief—that they are overworked, and that they are losing their esteem in the eyes of the public, and there seems to be good evidence to support those points The public does not look upon the doctor in quite the same way it did. He is now a civil servant He is not always asked to do things, in many cases he is told what to do I think that rubs the average doctor harder, rubs him the wrong way more than perhaps anything else Then, of course, there are many abuses that come up I don't mean to exaggerate these, because in quite a few cases the patients are considerate, but you still hear a lot of complaining about a doctor called to see a patient in a hurry—he got to the house, and he found that the man had a bunion and wanted to know whether it should be removed surgically He could very well have come to the office, and in the old days he would have, but not now

There is no evidence at the moment that doctors are being regimented, at least, I did not find any, but they are very fearful of it. They work under the direction of their local executive councils, and, as I say, while so far they have not been under the thumb particularly, they feel that as time goes on they are going to be

Specialists are doing much better than G P 's, at least financially A new scale of remuneration is coming into effect on the 5th of July this year, and a man starting in a specialty as a full-time worker in a hospital will get at the age of thirty-one a starting salary of $6,800, ranging up above, depending upon his age, to $11,000 There will also be awards for professional distinction. These will range from $2,000 to $10,000, and will be in addition to the basic salary so, by and large, the specialists, while they are not so well off as they were under private practice, are doing much better financially than the G P 's are, and if something is not done to correct the inequity, the general practitioners are going to become specialists, and there won't be enough G.P 's to go around.

Specialists are also paid for what they call domiciliary visits, house calls For such a consultation the specialist gets about $17 If he does any operative procedure, he gets another $8 00, unless it is an O B operation, in which case he gets another $17

Mileage fees are paid in addition to this However, they don't cover any more than the cost of operating the car, as a rule, and there is quite a bit of complaint on the score that the doctor is not paid for the time that he loses in going back and forth from a case that may be some distance from his office, as a matter of fact, if the case is too far off he is going to be disinclined to have any part in it

Perhaps the one conclusion I have come up with after looking at this plan close hand—and this is based largely on costs to G P 's who have seen this thing from both sides, both in the panels and out of them—is that, if we have a plan in this country, perhaps the greatest mistake we could make would be to make it all inclusive and cover everybody Half the doctors I talked with, if not more, said, "For heaven's sake if you are going to have a scheme like this in the United States, be sure that it is limited to those who cannot afford medical care, and don't cover the others"

Off-the-record talks that I had with people in the Ministry of Health convinced me that the Socialists now in power hope ultimately—this is important I think—to force all British doctors into full-time salaried service in health centers They don't admit it openly, but if you talk to them behind the scenes that is what they will lead you to believe, and I think it is true This would mean putting the medical profession on a civil service status, and of course the crux of the whole argument between the profession and the government is it cannot do what it wants because there are not enough doctors, and there are not enough buildings in which to house them The building program in England is badly bogged down You cannot get a building permit for love nor money, so as a result only one of the health centers that the Government contemplates has been started so far, but that is the thing they are heading for, and if it goes along on that basis I am very much afraid that the example we will have to look at over there will not be an encouraging one to us in this country (*Applause*)

SPEAKER ANDRESEN On behalf of the House of Delegates, I thank you, Mr Richardson, for that illuminating report

Section 99

Address of Chairman of the Workmen's Compensation Board, Miss Mary Donlon

SPEAKER ANDRESEN I now will ask Dr Kenney to take the rostrum for a moment to introduce another distinguished guest

DR. J STANLEY KENNEY, *Councilor* Mr Speaker and members of the House of Delegates, it is a very distinctive privilege that the Speaker has accorded me to have this opportunity of presenting to you the distinguished lady who is going to speak to you in a few moments As you all know, the Legislature passed the Mailler-Condon Bill. It has been signed by the Governor and is now law, and has become a part of the Workmen's Compensation Law, and is now Article IX of that law The chairman of the Workmen's Compensation Board whose duty it is to administer the provisions of that law has kindly consented to be here today at the invitation of Dr Simpson and talk to you briefly on the important points in this Disability Benefits Law, also to make an important announcement regarding workmen's compensation She has very kindly condescended after her speech to answer any questions that any of you may care to present

It gives me a great deal of pleasure to present to you the Honorable Mary Donlon, the chairman of the Workmen's Compensation Board of the State of New York.

The delegates arose and applauded.

MISS MARY DONLON Dr Kenney, Dr Simpson, Dr Andresen, ladies and gentlemen, and members of the House of Delegates, I seem to be following Mr Richardson around this morning I said to him as

he was coming along that it was awkward to be pursuing a man as openly as I have been pursuing him today, because I followed him on the program upstairs, and then I came down here to find that I am following him on your program I think, perhaps, that is a good arrangement, because it gives you the opportunity to weigh two entirely different approaches to an important social problem I am convinced that after you have weighed those two approaches you will decide that we here in New York State have made far better progress along sound conservative lines than has been made in England to meet what is essentially in some respects the same problem of need

Dr Kenney said that I would make one announcement to you with regard to workmen's compensation That announcement is that happily after many conferences we were able last week to come to a final agreement with regard to the revised items for the medical fee schedules, which, therefore, were duly filed on April 29 in the office of the Secretary of State, which makes it become effective Our printer has not yet given us the full supply of copies, and they will be mailed gratis to all members of the panel within the next two or three weeks, as soon as received from the printer However, we were able to rush a kind of rough printing of 1,000 copies, and those copies are available for distribution here in the Hotel Statler on the mezzanine floor at the exhibit of the Workmen's Compensation Board We would like very much to have you go up and see our exhibit We would like you to take home with you a copy of the revisions to the schedule, and you can there if you wish leave your name and address and we shall be glad to send you a digest of the new New York State Disability Benefits Law, an official digest which has been prepared, and also to send you as soon as it comes from the printer a copy of this new law, with a rather comprehensive topical index of it

To get to the matter that I am here to discuss with you, this new legislation in New York State about which you have been reading in the papers and hearing on the radio, let me say first of all what I am sure you know that we here in New York State have not enacted a medical care program That is not what this law is This law is essentially what you are accustomed to regard as accident and health insurance provision, namely, a program to extend to workers throughout the State generally the opportunity to receive continued cash income partially to replace wages lost during periods of temporary nonoccupational illness or disability resulting from accidental injury So the first point I wish to make to you is that this does not set up a program of providing medical care It does provide cash income partially to replace wages during periods of temporary disability Briefly, what the law provides is a benefit rate of 50 per cent of lost wages with a maximum of $26 a week during the disability period of 13 weeks during any 52 consecutive calendar week period The program is financed jointly by employers and employes

New York is the fifth of the states to enact a temporary nonoccupational disability benefits program Preceding New York were—and in this order—Rhode Island, which in 1941 passed a law, then followed by California, New Jersey, and the State of Washington, which put her law on the statute books about two weeks before the New York Legislature acted, only to find after the Governor had signed the law up there in the State of Washington that one of the peculiar referendum provisions of the west coast had been brought into play, so now they don't have the law until the voters in November decide whether they want it or not Therefore, you cannot get me to argue with you if you decide that New York is the fifth or New York is the fourth state, because it depends on whether Washington is in or out at the moment

All of the other states followed quite a different pattern in setting up their disability programs from the disability benefits program pattern followed here in New York State Rhode Island, the first of them, has an all-out level tax regardless of cost, one per cent of the first $1,000 of payroll to be collected by the state from employes and the benefits to be paid out by the state California followed that pattern with the last moment amendment thrown into it in the Legislature which has a contracting-out provision so that, subject to certain penalties which the employer has to assume for the privilege of taking out insurance, instead of paying the tax to the state, private insurance is permitted New Jersey also has the contract of provisions New York, on the other hand, approaches this subject quite differently New York believes in the free enterprise system We think America has done pretty well under a concept of private enterprise, with private insurance functioning in the area where insurable hazards can be actuarily computed—and obviously they can be computed in the group accident and health field because something over 50 per cent of the employed persons in New York State are already entitled to some kind of disability benefits under voluntary plans that have been set up either by their employers or sometimes by unions alone, and very often by employers and employes So that New York turns its back in this new legislation on the idea that the best way or the only way to provide these benefits is by a level tax rate That is essentially the basis in the other states That is the philosophy of the bill now pending in Washington so far as disability benefits are concerned, and it is unrealistic It has no relation to actual cost

We feel that the Federal bill now pending extends the errors of the Rhode Island law, where the one per cent of payroll so badly met the obligations of the fund that it has been necessary since that law has been in operation to appropriate an additional $37,000,000, in the State of Rhode Island, a relatively small state, in order to make that fund solvent. The California law and the New Jersey law are still too new in terms of the period of their operation to know whether one per cent of the first $3,000 of payroll is or is not a correct measure of the cost of the disability benefits provided in those states However, one of two things happens with a level tax rate either it is like Rhode Island you don't have enough money and the taxpayers have to make up the difference, or as under our unemployment insurance program you build up more money than you need and, therefore, you have future tax reserves drawn away from a normal consumer market—a very tantalizing temptation to the tax spenders, who feel if there is some money around that some plan should be devised to use it—so that in New York we protect the situation through private insurance utilizing facilities already well established from long experience in providing this very type of benefit We say that the cost charged to the employe shall have a ceiling placed over it so the employe will always know what is the most that he must pay He will pay one half of one per cent of his weekly wages but not in excess of 30 cents a week, and whatever is the additional cost the employer will bear In times of normal employment, in years reasonably free from epidemics and other

serious group illnesses, it is likely that the employer's cost will match the cost of the employe In a more favorable year the employe's share, of course, may be less In a year of severe unemployment, in a year of epidemics, it is unquestionable that the employer's share of the cost will be more than the employe's, but you have the flexibility which will always adapt cost under our New York plan to whatever the actual risks of the situation are So much for our New York law!

There is one other point I would like to make by way of contrast between this and the pending Federal bill, because I think there is a sleeper in that bill that the people generally do not recognize I said earlier that New York's is an accident health insurance program It does not provide medical care In the Federal bill now pending there is a provision that the Director of Federal Security may direct the recipient of benefits to get medical care as a condition of continued right to the benefits How much that would be used, no one knows, but medical care may under that bill be provided to recipients of contemporary disability benefits if the bill is enacted, and the right of the recipient will be cut off if he does not avail himself of the kind of medical care and from the doctor to whose care he is directed by the Federal Security Administrator

Doctors have an important part in any disability benefits program You have that part now under these insured plans so common in industry, the voluntary plans Without the patient's doctor and the doctor for the insurance company, it would be absolutely impossible to know what benefits should be paid, and for how long You people make those decisions because you are qualified to make the determinations which underlie the decision as to what benefits are payable You do that also in workmen's compensation, which is our occupational disability program in New York State Now we must depend on you likewise under this new program

What this program in New York State does that I think the medical profession has not yet fully understood is not merely to put cash income into the hands of those deprived of wages because of temporary total disability that is not an occupational one, but to make it necessary for them to be under the care of a physician if that illness extends beyond seven days, and if they want to collect benefits Under the laws of the other states it is enough that a physician signs the certificate That is not enough under the New York law, therefore, we think that some of the so-called rackets which have developed in Rhode Island and other states will be obviated under this law, and with a sound social result If a man is sick more than seven days, so ill that he cannot go to work, it seems to us it is good for him, for society, and for his family, that he should be placed under the care of a doctor, but it is his doctor who takes care of him, and the only penalty he will suffer is that unless he is under that care he may not collect benefits So that the first provision with respect to doctors is that in order to collect the benefits it is not alone enough that a doctor has signed the certificate, but it is essential that the man shall be under the care of that physician

We are working now, and we shall be working for the next many months I suppose, with groups representing your Society, representing the insurance companies, representing the labor organizations, and representing the employers' groups, in order that the regulations may be as reasonable as possible to comprehend the situations as they appear, and that the forms required to be filed shall be as simple as possible yet give the necessary information.

This is now a new field The practice with the insurance companies will be a guide We will know the information that is necessary in order that the claims can be promptly paid This bill, unlike workmen's compensation—and off the record I think very fortunately unlike workmen's compensation—leaves a very wide area of discretion to the parties concerned to accommodate their differences The claimant is ill, he is under the care of his own physician, his physician files with the insurance company this certificate with respect to the illness, the insurance company physician looks it over, the claims office in the insurance agent checks to be sure the man is an employe of their insured, that this is rate of pay and so on under existing plans 99 50 per cent of all claims are paid in full Less than one half of one per cent of claims under the existing plans which now cover more than 50 per cent of New York State employes are disputed, or rejected, or compromised We hope that ratio maintains We are not looking for a lot of extra work, and to the extent that the doctor who attends the patient and the doctor who represents the insurance company or the self-insured employer can agree on the disabilities, the board is relieved of the obligation under the disability benefits law of passing on the cases

What is set up is a standard for compliance, when the parties cannot work out some different standard for themselves, and the State agency available to adjudicate the claim when there is a dispute We hope there won't be many disputes

There is just one other point—and I see Dr Andresen would like me to sign off—that I would like to make to you about this law, and that is the benefits are paid both to the sick employed and to the sick unemployed, and that the obligation to provide the benefits is directly on the employer, therefore on his insurance carrier during employment and for four weeks therafter, but there is set up a special fund for disability benefits administered by the chairman of the Workmen's Compensation Board which takes care of the payment of benefits thereafter

Thank you very much! I wish there were time to get over to you just this one point New York has done a significant job under the leadership of Governor Dewey this year, I believe, in turning our back on that concept of the state-dominated disability benefits program, back toward the free enterprise system. We can make it work if the medical profession will help us

Thank you! (*Applause*)

The two booklets referred to in Miss Donlon's address, "Digest of New York State Disability Benefits Law, April 1949," and "Workmen's Compensation Board, State of New York, Supplement to Medical Fee Schedule, May 1, 1949," are included in the original copy of these minutes

SPEAKER ANDRESEN We thank you, Miss Donlon, for your beautiful exposition of this new law We are now going to take advantage of your offer to answer questions Are there any questions from the floor?

DR. JOSEPH C O'GORMAN, *Erie* Is it necessary for a doctor to be on the workmen's compensation panel to treat these employes or unemployed? There are many doctors who are on the workmen's compensation panel and are licensed in New York State but don't wish to be on the workmen's compensation panel As I read it in the law a doctor must be on the workmen's compensation panel to treat these patients

MISS DONLON Yes, you are quite right Let me explain that there are much fewer doctors than

you think who are not on the panel We have on the panel 25,000 doctors in round numbers There are in general three groups of doctors—and when I generalize I don't mean to be understood that there are no exceptions, there are of course—there are in New York what we call the Park Avenue practitioner, and a good many of those doctors have never availed themselves of the opportunity of coming on the workmen's compensation panel. There are doctors engaged in research, who have not come on the panel Then in the last six years there have been a very small number of doctors, something like 400, who have been cordially invited to leave the workmen's compensation panel, and who have been rather effectively removed from it So that we have those doctors in general who have not certified for the workmen's compensation panel

The situation in Rhode Island, where there are no controls of any kind with respect to those who treat and certify as to disability benefits, has been something of a scandal, as I think you people know It seemed to us that with some thousand more doctors in New York State available for this than there are in all of England and Scotland under their program we probably would do pretty well, and judging by the number of applicants for authority I judge the doctors have been reading the newspapers, and at July 1, 1950, there won't be very many that won't be there

Dr. O'Gorman We have two questions You know the controversies that exist in workmen's compensation Are we going to have alleged untruthful and incomplete reports in this disability type of thing? The law provides for an investigation—and it sounds as though it is just a mere investigation—by the chairman We think there should be a hearing There is no provision for an appeal by the doctor If somebody says he didn't do this, or he didn't do that, there is no appeal for a hearing Let us assume a doctor is accused of something Under the Workmen's Compensation Law, it provides for an appeal.

Also doctors will have to appear, and the question is whether they be on the ordinary subpoena fee such as exists down in the courts before the referees? Now a doctor can be subpoenaed and paid 50 cents, so the question is will the doctors be reimbursed for appearances before hearing officers on subpoena, that is, will they be paid a fee in excess of the usual subpoena fees as is done before the Workmen's Compensation Board?

Two, a doctor may be suspended from the workmen's compensation panel for submitting untruthful and incomplete reports in a disability claim. The question is why not give him a chance at a hearing as we do in these other places and as we do at present under the Workmen's Compensation Law? That finishes my questions, the two questions that I had

Miss Donlon You are not arguing but asking a question I think I can answer both of them very briefly The Disability Benefits Law is Article IX of the Workmen's Compensation Law, and all of the provisions with respect to the authorizations and disciplinary provisions in regard to doctors in the Workmen's Compensation Law are, therefore, applicable with regard to fees for attendance by doctors. As I am sure you know, the fees with respect to that attendance at hearings are in large part mileage fees, etc, governed by the Civil Practice Act and not by the Workmen's Compensation Law

As to special fees for attendance that is, as you know, a matter of regulation under the Workmen's Compensation Law, not of statute, and I see no reason to apprehend that regulations are not possible under Article IX as under the other articles

Dr. John J Masterson, *President Elect* I think, Mr Speaker, the delegates would like to know from Miss Donlon—if they don't know at the present time—when this law will go into effect and the reasons for putting off its effective date as far as they have

Miss Donlon Dr Masterson has asked what is the date on which this law goes into effect, and what are the reasons for putting that effective date off as far as it is There are four dates really to watch, and I will try to give you those briefly The law became effective on April 13, 1949, and that was important because voluntary plans made by employers and covered in compliance with this law are those which were in existence on that day and are still in existence on July 1, 1950 That is a provision to prevent the chiseling employer from setting up a new submarginal plan, yet at the same time to continue plans that were in existence.

The second date to watch is coming up very soon now, July 1, 1949 That is the date when we begin to determine who are covered employers under the law

The third date to watch is January 1, 1950, when we begin the temporary six months' tax to set up initially the fund for payment of disability benefits to the sick unemployed

The fourth date to watch is the date to which Dr Masterson refers, July 1, 1950, when the law becomes fully effective The permanent financing contributions are to be collected, benefits for disabilities occurring on and after that date will be payable July 1, 1950, and that is when the benefit period begins.

Now why is it as long as that? I think you have seen from the way I have stepped along these dates that there are things which have to be done in order to make a progression of status toward the fully effective date Moreover, it is estimated that there will be at least 170,000 employers in the State of New York who will be within the scope of this act and something more than six million employes who are entitled to benefits under it, so the physical arrangements for getting the administration set up and for having insurance sold to them are quite considerable

Speaker Andresen Are there any further questions?

Dr David M Riskind, *Queens* One of the most controversial of disabilities that occurs in workmen's compensation is the occupational disease case. Is there any provision under this sickness disability law to protect the employe from submitting himself for this type of accident protection in order to avoid the necessity of waiting for a long period of time until his case becomes compensable under the occupational disease?

Miss Donlon I am very glad you asked that question Section 206 of the law, subdivision (2) is expressly designed to take care of the situation which I believe is contemplated in your question, where the question is solely whether or not the disability is occupational or nonoccupational Then this provision of the law provides that during the period when determination of occupational causation is being made the claimant is entitled to his benefits under this law with the right of reimbursement of the different carriers

Thank you very much for bringing out the point, because I had overlooked it

Dr. Nathan Brodie, *Kings* Will you tell us whether any provisions are considered for those who are self-employed, and secondarily, will you expand

briefly on the arrangements of coverage through various carriers?

Miss DONLON Answering first your question with regard to the self-employed, no, this law does not contemplate covering for the self employed This law contemplates covering where the groups of employes are four or more That is the well-known administrative device for having administration reasonable, not that anybody seriously thinks that the person who works in a group of three is less entitled to benefits You just draw the line somewhere, and traditionally four or more is the place where you draw the line

With regard to arrangements for insurance, I am glad you asked that question One of the arguments that has been made against a compulsory provision of this type of benefit in a statute is that we are doing very well, you admit there are more than 50 per cent of the employes covered, why not let it work out? Until you have a broad insurable group it has not been feasible to write this type of group insurance accident health for employed groups of less than 25, and we have in the State of New York something like 80,000 employers who have between four and 25 employes each, and their employes have been deprived of the opportunity of having this type of voluntary insurance Therefore, as a part of this new plan, groups down to four or more will be entitled to get it They can get their insurance or they can make provision to approve self-insurance in much the same way as under the Workmen's Compensation Law except that this insurance can be bought not only from the State Insurance Fund but from any insurance company authorized by the Superintendent of Insurance to write group accident and health insurance in the State of New York, which includes the life insurance companies generally, as well as the casualty companies

SPEAKER ANDRESEN Are there any further questions?

There was no response

SPEAKER ANDRESEN If not, we thank you very much, Miss Donlon

The delegates arose and applauded

SPEAKER ANDRESEN Gentlemen, we have had a hard morning, but we are going to have an even harder afternoon I don't know whether we should continue for another half hour before we go off for lunch Our program calls for a meeting again at two o'clock, so the more time we spend now the less we will have to spend after six o'clock tonight

CHORUS Move we continue for another half hour

SPEAKER ANDRESEN If there is no objection, we will continue Dr Gamble has not finished with his report as yet We have interrupted him twice, so I think we ought to extend him the privilege of finishing it. At the end of that time I am going to again call for resolutions from the floor which will have to be referred to reference committees to consider them during the luncheon hour

Where is Dr Gamble? While Dr Gamble is coming up, I will entertain a resolution from Dr Freedman, of New York

Section 100 (*See 130*)

Medical Specialty Boards—Admission to Examination

DR. SAMUEL Z FREEDMAN, *New York* This resolution has been rewritten at the request of the Reference Committee to which the original one was referred. It concerns "Medical Specialty Boards

"WHEREAS, the specialty boards in the various fields of medicine serve the purpose of setting criteria of scholarship, training and ethics, and

"WHEREAS, certification by a specialty board confers upon a physician recognition of proficiency which is highly regarded by his colleagues and the layman, and

"WHEREAS, to deny to a physician, who meets the basic training, postgraduate, and ethical requirements, entrance to the examination necessary for certification in a specialty withholds from the candidate the recognition in such specialty of his colleagues and the patients he serves, thereby by inference branding him as inferior to those who are certified, and

"WHEREAS, since specialty board certification is an extremely important factor in obtaining admittance to the staffs of most recognized hospitals, the denial of certification to a physician, who meets the basic training, postgraduate, and ethical requirements of the specialty board, accordingly unduly restrains him in the full practice of his profession, now, therefore, be it

Resolved, that the Medical Society of the County of New York recommend that all physicians who are duly licensed to practice medicine in the State of New York, and who meet the basic training, postgraduate, and ethical requirements of a specialty board be admitted to the examination given by the specialty board, and be it further

"*Resolved*, that the secretary of the Medical Society of the County of New York be directed to send copies of this resolution to the president of each specialty board and to the chairman of the Advisory Board of the Medical Specialties, and be it further

"*Resolved*, that the delegates to the Medical Society of the State of New York are hereby instructed to introduce and work for the passage of this resolution in that body and in the House of Delegates"

SPEAKER ANDRESEN That will be referred to the same reference committee as before, Miscellaneous (B), of which Dr Norman S Moore is chairman

Section 101

Revision of the Constitution and Bylaws (General)

DR. LOUIS H BAUER, *Past President* Mr Speaker, I have a resolution which I believe will not require referral to a reference committee but can be acted on by the House

"WHEREAS, it has been twelve years since the Constitution and Bylaws of the Society have been thoroughly revised, and

"WHEREAS, there have been many amendments adopted during that period of time, and

"WHEREAS, the present situation requires further consideration of a general revision, in order to make the Constitution and Bylaws more fully effective in carrying out the work of the Society, therefore be it

"*Resolved*, by the House of Delegates that the Speaker appoint a committee of three to prepare a complete revision of the Constitution and Bylaws, and that this committee be directed to prepare such a revision so that it may be printed in the JOURNAL at least sixty days prior to the next annual meeting, and may be considered by the House at the meeting in 1950"

Mr Speaker I move the adoption of the resolution.

The motion was seconded by several

SPEAKER ANDRESEN Do you feel that that does not need to be referred to a committee?

DR. BAUER I don't see why it has to be I think the House can act on it directly

SPEAKER ANDRESEN All right, the Chair will so rule. Is there any discussion?

The question was called, and the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN In the usual manner of any amendment to the Constitution and Bylaws, it will have to lie over for a year, and be published at least sixty days before the next meeting so that it can be studied by the individual members of the House and the county societies, and discussion can be had here before the Committee on Constitution and Bylaws at the time of the reference committee meetings

DR. THOMAS O GAMBLE, *Albany* May I ask the members of my committee to meet me immediately in the foyer

Section 102

Revision of the Constitution and Bylaws (District Branch Delegates)

DR. CHARLES F MCCARTY, *Kings* After Dr Bauer's resolution which was just passed, whether these are necessary or not, I don't know, but I have them ready

As chairman of the Committee on Credentials I have noticed something that happens regarding delegates, on which I am offering a resolution to amend the Constitution. Number one is—

SPEAKER ANDRESEN In view of the fact that the whole Constitution is going to be amended I think it will be more proper for you to suggest those to the committee that is going to do the amending rather than bring it up at this time

Section 103

Introduction of Delegate from Medical Society of the State of New Jersey

SPEAKER ANDRESEN Yesterday morning I called upon delegates from our neighboring states, and asked if any were here to come to the platform I am informed that Dr Norton, who is the representative from New Jersey, and who I believe is president of the Medical Society of the State of New Jersey, is here. I am going to ask Dr Kenney to escort Dr Norton to the rostrum to say a few words to us.

Dr J Stanley Kenney, of New York, escorted Dr James F Norton to the rostrum amid applause.

DR. JAMES F NORTON Mr Speaker and members of the House of Delegates of the Medical Society of the State of New York, as president of the Medical Society of the State of New Jersey I bring you greetings in this, your annual meeting I am sure that this meeting, like our own held recently, is geared to the very serious thought of the threat that confronts American medicine. You have heard a ot about it, and you will hear more I am sure during your deliberations, as to how best this threat can be turned back I am confident that we have by far the better side of the position, and I am very hopeful that if we properly and adequately get across to the people of this country the inefficiencies and the inequities and the imperfections in any type of a monopoly of the practice of medicine as threatens us now under compulsory health insurance in sharp contrast to the voluntary plans that your Society as well as ours are very earnestly sponsoring, the intelligence of the average run of the American people will cause them to decide in our favor

I bid you Godspeed in your deliberations, and I hope that out of this session will come what we expect something worth while in the interests of organized medicine It was a pleasure to be with you (*Applause*)

SPEAKER ANDRESEN We thank you, Dr Norton.

Section 104 (*See 159*)

Bond Issue for the Building of Hospitals in New York City

DR. WILLIAM B RAWLS, *New York* Before presenting the report of my Reference Committee, I have a resolution to offer

"WHEREAS, the City of New York has proposed a program for the building of new and the renovation of old municipal hospitals, and

"WHEREAS, this program is very necessary for the welfare of the indigent sick in New York City, and

"WHEREAS, it will be necessary to raise this money by a bond issue, and

"WHEREAS, under the present economic situation it will be necessary to obtain an amendment to the Constitution of the State, therefore be it

"*Resolved*, that the House of Delegates approve of the proposed amendment of the Constitution of the State

"*Resolved*, that section seven of article eight of the Constitution be amended by adding thereto a new paragraph, to be paragraph D, to read as follows

'the aggregate of indebtedness initially contracted from time to time after January first, nineteen hundred fifty, for the construction, reconstruction and equipment of city hospitals, not exceeding the sum of one hundred fifty million dollars Any indebtedness thereafter contracted in excess of such sum for such purposes, other than indebtedness contracted to refund indebtedness excluded pursuant to this paragraph, shall not be so excluded'

"*Resolved* (if the Senate concur), that the foregoing amendment be submitted to the people for approval at the general election to be held in the year nineteen hundred forty-nine in accordance with the provisions of the election law"

SPEAKER ANDRESEN Referred to Reference Committee on Miscellaneous Business (A), of which Dr Eggston is the chairman Dr Eggston has a lot to do but we will give him more

Section 105 (*See 12*)

Report of Reference Committee on Report of Council, Part IX Legislation

DR. WILLIAM B RAWLS, *New York* The Reference Committee has reviewed the work accomplished by the Committee on Legislation, and wish to commend them for their work. Your Reference Committee, however, would not be honest if they did not tell you that they view with misgivings our failure in the legislative field during the past year They are particularly concerned about our inability to secure the passage of bills that are advantageous to the health of the people of this State, and our inability to secure the defeat of those that are detrimental to the health of the people of this State They believe that as a whole we have fared rather badly during the past year

The Committee is deeply concerned over the apparent apathy of the legislative committees of the various counties. On some of the most controversial issues, only 26 out of 61 counties replied when asked for information by the legislative committee of this Society The Committee urges that every

delegate here return to his own society with the determination that an alert and active legislative committee be established

It is the opinion of this Committee that the accomplishments of our Society in the field of legislative matters are far from what we believe can be accomplished We further believe that with our present setup we will be unable to secure the results that we are convinced this Society is capable of attaining

The Committee recommends that the Council devise ways and means to secure a closer relationship with the various county legislative committees so that the actions of these committees be more closely correlated in order that recommendations made in reference to proposed legislation shall be supported by all the legislative committees throughout the State.

The Committee believes that in order to obtain these objectives it is necessary to augment our staff in Albany to the end that a closer and more effective relationship with the legislators may be achieved.

I move the approval of the report this far

The motion was seconded by several, and as there was no discussion, the motion was put to a vote, and was unanimously carried.

DR. RAWLS Your Reference Committee wishes to offer the following resolution

"*Resolved*, that the staff in Albany be augmented, preferably by someone well-versed in legislative matters and in public relations, in order that a closer and more effective contact with the legislators may be maintained"

I move its approval

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 106 (See 72, 181, 193)

Report of Reference Committee on Report of Council, Part IX Basic Science Law

DR. WILLIAM B RAWLS, *New York* Resolutions introduced by Dr Charles Gullo in reference to the basic science law

"WHEREAS, the injunctive procedure for the control of illegal practice failed of being enacted at the last session of the Legislature, and

"WHEREAS, illegal practice in New York State constitutes a serious menace to public health, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York recommend that through proper channels to have introduced a bill at the next session of the New York State Legislature which will incorporate the principle of the basic science law, namely, that anyone, without any exemptions whatsoever, who holds himself qualified to treat the sick must take an examination in those sciences which are basic in all schools of practice of the healing art This applies whether the law provides for licensure or not, unless he is expressly exempted, and be it further

"*Resolved*, that any basic science law granting any exemptions to anyone under any circumstances be actively opposed by this Society"

This is a revised resolution agreed to by the introducer of the resolution, and I move its approval.

The motion was seconded.

SPEAKER ANDRESEN The revised resolution has been moved. Is there any discussion?

DR. EZRA A. WOLFF, *Queens* Are we to understand if we go on record as approving this resolution we will have approved the adoption of a basic science law?

DR. RAWLS Correct

DR. WOLFF If that is so, I would like to discuss the matter

SPEAKER ANDRESEN Come right up to the microphone and then we will hear you

DR. WOLFF Mr Chairman and members of the House, annually the problem of the basic science law has been the subject of prolonged debate on the floor of this House Annually the proposition has been rejected as unsound In one of the most recent of the Council committee reports that same attitude was held, but the prophets of doom have recurrently forecast that the chiropractic bill is certain of passage next year We are told that the legislators are tired of the problem, and that they will license chiropractors in order to rid themselves of the problem One suggested remedy is the passage of a basic science law which, according to its proponents, will drive chiropractors from the State by making it difficult for them to be licensed

Furthermore, it is claimed that standards will be raised so there will be no incentive for the training of chiropractors, and potential candidates will study medicine instead, that ultimately then the chiropractor and other healing cults will be exterminated

Cursory thought might make this seem feasible, but on closer scrutiny there are numerous faults in the proposed remedy In the first place, while you can easily pass a basic science law, will it do what it is supposed to do? Standards will be lowered rather than raised, I am sure, since the present standards under our present law are higher than those which are incorporated in any operative basic science law

Then a second point is What makes anybody think that a basic science law could be enforced any better than our present law is, since the main difficulty apparently with the enforcement of our present law is that we have no machinery for its enforcement? That is what we are told—that there are not enough personnel to go around and pick up these irregular practitioners If we can get them for a new law, why can't we get them for what we have at present?

Has the licensing of chiropractors under any means or any type of law in 44 states thus far raised the level of their education or of their standards? I don't know that there is any evidence that proves to me at least that this has occurred.

How about the grandfather clause? Do even the most rabid of the advocates of a basic science law feel that there is any practical chance for the passage of a basic science law that would exclude the present irregular practitioners? I doubt it very sincerely, and I think that it is sort of a tongue-in-the-cheek attitude to assume that we can go on record as favoring a basic science law which would be practical as far as the politicians are concerned and which could be passed On the other hand, if you passed a basic science law which licensed the existing chiropractors, you would be defeating your own objective In spite of the fact that it is felt that ultimately it would weed them out, ultimately is a long time off when it comes to waiting for three thousand or more chiropractors to disappear

Another group of proponents of basic science are the self-styled practical group The burden of their argument is that since passage of the chiropractic bill is inevitable, we may as well make the best of the situation by controlling licensure through a basic

science law Is not this stand really a rationalization of an attempt to rid ourselves of a distasteful and burdensome yearly legislative struggle on the assumption that following the achievement of a basic science law we are going to be able to sit back smugly and let the law take its course and ultimately be entirely freed of this persistent nuisance of irregular practitioners? But it overlooks the most fundamental of all considerations—that its recognition by whatever name you want to call it is of a system which not one of us here believes has any slightest shred of merit or basic scientific truth Regardless of how expedient or how politic the measure may be, or how it may ultimately work for the good of the public, if we advocate its passage, we will have forfeited all right to the claim that we are motivated by consideration of the public welfare, and we will be placed in the light of opportunists who are seizing at a mechanism for destroying competition in order to advance our own interest and espousing hypocrisy toward a public we are pledged to protect (*Applause*)

Dr. Homer J Knickerbocker, *Ontario* The principal reason why the chiropractors want to be licensed is to eliminate the influx of migrant men from other states who are incompetent and cannot pass their own states' examinations It is a self-preservation proposition on their part Our present law is idealistic but ineffectual, and the chiropractors will certainly beat us if we don't do something to undermine their stand.

I recently talked with one of the senators, and our conference resulted in about this much He was asked how about the resistance a legislator might be expected to put up toward any bill, and he said that when a man went to Albany he was supposed to sit in a chair and get calluses in the seat of his pants, as a matter of fact, he sat in a chair and got callused all over, to the point where he had very little respect for any plea for anything that he could not consistently follow

If we get busy and do something to increase our effectiveness in our legislative program by an around-the-year importuning of even the candidates for Assembly and the Senate we will lay a foundation which will do something for us Whether basic science law will do the trick or not, I think no one can tell until it is tried, but at least we might better try it (*Applause*)

Dr. Benjamin M Bernstein, *Kings* Could I be heard?

Speaker Andresen Yes, after Dr Rawls

Dr. Rawls Before the start of the next speaker—we did not have in mind the chiropractors alone For example, the naturopaths are now clamoring for recognition, and there are others clamoring for recognition We had in mind all those who are classed by us as being beyond the pale of recognition, as quacks

Dr. Bernstein It has taken many years for the National Board of Medical Examiners to perfect a licensing examination which will be accepted by 45 states out of the 48 We are now in New York State going to try to arrange the same kind of a barrier that Florida has and some other few states that are trying to keep not the chiropractors out but to keep the doctors out These men who pass the National Board of Medical Examiners are competent, qualified, well-trained doctors, and they should be permitted to practice medicine in New York State

The belief that we can keep out chiropractors, or naturopaths, or others by adopting the basic science law to me sounds rather foolish because, after all, you know to try to stop a chiropractor practicing medicine is not feasible when he never did practice medicine He always has, and always will, try to substitute chiropractic for medicine. That is the argument, and if we stop talking about chiropractors practicing medicine, we will be a darned sight better off in trying to prevent them from substituting chiropractic for medicine. I can't see where any basic science law which permits them to take this examination is O K., that if you pass this examination you are all right. That would be a terrible, terrible blunder As I said to one of the men in our county who is interested in antichiropractic efforts, the matter could be cleared up considerably if he would say to any legislator he approached, "If you had your boy ill on the field of battle, would you want him treated by a doctor or by a chiropractor?" It always seems to me we can make this more realistic from that point of view, and if we will do that, we can accomplish a darned sight more

Dr. Samuel Schneierson, *Bronx* Mr Speaker and fellow delegates, I think there can be no question about the fact as to what our objective is here in relation to this problem As in relation to other problems, we are primarily concerned with the maintenance of, and more precisely with the improvement of, the medical care which the citizens of this State deserve So it follows as a corollary that in connection with this resolution and its consideration we have to decide only one thing Will we by our endorsement of this resolution secure a better quality of medical care for the citizens of this State, or will we advocate a measure which will ultimately lead to the deterioration of adequate medical care and health?

It strikes me that for many years the chiropractors have engaged in a steadfast and perhaps even in an effective campaign to secure some measure of recognition of their kind of work, even if that is a euphemism among the people of this State May it not be that this is merely an attempt to do on their part as recent dictators have done in the past to divide and conquer, to divide the problem, first, so that there will be from the outset recognition, and then with that gain in recent history proceed further onto the next step in what might not turn out to be an effective battle It would seem to me in the consideration of this problem that unless we can be convinced that this measure is in accordance with our best precepts, if there is any doubt even among those who may have some inclination to endorse this project—if there is any doubt at all on the part of the gentlemen here assembled—we have no alternative but to reject this resolution. In speaking here this afternoon, gentlemen, I am authorized to convey to you the unanimous opinion of our delegation that this resolution should at this time be rejected

Speaker Andresen Is there any further discussion.

Dr. Norman S Moore, *Tompkins* As one who first met the impact of the basic science law idea in this House of Delegates, I cannot refrain from a few remarks to let you know that for nearly ten years since this came up, and I was chairman of the reference committee that considered it, and we spent one whole day in this House of Delegates battling the pros and cons, and since that day there has been committee after committee appointed to study it, there have been reviews by Dr Hannon when he was secretary to the State Board of Medical Examiners, and he has given the results of his detailed studies before this House, so has Dr Lochner,

and the opinions of some of the members who have been on special committees to study the feasibility of a basic science law and who are interested in medical education have also been reported in this House, yet this proposition has always been turned down. If this House capitulates to this resolution, they will rue the day when their sons and daughters have to be judged by the people on the medical examining boards who are going to get medical student certificates, because this thing is a fact in other states and has never been reported correctly in this House of Delegates I feel this is a very serious crisis to put before us immediately before luncheon, therefore, Mr Speaker, I offer a motion to defer action on this until after luncheon

The motion was seconded by several, and as there was no discussion, the motion to defer was put to a vote and was unanimously carried

SPEAKER ANDRESEN We are adjourned until 2 o'clock

The session adjourned at 1 00 P M , to reconvene at 2 00 P M

TUESDAY AFTERNOON

May 3, 1949

The session reconvened at 2 00 P M

SPEAKER ANDRESEN I will ask Dr Rawls to continue.

DR. RAWLS Gentlemen, I would like to move that further consideration of the resolution being discussed before we adjourned on the basic science law be deferred until tomorrow morning until Dr Lochner, the secretary of the State Board of Medical Examiners, can be heard He cannot be here this afternoon.

SPEAKER ANDRESEN Do I hear a second?

DR. SAMUEL B BURK, *New York* I will second it.

SPEAKER ANDRESEN Is there any discussion?

DR. FREDERICK S WETHERELL, *Onondaga* We have all heard Dr Lochner many times, and I know that all of us know just about what Dr Lochner is going to say I see no reason why we should necessarily have men outside of this House discuss this subject with us any longer I object also for other reasons to this delay, namely, that Dr Lochner was here this morning, was he not, or am I mistaken in that?

DR. RAWLS Dr Lochner was here, but he had to lecture at 1 30 This report was supposed to be put on when Dr Lochner could be here to speak, but due to our guests this morning it could not be, and he had to leave before it was disposed of

DR. WETHERELL I entered a room last night, where Dr Lochner had been speaking to half a dozen men, and when I appeared all was silence I may be out of order, but I just do not like in any respect this business of registered lobbying

SPEAKER ANDRESEN Is there any further discussion of the motion to postpone action on this resolution?

DR. JACOB WERNE, *Queens* I take exception to the remarks of the last speaker I have heard Dr Lochner speak for the good of practicing doctors of medicine in this State, and if by the term "lobbyist" you connote somebody of ill repute, that certainly does not fit the bill with him There is no requirement, so far as I know, whereby any man who wants to lobby for anything here, or argue, or in any way be a proponent or an exponent or antagonist for any issue has to register with anybody This is not Washington, D C , this is Buffalo I am against the basic science law nevertheless—

SPEAKER ANDRESEN This is a motion to postpone action.

DR. WERNE I still say we should postpone it and hear the man who is in charge of licensure and examination in this State He certainly can give us something to think about

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN Very well, the motion is carried, and action will be postponed on this resolution until tomorrow morning

Section 107 (*See 52, 161*)

Report of Reference Committee on Report of Council, Part IX To Amend the Education Law in Relation to the Practice of Psychiatry

DR WILLIAM B RAWLS, *New York* The next is a resolution presented by Dr Irving J Sands, of Kings

(*Resolution given in full—Section 52*)

I move its approval

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried.

Section 108 (*See 71*)

Report of Reference Committee on Report of Council, Part IX Injunctive Relief Procedure

DR. WILLIAM B RAWLS, *New York* Resolution introduced on behalf of Dr Solomon Schussheim, of Kings, which resolution has passed the House once before I believe

(*Resolution given in full—Section 71*)

Your Reference Committee approves of this resolution, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 109 (*See 65*)

Report of Reference Committee on Report of Council, Part IX Legislation—Larger Committee, News Releases

DR. WILLIAM B RAWLS, *New York* Resolution introduced by Dr Aaron Kottler, of Kings

(*Resolution given in full—Section 65*)

I move its approval

The motion was seconded

SPEAKER ANDRESEN Part of this has already been carried out in regard to the Legislative Committee, but I see no harm in having the motion brought before the House Is there any discussion?

The question was called, and the motion was put to a vote, and was unanimously carried

Section 110 (*See 37*)

Report of Reference Committee of Report on Council, Part IX Representative of the Five Counties to Be Included in the Committee on Legislation

DR. WILLIAM B RAWLS, *New York* Resolution introduced by Dr Margaret Janeway, New York

(*Resolution given in full—Section 37*)

science law Is not this stand really a rationalization of an attempt to rid ourselves of a distasteful and burdensome yearly legislative struggle on the assumption that following the achievement of a basic science law we are going to be able to sit back smugly and let the law take its course and ultimately be entirely freed of this persistent nuisance of irregular practitioners? But it overlooks the most fundamental of all considerations—that its recognition by whatever name you want to call it is of a system which not one of us here believes has any slightest shred of merit or basic scientific truth Regardless of how expedient or how politic the measure may be, or how it may ultimately work for the good of the public, if we advocate its passage, we will have forfeited all right to the claim that we are motivated by consideration of the public welfare, and we will be placed in the light of opportunists who are seizing at a mechanism for destroying competition in order to advance our own interest and espousing hypocrisy toward a public we are pledged to protect (*Applause*)

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oard review the fee schedule at from one- to two-ear intervals so as to make it representative of the revailing rate of medical fees throughout the State move the adoption of this recommendation

The motion was seconded.

DR. J STANLEY KENNEY, *New York* I believe hat there will be a conference this fall on this ques-ion of the revision of the fee schedule for general ractitioners I have a qu ispromise to that effect hat it will be done

The question was called, and the motion was ut to a vote, and was unanimously carried

DR. DURYEE With the tendency for an increased demand for specialty ratings by physicians throughout the State, it is important that the qualifications of each applicant be carefully checked. While the qualifying boards may accept certification by an American specialty board as evidence of competence in a special field, the lack of certification should not disqualify a physician who is otherwise qualified in accordance with the standards for specialization set up by our Committee.

We also urge the Council to request the Legislative Committee to introduce legislation to bring about a fairer method of arbitration based upon the method in vogue throughout the rest of the State of disputed medical bills in the four counties having a population of over one million now under the jurisdiction of the Medical Practice Committee

Your Committee recommends to the Council that the Legislative Committee again introduce and obtain support for an amendment to Section 13(g)2 of the Workmen's Compensation Law to provide for arbitration of disputed medical bills in the county where the medical services were rendered

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. DURYEE We recommend that the Council instruct the Legislative Committee to obtain support for and push a bill to abolish the Medical Practice Committee and transfer their functions to the county societies

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. DURYEE Your Committee approves the report on thoracic surgery and recommends to the Council that they request the chairman of the Workmen's Compensation Board to approve and list this subspecialty under the symbol M-17

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. DURYEE One more recommendation, and we are through.

We approve the section on group practice in the report and recommend that the provisions of the Workmen's Compensation Law be brought in line with the provisions of the Education Law concerning group practice.

I might clarify that Under the Workmen's Compensation Law a group cannot bill for services that any one member rendered but the bills must be rendered by individuals With the new Education Law the group can bill as a group for services rendered, so there is a conflict in the law that should be straightened out, and that is the reason for that recommendation

I move its adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. DURYEE We approve the Committee report on Rule 19 in so far as it applies to fees collected by hospitals for services rendered by pathologists, physical therapy physicians, and anesthesiologists

Your Committee is pleased to endorse the felicitations of the Committee for the cooperation afforded by the Workmen's Compensation Board, Miss Mary Donlon, chairman, and of the district administrators and other officials of the Workmen's Compensation Board It also approves the sentiments concerning the Compensation Insurance Rating Board, Mr Henry Sayer, chairman, and concerning Mr Irving Salferman in charge of arbitrations for the insurance carriers

Your Committee wishes to commend the chairman of the Committee, Dr J Stanley Kenney, his associates and the director of the Bureau, Dr David J Kalisch, for their efficient and devoted attention to their duties during the past year We also wish to commend the office staff of the Bureau for their faithfulness and devotion to their duties

I move this report be accepted as a whole

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 115 (*See 10*)

Report of Reference Committee on Report of Council, Part VII Medical Care Insurance

DR. GUY S PHILBRICK, *Niagara* Your Reference Committee has studied the report of the Subcommittee on Medical Expense Insurance of the Council Committee on Economics We commend the Subcommittee for the careful and thorough analysis it made of the proposals formulated by the Blue Cross-Blue Shield Commissions for a Blue Cross-Blue Shield Association and a Blue Cross-Blue Shield Health Service, Inc , at its October 14, 1948, meeting, and for the action taken disapproving these proposals

Your Reference Committee recommends approval of the efforts of the Subcommittee in laying the groundwork for the establishment of a State-wide contract to be administered by the six New York State approved plans, and hopes this will be an accomplished fact in the very near future

Your Reference Committee recommends approval of the Subcommittee's recommendation through the Council Committee on Economics that approval be extended to the six New York State Plans for another year, as follows

United Medical Service, Inc.	New York City
Genesee Valley Medical Care, Inc	Rochester
Central New York Medical Plan, Inc	Syracuse
Medical and Surgical Care, Inc	Utica
Northeastern New York Medical Service	Albany
Western New York Medical Plan, Inc	Buffalo

Your Reference Committee studied with a great deal of interest the report of the activities of Mr George P Farrell, director of the Bureau of Medical Care Insurance, and commends him for his efforts and accomplishments

Your Reference Committee especially commends the following activities

(1) The quarterly reports on the progress of the plans are comprehensive and instructive and reveal the great strides made in increase of membership and financial stability of the plans during 1948

(2) During the year, he has continued, at an accelerated pace, the program of publicizing to the

Your Reference Committee disapproves of this resolution on the ground that this has been covered in a previous resolution, just passed

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously adopted.

SPEAKER ANDRESEN You will take up tomorrow morning that portion of your report that had to do with the basic science law

DR. RAWLS Yes

SPEAKER ANDRESEN Are there any further original resolutions, which we might have to refer to reference committees for consideration? Does anybody wish to make a resolution?

There was no response

Section 111 (*See 67*)

Report of Reference Committee on Report of Council, Part X Increase of Fees in Physical Medicine for Workmen's Compensation Cases

DR A WILBUR DURYEE, *New York* Mr Speaker and members of the House, your Reference Committee has three resolutions that were submitted to it Mary Donlon stole some of our thunder by bringing out a revised fee schedule, which was available for the first time this morning I have a copy of it before me at the moment, but I have not had a chance to discuss it with the sponsors of these resolutions However, if the Speaker orders we can act on these resolutions, and if there is any conflict with the new fee schedule it will automatically adjust itself

SPEAKER ANDRESEN Right

DR. DURYEE The first resolution introduced by Dr Madge C L McGuinness, of New York

(*Resolution given in full—Section 67*)

I move its adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 112 (*See 55*)

Report of Reference Committee on Report of Council, Part X Radiology Workmen's Compensation Fees

DR. A. WILBUR DURYEE, *New York* Resolution submitted by Dr Charles Muzzicato, of New York.

(*Resolution given in full—Section 55*)

I move its adoption

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 113 (*See 38*)

Report of Reference Committee on Report of Council, Part X Free Choice of Physicians for Federal Employes

DR. A WILBUR DURYEE, *New York* The third resolution was introduced by the Advisory Subcommittee of Workmen's Compensation by Dr Guy S Philbrick, of Niagara.

(*Resolution given in full—Section 38*)

I move its adoption, Mr Speaker

DR. CLARENCE G BANDLER, *New York* I second it

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 114

Report of Reference Committee on Report of Council, Part X Workmen's Compensation

DR. A. WILBUR DURYEE, *New York* I now have the main report.

Your Reference Committee has reviewed in tail the report of the Council Committee on Wo men's Compensation We approve in general full report which covers the year's activities of Bureau of Workmen's Compensation and the Co cil Committee Certain sections of the report be discussed in detail with recommendations m where indicated.

Your Committee recommends the continuation the present structure of the Council Committee the Advisory Subcommittee representative of districts of the State This latter committee affo a good liaison between the county societies and Council committee until such time as a constitutio amendment decrees otherwise

This morning that constitutional amendment w passed, so I believe this particular recommendat will not be necessary Is that right, Mr Speak

SPEAKER ANDRESEN I believe so I think th can be left out

DR. DURYEE We approve the section on the si plification of report forms and recommend that t Council of the Medical Society of the State of N York request the formation of a committee consi ing of representatives of the Council Committee Workmen's Compensation or the director of Wor men's Compensation, of insurance carriers, e ployers, and the Workmen's Compensation Board study and recommend the simplification propos We again urge all physicians to make every effort report cases promptly and in detail

I move the adoption of this recommendation

The motion was seconded, and as there w no discussion, the motion was put to a vote, and w unanimously carried

DR. DURYEE Your Committee approves the se tion on the quality of medical care and on rehabi tation and urges that physicians throughout th State do everything in their power to improve th quality of medical care rendered injured workme including the use of consultants wherever indicate

Your Committee approves Section 4, which urg the prompt rendering of bills for medical and surgic services

The section concerning the functions of the Work men's Compensation Bureau has covered in deta the scope and duties of the Bureau It is importa to point out that the Bureau is at the service of ever doctor in the State who practices under the Work men's Compensation Law for both consultation an assistance, and physicians are urged to avail them selves of the service

We have studied the section of the fee schedul and strongly urge the chairman of the Workmen' Compensation Board to issue a statement on the dis puted points in the new fee schedule as soon as pos sible, so that physicians throughout the State ma have a guide in their charges for medical service rendered (This fee schedule was brought out b Miss Donlon this morning) Furthermore, w strongly recommend that the fees of the genera practitioner be increased to meet the present-da costs of conducting medical practice and in accord ance with prevailing rates in private practice

There are several recommendations that deal with the same subject, so I will continue, and I think they can be voted on as a whole

Therefore, a recommendation is in order for the increase of fees to the general practitioners I move this recommendation be adopted

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. DURYEE We approve and recommend that the chairman of the Workmen's Compensation

addition, I hated to disagree with a fellow director of mine in the United Medical Service

First of all, to correct some factual misconceptions, the American Medical Association did not refuse the principle of a national insurance company They turned down a specific company that was recommended, which would have been ultimately controlled by nonmedical personnel They rejected a specific insurance company but did recommend national enrolment

This whole question is shot through and through with political implications No one can fail to have noticed the rise in power of labor Labor is the motivating force in national contracts They wish to negotiate at the top level with Ford and General Motors for an over-all insurance

I do not visualize any particular dangers in this rather innocuous resolution It is an expression of opinion What I am more concerned about is that you and I will lack audacity and imagination, that we will fail to realize that in times of changed technics we need new answers to these vast complicated problems We cannot sit indolently here We must move forward, or a lot of other men will carry these banners

In essence what does this resolution propose? It proposes that great employers with vast organizations and with agencies in twenty or thirty states will have the means of being enrolled in an insurance company That insurance must in the nature of things be an indemnity insurance They can enroll out of Chicago or Detroit for any employes living in our area down in New York, and we would provide them with those benefits that are in our policies It means nothing more nor less than that If the employe went into the State of Nevada, there is no plan there, and they would have to pay on an indemnity basis for such services as that state presented. Of far more reaching importance, gentlemen, is that medical men control Blue Shield. This resolution proposes that through all the echelons of organization, and operation, and administration, it shall be in the control of medical men At the higher echelon the Blue Shield would purchase certain operational functions that are done by the Blue Cross They would be independent contractors for services

It is possible to extend the Blue Cross and the Blue Shield. We have about seventy prepayment medical plans in the United States and one hundred sixty different contracts We can write any contract that anybody wants, but it has to be sold at a premium that people will pay For example, there are noninsurable contracts A man seventy-eight or eighty, or even eighty-seven, may want to purchase a contract, an annuity of $1,000 a month, but his premium would be $999, so it has a noninsurable quality On the other hand, we have to be particularly zealous that when we have prepaid medical plans we mean that they are doctors' plans, and United Medical Service proposes to put into its fee schedule remuneration for the five specialties that are now being offered in some hospital contracts

I see no reason why this resolution should not prevail. It is a step forward. If we could anticipate all of the misgivings that life has for us, we should retire to some cave and not move lest the passing winds of controversy bother us, but if we want to move forward dynamically let us embrace the opportunity and measure our strength and estimate our greatness (*Applause*)

DR. WILLIAM B RAWLS, *New York* I would like to correct one misinterpretation here, and that is this does not propose turning over any of the voluntary plans that now exist to this national plan

I would also like to point out that one of the greatest criticisms we have today is that we have no national plan. Only last month I received a letter from a United States Senator who has appeared on the radio and television against compulsory health insurance, asking us, "When are you going to have a national plan ready, because we believe that is what you should have?" Also it will help very much in our fight against compulsory health insurance

I can see no reason why we cannot explore the possibility That is all this resolution asks for, that we go ahead and try to do something If we are always going to be too timid to take any step forward we might as well give up at the present time and say, "Gentlemen, give us compulsory health insurance because we are too timid to try to do anything on our own" I think that has been our greatest trouble in the past, and it is about time that we realized we have to take a step forward, because if nothing is ventured, nothing certainly is ever gained

I heartily approve of, and recommend the passing of, this resolution

The question was called, and the motion was put to a vote, and was carried

Section 120 (*See 34*)

Report of Reference Committee on Report of Council, Part VII Voluntary Health Insurance (National Plan)

DR. GUY S PHILBRICK, *Niagara* The fifth and last resolution was introduced by Dr Felix Ottaviano, of Madison

(*Resolution given in full—Section 34*)

Your Reference Committee recognizes and is in sympathy with the objectives desired in the resolution, but we also recognize that the American Medical Association cannot go into the insurance business For this reason, and this reason only, we recommend disapproval of this resolution

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried

DR. PHILBRICK I now move adoption of the report of the Reference Committee on Report of the Council Part VII, as a whole

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN Thank you, Dr Philbrick.

Section 121 (*See 9*)

Report of Reference Committee on Report and Supplementary Reports of Malpractice Insurance and Defense Board

DR. ABRAHAM KOPLOWITZ, *Kings* First of all, I would like to express my thanks to Dr McGarvey, Dr Guess, and Dr Shea, the key members of the Committee that met with me here and discussed our report, and for the help that they so generously gave The other member was not here for unavoidable reasons, and his substitute did not appear

Your Reference Committee on the Annual and Supplementary Reports of the Malpractice Insurance and Defense Board has studied these reports carefully, and is extremely gratified to observe the intimate knowledge which the Board evinces in this subject and the care they have given to this matter which is so vitally important to the membership in the practice of its profession

The figures presented seem to be in accordance

doctors and the public the various aspects of medical care insurance by many personal appearances before professional and lay groups

(3) He has attended many county, State and national meetings pertaining to medical care insurance and kept the Subcommittee on Medical Expense Insurance informed on the progress in this field.

Your Reference Committee recommends a vote of thanks to Dr A. H Aaron, chairman, and the members of the Subcommittee on Medical Expense Insurance, and to Mr George P Farrell, director of the Bureau of Medical Care Insurance, for a job well done

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 116 (*See 46*)

Report of Reference Committee on Report of Council, Part VII Opposition to Imposing Compulsory Health Insurance on American People

DR. GUY S PHILBRICK, *Niagara* There are five resolutions that were referred to this Reference Committee The first is that presented by Dr Floyd S Winslow, of the Medical Society of the County of Monroe

(*Resolution given in full—Section 46*)

Your Reference Committee approves this resolution, and I move its adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 117 (*See 41*)

Report of Reference Committee on Report of Council, Part VII Medical Indemnity Payments

DR. GUY S PHILBRICK, *Niagara* The second resolution is that introduced by Dr Anthony Galluccio, delegate from the Bronx County Medical Society

(*Resolution given in full—Section 41*)

Your Reference Committee approves this resolution, and I move its adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried

Section 118 (*See 50*)

Report of Reference Committee on Report of Council, Part VII Voluntary Sickness and Hospital Insurance

DR. GUY S PHILBRICK, *Niagara* The third resolution was presented by Dr C J C Parsons, of the Westchester County Medical Society

(*Resolution given in full—Section 50*)

Your Reference Committee approves of this resolution, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 119 (*See 38*)

Report of Reference Committee on Report of Council, Part VII Voluntary Health Insurance (National Enrolment Agency)

DR GUY S PHILBRICK, *Niagara* Resolution introduced by Dr G W McAuliffe, of New York County

(*Resolution given in full—Section 38*)

Your Reference Committee approves this resolution with the addition to the last sentence of words "for their approval of this plan."

At this time I request the Speaker to allow Gordon Heyd to speak for a few minutes in explanation of this

SPEAKER ANDRESEN Dr Heyd, will you come to discuss this for us?

DR. CHAS GORDON HEYD, *Past President* I have no comment The recommendation is quite clear Mr Chairman

DR. PHILBRICK I move its adoption

The motion was seconded by several.

SPEAKER ANDRESEN Is there any discussion?

DR. THOMAS M D'ANGELO, *Queens* I would like to know, first, what the committee's report is on the resolution

SPEAKER ANDRESEN They say they favor it.

DR. PHILBRICK I move the approval of this resolution

DR D'ANGELO Mr Speaker and members of the House, on the face of it this resolution seems a perfectly innocuous one, and one that could very easily be carried and approved Certainly a national enrolment agency is a necessary thing at the present time because there are a number of large corporations who have employes in various states of the union and these corporations would like to enroll their employes and insure them in one bunch. However because of the fact that they pay taxes in different states of the Union they have not asked the government to be allowed to pay the taxes all in one state and distribute them throughout the different states We feel that such an enrolment agency would be a good thing, nobody seems to have much objection to that, but now we come to the crux of the matter, and that is a national insurance company, because that is exactly what that implies. This, gentlemen, is a very difficult proposition I don't say it cannot be done, but I think its benefits would be far outweighed by its faults The United States is a very large country Conditions are quite different in Maine than they are in Mississippi, Florida, and the State of Washington It would be very difficult to sell the same benefits throughout the entire nation. Furthermore, as the top corporation was proposed last year, within five years the medical profession would have lost complete control of it.

There are many voluntary insurance plans throughout the United States today that are progressing favorably Such an insurance company, as advised in this resolution, I believe would practically wipe out our present local plans We don't even know yet what type of contract is necessary I don't know how many plans there are—there may be some eighty-odd plans throughout the United States—but I will bet there are over one hundred fifty contracts being sold. This is all in an experimental stage, and I strenuously oppose turning over our successful local plans to a national agency at present

Furthermore, the American Medical Association is studying this problem right now Last year it went on record as being opposed to a national insurance company The problem has had continuous study, and I am sure that Dr Heyd will be glad to give you some more information

I was going to move at this juncture that no action be taken at this time, but I am afraid such a motion would prohibit any further debate Therefore, I reserve the right to make it later on

DR. CHAS GORDON HEYD Mr Speaker and members of the House, I intended to remain silent because the resolution is its own expression of intent In

Your Committee approves these proposals of the Board, and I move their adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. KOPLOWITZ Last year the House of Delegates adopted a resolution introduced by Dr Frederick S Wetherell, of Onondaga County, which asked for a study of the Alameda County (California) public relations and malpractice claim prevention plan The resolution read as follows

"*Resolved*, that the Council of the Medical Society of the State of New York be instructed to study the Alameda County Plan, and as soon as feasible to institute procedures which will end in the employment of measures of like nature in the constituent county societies or district branches of the Medical Society of the State of New York"

At the request of the Council, the Malpractice Insurance and Defense Board not only complied with this directive, but also investigated the Los Angeles County claim prevention plan and inquired into what is being done in the States of Connecticut and New Jersey in this matter

The Alameda County plan is the most ambitious of all because, in addition to claim prevention, it covers many other fields of medical service to the community which would be almost revolutionary in most of our counties Your Reference Committee feels, however, that if it were possible, this type of medical service would improve public relations far more than any propaganda campaign

The Los Angeles County Medical Association has an enrolment of about 3,500 doctors who serve a population which compares with our largest metropolitan counties This Association has a plan which is not so comprehensive, although it is said to have fathered the Alameda County setup Some of their claim prevention program, however, might lend itself to adoption by our county societies, with such variations as may be necessary to fit local conditions

Both plans aim to prevent malpractice claims at the source. We consider it wise to repeat

"Reduced to its simplest terms, the claim prevention program can be described as based upon the theory that an injured patient is entitled, without cost to him, to whatever corrective procedures are necessary to repair the damage, whether the doctor was right or wrong, and that he is entitled to reasonable reimbursement for loss of time and for pain and suffering if, in the considered judgment of the medical experts, the doctor was at fault If the doctor was not at fault, any payment beyond the cost of the corrective treatments is resisted solidly by the entire county organization This theory can easily be stated but to put it into practical application requires a great deal of organization, hard work, discipline, and close cooperation between the county organization, the members, their legal service, and their insurance company"

To illustrate their method of procedure, the Los Angeles County Medical Association cited a case in which a neurosurgeon was flown to Los Angeles from Washington, D C , to repair the nerves and tendons of a boy's hand, which had been severed in two places Complete function and use of the hand was restored. The cost of the repairs was probably high, but very small compared with the cost of damages which might have been assessed against the responsible doctor by a jury if the repair had not been made

In Connecticut and New Jersey the state and county societies have set up committees whose duty it is to review and comment on threatened malpractice suits While not in any way approaching the efforts of our west coast brethren, these states have recognized the obligation of the profession to prevent malpractice claims at the source, so far as possible It is well to remember in this connection that none of these organizations has a scientific insurance plan managed by members of the organization comparable with our Malpractice Insurance and Defense Board

The plans of Alameda and Los Angeles Counties strike one as far more than claim prevention, they actually serve a most altruistic purpose in correcting mistakes, both avoidable and unavoidable, thus preventing serious damage to individuals and in that way entirely fulfilling the obligation of the profession to its patients

The Board has obtained permission from the Council of the State Society to inaugurate claim prevention measures through pilot committees to be established in certain selected counties In discussing the plan with the Malpractice Insurance and Defense Board, we are impressed with their plan to inaugurate this in one county, until, by the process of trial and error, a plan that can work will evolve Your Reference Committee fervently hopes that from this beginning we shall be able to develop plans to safeguard the best interests of both our patients and ourselves Needless to say, such a program must necessarily take some time before it will show its effects on the insurance rates

I move the adoption of the report as a whole

DR. HARRY C GUESS, *Erie* I second it

SPEAKER ANDRESEN The adoption of the report as a whole has been moved. Is there any discussion?

DR. THOMAS F MCCARTHY, *Bronx* Mr Speaker, several years ago you recall Bronx County seemingly annoyed the House of Delegates by working on the malpractice insurance proposition in this State You may also have noticed in the last year or two that Bronx County has not been annoying the House of Delegates The reason for that is that I come here to commend the Malpractice Insurance and Defense Board for its very efficient work and because of the fact that they have now recognized that what we were trying to maintain for several years exists, that there was, and is, a very definite problem, and that they are working to correct it, so there is certainly nothing we can do but commend them for their work.

The question was called, and the motion was put to a vote, and was unanimously carried.

Section 122

Report of Reference Committee on Report of Legal Counsel

DR. ABRAHAM KOPLOWITZ, *Kings* Your Reference Committee has also studied the report of the counsel.

Mr William F Martin, your Society's counsel, and Mr Clearwater, the attorney for the Society, and their staff, have continued their work for the Society We note that during the year two new men have been added to their staff, one of whom has medical as well as legal training, which should add to the efficiency of the staff, and should be beneficial.

We wish to point out as a preliminary statement in connection with defense and malpractice litigation that, as your counsel has noted in his report, much of that litigation is obviously the result of

with conditions as they prevail today and not in great variance with those of last year

We are happy to learn that the Board has succeeded in concluding an agreement for our group insurance with so reliable a company as the Employers Mutual Liability Insurance Company of Wisconsin Also, we note with interest the introduction into the agreement with the company of a provision for a contingent loss reserve, and we join with the Board in hoping that this will be a solution of the difficult problem of equitably rating malpractice insurance We welcome the Employers Mutual into partnership with the Society On inspection of the master policy issued to the Society, we definitely can state that our policies will be nonassessable

We say this because some of our delegates were afraid that a mutual company in case of difficulty might require an assessment from its policyholders There is a definite provision which will prevent that

After last year's report of the Board, we are sure that a great many of us are not quite happy with the knowledge that the Yorkshire Indemnity Company, which has served us so well, would not continue and was carrying us on a temporary basis

Your Committee had reason to feel that the sudden and large increase in rates of last year was fully understood by the membership, as evidenced by the unanimous approval of last year's report by the House of Delegates However, we still hear occasionally from doctors who report that they can get their insurance cheaper and who want to know why they should not avail themselves of the opportunity Some of them do not yet realize that insurance is what it means, and that if protection is less than perfect, it is worthless

Your Reference Committee feels that too much emphasis cannot be placed on the fact that our rates are fixed by our Board together with the Company, after careful analysis of the actuarial facts In working out the new rates, which will be effective July 1, 1949, the Board did so with responsible heads of the Employers Mutual Liability Insurance Company and not some local agent, and the negotiations were predicated on the findings and report of our consulting actuaries, Messrs Wolfe, Corcoran, and Linder

The annual report begins by discussing the major problems of the Board, of which the first and most important, because it tinctures everything else, is our rising loss costs The Board's analysis is careful and factual as far as common sense can make it so The increase in rates from 1921 to today, during which the cost of $5,000 of insurance rose from $18 to $55, can easily be understood by us when we realize the tremendous rise in law suits against doctors The chairman of your Reference Committee can remember the time when few physicians thought of malpractice insurance, it was unheard of by the majority of doctors

The unprecedented rise in living standards of our population has brought about a condition where most of our voluntary hospitals today fill their beds, in great measure, with private cases who pay their doctors Patients expect more, and the courts hold medical men to a stricter accountability for their acts

In the beginning of our insurance era claims were few, but some of us saw a marked decrease as time went on and wondered how long it would be before the threat of malpractice suits would become a formidable factor in the practice of medicine

The growth in the field of insurance generally has made the public claim-conscious Knowledge on the part of the public that doctors carry malpractice insurance results in suits being instituted and pressed that might never have arisen against individual, uninsured doctors Courts and juries are likewise aware of the insurance factor and act accordingly in their decisions and awards The rising cost of living and the cheapness of money are also influences to be reckoned with.

The report stresses the preventable causes of many malpractice claims and lays them, quite properly it seems, at our own door The cases cited in last year's report amply illustrate how careful doctors have to pay for the untrained and careless ones The Board emphasizes that behind every malpractice claim is a dissatisfied patient Our attention is called to the fact that sympathetic handling, real careful care, that is, living up to the requirements of the "personal relationship between doctor and patient" which we stress so much, will prevent a good many suits, even though the results may not be entirely happy We cannot quarrel with that. Preventable claims must be stopped at the source, if at all possible

Last year the Board was granted authority to deny renewal of insurance to members found guilty of acts for which no excuse, in common decency, can be found The Council has additional authority to limit the amount of insurance a member may have or to deny it altogether to doctors whose medical procedures, conduct or attitude, in the opinion of competent medical opinion, is a burden to the group plan more hazardous than it should carry The Board now asks that the powers now divided between the Board and the Council in such manner be centralized by the addition of certain paragraphs to Section II of the Regulations Governing Malpractice Defense and Group Insurance, as follows

> "The authority to limit the amount of insurance protection granted to any member and the authority to withdraw the privilege of renewal of indemnity insurance under the group plan under conditions hereinabove stated is hereby delegated to the Malpractice Insurance and Defense Board and shall be one of the duties of the Board.
>
> "The Board may, in lieu of withdrawing the privilege of renewal of insurance from a member under the conditions stated, order that a deductible average clause in some given amount be applied to the renewal of such insurance
>
> "Any member whose insurance is affected by a decision of the Board shall have the right of appeal to the Council The decision of the Council shall be final"

The attention of the delegates is called to the proposed use of the deductible average clause when approved by the Insurance Department We are familiar with the working of deductible clauses in our automobile insurance, but this is a new concept in malpractice insurance

The introduction of this idea in malpractice insurance should act as a deterrent to those of us who may be inclined to carelessness in evaluating our ability or in the conduct of our practice The few doctors whose insurance will carry this clause will still be left with full protection beyond the deductions provided. In addition, your Reference Committee considers it desirable to point out that the application of these punitive measures will not be applied by an outside agency, but by a committee of our own choosing, brothers in the profession, the Malpractice Insurance and Defense Board of the State Society It is presumably unnecessary to add that the utmost care will be exercised to give each member of the Society full justice and the benefit of any doubt

to produce the volume with due economy Production costs have increased tremendously Publishing contracts are difficult to secure, and *Directory* advertising has poor sales value Our neighboring societies of New Jersey and Connecticut have refused to contribute to the cost of the *Directory* Few members of the Society as a whole appreciate these difficulties, and this Committee should like to commend the Publication Committee for a job well done Valuable as is the *Directory*, your Committee questions if this value warrants a deficit of over $80,000 It would appear that approximately one-seventh of the dues income of the Society is committed to this activity It is the largest single item of expenditure appearing in the budget This seems disproportionate at this time when the need for education of both physician and the public in the dangers of advancing socialism should be the prime activity of our organization

The Board of Trustees recommends that the *Directory* be published once in every four years instead of every two years with publication of a supplement once in the intervening two years

Your Reference Committee questions the value of such a supplement, and, while the cost of the arrangement would undoubtedly reduce the annual deficit, we do not think the value of such a supplementary publication sufficient to warrant the outlay

Deficits of this magnitude cannot be allowed to recur with maintenance of solvency of our financial position Therefore, it would appear that if publication of the *Directory* is to be continued during this present era of high costs, an increase in dues of the Society is an immediate necessity Your Reference Committee would suggest as a compromise that the House of Delegates approve publication of the *Directory* once every three years, omitting publication of any supplement, the listings in this new *Directory* being confined to physicians of New York State only, leaving out practitioners of New Jersey and Connecticut

Mr Speaker, I move the adoption of this recommendation

The motion was seconded by several

SPEAKER ANDRESEN Is there any discussion?

DR. ABRAHAM RABINER, *Kings* It seems to me that this is too important a matter to be passed off lightly This *Directory* is of great service to all physicians I am reminded of the fact that in one of the national scientific associations as part of our annual dues we were to receive each year a volume of the transactions When times became difficult, the volume continued, and was presented each year as heretofore, but instead of issuing that volume as part of the dues, every member very gladly paid $5 00 or $10 00 for each volume

I, therefore, suggest an amendment to the motion that the *Directory* be issued as heretofore every two years, but that every member or anybody wishing to buy the book pay for it.

DR. KOPLOWITZ I second that amendment

DR. JAMES F ROONEY, *Trustee* Mr Speaker and gentlemen of the House, as I understand it you are directing that the *Directory* be issued every two years That is the purport of the recommendation, am I not correct, Mr Speaker?

CHORUS No

SPEAKER ANDRESEN The amendment was every two years, and we are now discussing the amendment

DR. ROONEY The amendment was to change it to every two years and to charge each member who wants a copy?

DR. RABINER Correct

DR. ROONEY If you have looked over the expenditures of the Society for the last two *Directories*, you will realize the very great cost that has been incurred in publishing them, especially this last edition The cost was estimated to approximate $60,000 in toto It has come to approximately $144,000, which is over half of the total income in any one year for the Society One of the major desires on the part of the publications group of the Society is the securing of advertising to cut down the cost to the Society

There is a very large section of this State in which the *Directory* is not very widely used There is one section in which it is extremely important and is most necessary The Trustees have discussed this matter and have discussed it quite considerably, within the last year especially It has seemed to us, and we have taken no official action upon it because it is a matter of policy, and we are not charged and rightly have no function to perform with the continuing policy of the Society except in the preservation of our financial stability, that it would be much wiser instead of this House attempting to fix a matter that will come within the purview of the expenses of the Society two years from now or three years from now, to place the question as to the times and the intervals in which the *Directory* should be published in the hands of the Council as a continuing affair, with the Council reporting to the House each year as to whether or not they feel that the *Directory* should be published in an ensuing year or should continue in the hands of the next Council to be published at their recommendation to the House

There is one factor that must be considered, and that is this The long intervals between the publications of the *Directory* mean that an entirely new office force has to be collected approximately a year in advance for the collection of the material

I am not going to speak in approval or disapproval of the recommendations of your committee, except that I feel the wiser thing would be to follow the plan I have outlined to you I am not going to propose an amendment, but I hope that there will be some member of the House who will propose such an amendment so that this matter and the time of publication will be referred to the Council with power for this Council and the next Council to decide upon the times of publication.

There is one thing that we do know, gentlemen, and that is this—and I hope that some member of the Publication Committee will speak to it—we have altogether, as estimated, approximately in the neighborhood of 7,000 changes a year, minor or major throughout the State There has been some talk about putting out annual supplements It will cost at least approximately one third of the cost of the *Directory* to put out an annual supplement, and there will be no income from advertising

It seems to me in a matter as important as this that it would be better to refer this to the Council, giving them the power to recommend to the next House when the *Directory* should next be published.

SPEAKER ANDRESEN We are discussing the amendment made by Dr Rabiner, which was seconded by Dr Koplowitz

DR. KOPLOWITZ Mr Speaker and gentlemen, I have seconded this amendment because I have been thinking of it for a good long while Our *Directory* is not just a telephone directory, and it is not just a city directory It is a directory giving a man's qualifications I find it important almost at every office hour to refer to it Occasionally a patient will tell me so-and-so, and I like to look it up and see who

careless, hasty, and needless remarks by one physician concerning the work of another Such criticism should be avoided, and each member of the profession should always bear in mind how readily a patient can be stimulated to institute a malpractice claim.

In his work, your counsel has defended the malpractice actions brought against members insured under the group plan sponsored by the Society, and has also been called upon to defend a considerable number of members who were without insurance Your Reference Committee points out that these men must have realized the desirability of carrying malpractice insurance under the Society's group plan when they were confronted with the realities of malpractice litigation.

We note that during the year your counsel has disposed of 140 actual malpractice actions, together with a number of claims There have been instituted during the same period of time 203 new actions These actions are on the increase over the past few years We find that the number of new actions is considerably greater than during the war years, but that it is comparable with the amount of work handled prior to the war

We note particularly the important decision obtained by your counsel during the year, which was finally determined by the Appellate Courts to the effect that a surgeon may not automatically be held liable for the negligent acts of hospital personnel.

Your counsel and Mr Clearwater have, during the year, done a vast amount of work handling the legal aspects of the many problems which arise in connection with the administration of the affairs of the Society They attend the meetings of the Council and Board of Trustees and many committees of the Society and devote considerable time to advising various individual members who consult them concerning medicolegal problems of all sorts

In concluding, your Reference Committee recommends that the report of your legal counsel be approved and that he be commended for the efficient manner in which he and his staff have handled the legal affairs of the Society and the legal aspects of malpractice defense

We move the adoption of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Koplowitz!

Section 123

Report of Reference Committee on Report of Treasurer

DR. STEPHEN R MONTEITH, *Rockland* Your Reference Committee on Report of the Treasurer wishes to commend your treasurer for his report, and further thank him for comparative reports published showing the financial growth of our Society during the past twenty years

It is gratifying also to note that the accumulated assets of the War Memorial Fund have by the close of the fiscal year of 1948 reached beyond the halfway mark of the proposed accumulation

Examination of the published report of the Publication Committee with the estimate contained therein of a deficit of $84,000 for publication of the *Directory* and of the possible deficit arising from operation of the JOURNAL would seem to take care of the treasurer's question, "Why should we always be adding to our surplus?" Your committee will join the treasurer in not answering the query and agree thoroughly with him on the advisability of maintaining a surplus

The one recommendation made by the treasurer is the authorization by the House of Delegates of the furnishing of forms to the component county societies in reporting uniformly dues and assessments to the State Society Your Reference Committee heartily endorses this proposal and so recommends.

Your Reference Committee should also like to commend Dr Reuling for his efficient service, and to express the thanks of our Society to him and to the assistant treasurer for their excellent services to the Society

I move the adoption of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 124 (See 8, 133, 139)

Report of Reference Committee on Report and Supplementary Report of Board of Trustees

DR. STEPHEN R MONTEITH, *Rockland*

The Reference Committee on Report of the Board of Trustees should first like to open its remarks with an expression of sorrow at the passing of that genial servant of the Society, the late Dr Albert Gartner of Buffalo

Your Board of Trustees is heartily to be commended for their zeal in handling the affairs of the Society Your Reference Committee is heartily in agreement with their interpretation of the function of the Board of Trustees as expressed in the printed report, and we should like to quote from that report their definition

> "A trustee is responsible for the proper administration of funds or property entrusted to him for the benefit of others It is a duty to prevent waste, exercise due conservatism, to evaluate proposed expenditure, and to avoid use of the concept that cheapness is the sole measure of economy"

We feel that our Board of Trustees has competently and sincerely performed its function We believe that the funds of the Society are competently managed, and we approve of the way in which these funds are distributed and handled.

We approve of the action of the Board of Trustees in increasing the retainer paid to our legal counsel and the increase in his annual expense allowance

Your Reference Committee would like to call attention of the House to the two recommendations made by the Board of Trustees First, the admonition given to committees of the Council, and we might add the House of Delegates, to live within their budgets, and secondly, that the individual members observe the regulation calling for presentation of itemized bills for expenditures incurred within the prescribed thirty-day period.

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. MONTEITH This is on the supplementary report of the Board of Trustees

Your Reference Committee has considered the question of the frequency of publication of the *Directory* which is the subject of the supplementary report of the Board of Trustees Publication of the *Directory* is a valuable activity to which the Society is committed.

The Publication Committee has labored arduously

DR. FREEDMAN I will second that

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN That matter of the *Directory* then will be taken up later when the Publication Committee reports.

We will hear one more report before we declare a ten-minute recess.

Section 125 (See 7, 174, 177)

Report of Reference Committee on Report of the Secretary

DR. FREDERICK W WILLIAMS Concerning the Report of the Secretary, your Committee wishes to report that the statistics on membership as published were the statistics as of January 1, 1949 The published number of 834 delinquent members for 1948 would give the impression that this delinquency produced a loss in membership from 21,303 for January 1, 1948, to 21,171 as of January 1, 1949 This is explained, however, as being due to a variation in fiscal policy between some of county societies and the State Society By March 1949, the delinquency number was reduced to 284 which would bring the total membership to 21,721 and by May 1, 1949, our total membership was 22,520 This is definitely the largest membership in the history of our Society This is truly sound, progressive growth. Your Committee suggests, however, that the Secretary hereafter report the membership statistics more correctly—that is a typographical error, it should be currently—currently than of the calendar year—there has been some mistake in the typing here. I will ask a recess to get it straightened out It has been mistyped.

SPEAKER ANDRESEN Dr Williams wishes to be excused until he gets his report corrected

We will have a ten-minute recess

At this point there was a ten-minute recess.

SPEAKER ANDRESEN The House will be in order

Section 126 (See 13)

Report of Reference Committee on Report of Council, Part XII Miscellaneous

DR. JOSEPH A. GEIS, *Essex* First of all, I want to thank Dr Gullo, Dr Babbage, Dr Wolff, and Dr Loughran who worked so long and so hard with me yesterday afternoon in going over these matters

This is the report of the Reference Committee on Report of the Council, Part XII, Miscellaneous

(A) Convention—Your Reference Committee notes the report of the Council Committee on Convention, and feels that the last convention was one of the best ever held. It showed excellent forethought and planning This House owes its thanks to the subcommittee doing the work. Dr Mitchell will be missed at this and future conventions

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GEIS Continuing

(B) Nursing Education—Your Reference Committee approves the action of your Council Committee on Nursing Education in supporting the effort to have the 1941 Nursing Law put into effect this year

We also note the question of change in the education and duties of nurses, both R.N and practical This matter requires serious consideration by each and every physician in the State.

The Committee feels that the time is here for the State Society to take a stand and investigate the nursing situation It is felt that there are many extraneous factors included in nursing education that are unnecessary, expensive, and of no value in the making of a good nurse. The time has come to reiterate the stand that the R.N go back to nursing and be less of an administrator

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GEIS Continuing

(C) Woman's Auxiliary—The work of the Auxiliary has been increasing annually since it was organized. During the past year Mrs Neptune has averaged one meeting a week. We thoroughly approve the idea of the district meetings, and if we show one half the enthusiasm of the women the attendance at our district meetings will be doubled The average member of the State Society does not realize the work that the women are doing We recommend that a vote of thanks be extended to the Auxiliary and that the Secretary so notify them

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GEIS Continuing

(D) Office Administration and Policies—Your Reference Committee notes the new businesslike distribution of costs and definitely approves of this It helps to determine the cost of each department The tightening of checks on vouchers is an excellent idea We approve the various methods of saving money through saving work adopted at the central offices We still feel that this is businesslike even if your reference committee chairman was one of those caught in the new regulations about mimeograph work.

This committee should be commended, and we recommend that it be continued

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GEIS Continuing

(E) Questions on Ethics—At the last convention the question of advertisements and announcements of publications for the laity was referred back to the committee for better wording Your Council Committee reports the following

> "In the event that there is proposed any advertising in relation to any book or article or writing for the laity, such proposed advertising matter shall be submitted to the Committee on Public Relations prior to any public appearance of the advertisement This reviewing committee shall render its opinion without unnecessary delay It shall be guided mainly by this section of these Principles of Professional Conduct, but shall be empowered to make such concessions as may be practiced and necessary in considering the title and contents of the publication, the professional standing and reputation of the author, and such other material through which the publisher may wish to arouse interest"

We recommend that this be part of a general reconsideration which is suggested in our report on resolution of Dr Burk of New York County

Your Council Committee also considered the question of the use of such titles as F A C S , F.A.C P , Diplomate Am Bd. of Int Med., etc , on letter heads, professional cards and prescription blanks

they are There are young men who are every year receiving certification in boards or are joining the various colleges who are very keen on having it in the *Directory*, because other people look for it Only recently I was confronted with this situation—and I am free to say that it is not a usual thing—a patient whose doctor was away had to be operated on She was already in the hospital. He was not at hand to be consulted The husband was advised by a friend of his to look and see what initials the proposed surgeon who was to substitute had, and unless he was a diplomate of the Board, a F A C S, he was not to take him That is, of course, an extreme case, but, gentlemen, it is important not to let it go more than two years I would much rather pay for it every two years than to have to wait three years and get it for nothing, and the young men I know feel the same way about it

We are a little bit too sensitive about trying to save ourselves $5 00 here and $5 00 there We are carrying on a profession, and we need our implements, and our *Directory* is a part of them We should not be deprived of it for longer than two years, and if we have to pay for it we will pay for it

SPEAKER ANDRESEN I want to call your attention to what we are discussing Right now we are discussing the amendment to the resolution, which is that we shall have the *Directory* published every two years, and that we are to vote that everybody in the Society who wants a *Directory* shall pay for it

DR. JAMES R REULING, *Treasurer* Mr Speaker and gentlemen of the House, there is not available here and now enough information to give this House of Delegates an answer to all of the questions that might arise on this Dr Rooney, one of your Trustees, who knows a great deal about the running of the affairs of the Society, said there were 7,000 changes since the last *Directory* The changes come closer to 40,000 since the last *Directory*

A motion to publish every second year and sell to such members as want it is impractical. We have nothing to go by at this time as to how many members would want to buy it This needs careful study There are arguments certainly in favor of having this published as frequently as possible without terrific financial loss to the Society, but it does need close study by a small group, and I would move, Mr Speaker, that the matter be referred to the Council for study and action and report

The motion was seconded by several.

SPEAKER ANDRESEN Does anybody wish to discuss the motion to refer?

DR. SAMUEL Z FREEDMAN, *New York* Mr Speaker and members of the House, to us in the City of New York this is of such vital importance that time is of the essence You must realize that if you postpone this, as has been advocated by the previous motion, you are already yielding to a postponement of the publication of the *Directory* probably for a period of two or three years

I had the privilege of sitting in at a reference committee hearing of a different reference committee where a similar subject came up, and I was very much impressed by the facts and figures which we did obtain. If you will for a moment use your arithmetic abilities, you will realize that all that is involved in the way of a deficit in the publication of the *Directory* once every two years is a matter of $2 00 per member per year The deficit is approximately $84,000 If this is divided by two, it is $42,000 per year We have 22,000 members in the Society Divide that into the deficit, and you have $2 00 per year per member

I do not think the maker of the motion providing for the payment of the *Directory* by the members had in mind that the membership shall pay the entire cost of the *Directory*, which is now $15 per copy I can readily see, however, that if $2 00 were added to the dues of the membership there would be no deficit whatsoever, and the publication could come out every two years That would satisfy those of us in the City of New York, not only those who use it but those of us who are directly affected by it, where it hurts the most, in our pocketbooks As Dr Koplowitz has mentioned to you, to us it is essential that this publication come out no less than every two years, and I think from that point of view the City of New York, which does have a vast majority of the members although we don't have adequate representation in the House, should be considered We feel that this is of such vital importance to us that consideration should be given to us

May I ask a parliamentary ruling whether I could make an amendment at this time to add to the dues of the membership by $2 00 per year, and the *Directory* come out every two years

SPEAKER ANDRESEN The motion is a motion to refer That has nothing to do with the amount paid per year

DR. FREEDMAN Then I will have to limit my remarks and ask your indulgence and plead with you not to postpone action on this motion to publish the *Directory* every two years

DR. HOMER J KNICKERBOCKER, *Ontario* Point of information, do I understand that the motion to refer gives the Council the privilege of publishing the *Directory* whenever they see fit?

DR. JOSEPH A. GEIS, *Essex* No, report back at the next House

DR. KNICKERBOCKER Did you say they were to report back?

DR. REULING My motion was to refer to the Council with power to act and refer back to this House the printing of a *Directory* next year If the Council so directs, and after a study they find it feasible to do so, they can print it next year, or they print it two years from now

SPEAKER ANDRESEN That was my understanding, that there would be no delay in the printing of another *Directory*

DR. REULING No, there would be no delay

DR. FRANK LAGATTUTA, *Bronx* Mr Speaker and delegates, I think all this discussion is really not fair to the report of the Publication Committee, Part XI Why not hear what their report is before we make all these motions?

DR. BEEKMAN I am speaking to Dr Reuling's amendment, is that right?

SPEAKER ANDRESEN That is to refer back, yes

DR. BEEKMAN I do not think that the delegates of the House realize the changing costs with which we are confronted at the present time Every time we purchase paper the price has changed. It is not possible, because of this change in cost, for the House of Delegates to make a motion that will hold water and that we will be able to carry out perhaps six months from now If we accept Dr Reuling's motion we will refer it to a smaller body, and conditions may then be entirely different I think we will make a very great mistake if we make a motion that the Council will have to carry out because the Council is really the House between sessions and should be able to make such changes from time to time as conditions dictate

DR. GEIS I would like to make a motion to defer action on this until the report of the Publication Committee is considered on the same subject, when it can be considered at the same time as that report.

DR. FREEDMAN I will second that

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN That matter of the *Directory* then will be taken up later when the Publication Committee reports

We will hear one more report before we declare a ten-minute recess

Section 125 (*See 7, 174, 177*)

Report of Reference Committee on Report of the Secretary

DR. FREDERICK W WILLIAMS Concerning the Report of the Secretary, your Committee wishes to report that the statistics on membership as published were the statistics as of January 1, 1949 The published number of 834 delinquent members for 1948 would give the impression that this delinquency produced a loss in membership from 21,303 for January 1, 1948, to 21,171 as of January 1, 1949 This is explained, however, as being due to a variation in fiscal policy between some of county societies and the State Society By March, 1949, the delinquency number was reduced to 284 which would bring the total membership to 21,721 and by May 1, 1949, our total membership was 22,520 This is definitely the largest membership in the history of our Society This is truly sound, progressive growth. Your Committee suggests, however, that the Secretary hereafter report the membership statistics more correctly—that is a typographical error, it should be currently—currently than of the calendar year—there has been some mistake in the typing here I will ask a recess to get it straightened out It has been mistyped

SPEAKER ANDRESEN Dr Williams wishes to be excused until he gets his report corrected

We will have a ten-minute recess

At this point there was a ten-minute recess

SPEAKER ANDRESEN The House will be in order

Section 126 (*See 13*)

Report of Reference Committee on Report of Council, Part XII Miscellaneous

DR. JOSEPH A. GEIS, *Essex* First of all, I want to thank Dr Gullo, Dr Babbage, Dr Wolff, and Dr Loughran who worked so long and so hard with me yesterday afternoon in going over these matters

This is the report of the Reference Committee on Report of the Council, Part XII, Miscellaneous

(A) Convention—Your Reference Committee notes the report of the Council Committee on Convention, and feels that the last convention was one of the best ever held It showed excellent foresight and planning This House owes its thanks to the subcommittee doing the work. Dr Mitchell will be missed at this and future conventions

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GEIS Continuing

(B) Nursing Education—Your Reference Committee approves the action of your Council Committee on Nursing Education in supporting the effort to have the 1941 Nursing Law put into effect this year

We also note the question of change in the education and duties of nurses, both R N and practical. This matter requires serious consideration by each and every physician in the State.

The Committee feels that the time is here for the State Society to take a stand and investigate the nursing situation It is felt that there are many extraneous factors included in nursing education that are unnecessary, expensive, and of no value in the making of a good nurse The time has come to reiterate the stand that the R N go back to nursing and be less of an administrator

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GEIS Continuing

(C) Woman's Auxiliary—The work of the Auxiliary has been increasing annually since it was organized During the past year Mrs Neptune has averaged one meeting a week We thoroughly approve the idea of the district meetings, and if we show one half the enthusiasm of the women the attendance at our district meetings will be doubled The average member of the State Society does not realize the work that the women are doing We recommend that a vote of thanks be extended to the Auxiliary and that the Secretary so notify them

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR GEIS Continuing

(D) Office Administration and Policies—Your Reference Committee notes the new businesslike distribution of costs and definitely approves of this It helps to determine the cost of each department The tightening of checks on vouchers is an excellent idea We approve the various methods of saving money through saving work adopted at the central offices We still feel that this is businesslike even if your reference committee chairman was one of those caught in the new regulations about mimeograph work

This committee should be commended, and we recommend that it be continued

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GEIS Continuing

(E) Questions on Ethics—At the last convention the question of advertisements and announcements of publications for the laity was referred back to the committee for better wording Your Council Committee reports the following

> "In the event that there is proposed any advertising in relation to any book or article or writing for the laity, such proposed advertising matter shall be submitted to the Committee on Public Relations prior to any public appearance of the advertisement This reviewing committee shall render its opinion without unnecessary delay It shall be guided mainly by this section of these Principles of Professional Conduct, but shall be empowered to make such concessions as may be practiced and necessary in considering the title and contents of the publication, the professional standing and reputation of the author, and such other material through which the publisher may wish to arouse interest"

We recommend that this be part of a general reconsideration which is suggested in our report on resolution of Dr Burk of New York County

Your Council Committee also considered the question of the use of such titles as F A C S, F A C P, Diplomate Am Bd. of Int Med., etc, on letter heads, professional cards and prescription blanks

The Committee decided that there was no objection to this provided the printing of these was in good taste The Committee left the interpretation of the phrase "in good taste" to the board of censors of each component county society This is also included in the referral to the Council committee

I move the adoption of this part of the report

The motion was seconded

DR. NATHAN BRODIE, *Kings* Do I understand, Mr Speaker, that this is just a report of the Economics Committee and not the resolution that was introduced yesterday?

DR. GEIS That is true

SPEAKER ANDRESEN The resolution is coming later?

DR. GEIS Yes

The question was called, and the motion was put to a vote, and was unanimously carried.

DR. GEIS Continuing

(F) Medical Licensure—Your Reference Committee notes the report of the Council Committee without understanding it However, we recommend that no graduates of any European continental school who matriculated after January 1, 1940, be admitted to examinations or be licensed without examination in this State

We also recommend that any physician of continental Europe who matriculated before January 1, 1940, should be required to have at least one year postgraduate work in an approved hospital before being considered eligible

We also recommend that a copy of this report be sent to Dr Dominick Maurillo to place before the Board of Regents

I might say in connection with this that the difficulty with the report from the Council Committee was due to the long sickness of Dr Strohm, who was the chairman of that committee It was finally drawn up in order to have it here for this meeting by Dr Peterson, who was working against time, and had a difficult job doing it alone It was one of the unfortunate things that happened because of Dr Strohm's illness

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GEIS Continuing

(G) Belated Bills—We recommend that the bill of Dr Peter J Di Natale for $167 95 be approved for payment

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GEIS We also recommend the payment of the bills of Dr Maxwell Lockie, $11 75, Dr C O E Lindbeck, $71 80, and Dr Ivan Hekiman, $25 35

SPEAKER ANDRESEN Will you explain just why that is necessary?

DR. GEIS Under the ByLaws of the Society all bills should be filed within thirty days from the time they were incurred If they are not filed within thirty days, the Council cannot approve them If they are filed after thirty days but before ninety days, the Council can refer them to the Trustees for approval, and if the Trustees see fit to approve them they may be paid.

All bills over ninety days old have to be brought before this House for approval

I move the adoption of this part of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 127 (See 36)

Report of Reference Committee on Report of Council, Part XII Amend Section 31 of Principles of Professional Conduct

DR. JOSEPH A GEIS, *Essex* Report on the resolution submitted by Dr Samuel B Burk, of New York County, which was distributed to each member of the House yesterday morning

(*Resolution given in full—Section 36*)

As a result of prolonged study of this resolution and a complete and thorough discussion, both pro and con, we recognize the need for a complete revision of the code of ethics with particular reference to the subject of advertising

We recommend that the Council Committee on Ethics study this matter and propose such changes as are needed at the next meeting of the House.

We also recommend that in the interim these problems be settled by each individual board of censors of the county societies

I move the adoption of this part of the report.

The motion was seconded

SPEAKER ANDRESEN Is there any discussion?

DR. NATHAN BRODIE, *Kings* Mr Speaker and members of the House, I have an amendment to this resolution, which refers particularly to Paragraph 31(a)

I wish to voice my disapproval of the resolution to amend Section 31 of the Principles of Professional Conduct It contains six sections

Paragraph (a) is objected to on the basis that it is incomplete and is consequently misleading It should be amended

The paragraph that I specifically object to, namely, 31(a), states

> "Physicians, as individuals or as members of any group, institution or organization, howsoever named, shall not resort to lay solicitation of patients in any form or manner whatsoever, directly or indirectly, or knowingly aid or permit others to make use of them in any form or manner of advertising or publicity through lay channels which should be tantamount to the solicitation of patients on their behalf, or employ any means or methods whatsoever to gain the attention of the lay public for the purpose of obtaining patients"

In the April 1, 1949 issue of the NEW YORK STATE JOURNAL OF MEDICINE under the annual reports of the Planning Committee, the following statement appears

> "The association or identification of a member of this society with a nonprofit voluntary medical insurance plan incorporated under Article IX-C of the Insurance Law of the State of New York or with a medical group associated or affiliated with such a medical insurance plan is not of itself improper or unethical and advertising or solicitation by any such medical insurance plan for subscribers to the plan is not of itself advertising to the public for business of a medical or therapeutic nature"

The Planning Committee for Medical Policies has investigated this matter with unusual thoroughness, and it is the result of the work of the committee composed of Drs Kenney, Anderton, Simpson, Masterson, Andresen, Cunniffe, Moore, Mott, Mitchell, Di Natale, and Aaron during the years 1946, 1947, and 1948

The approval of this resolution might be considered a form of restraint of trade, particularly since insurance programs in this State cannot exist

without the approval of the State Department of Insurance and the Department of Social Welfare

Two societies, namely, the San Diego Medical Society and the Oregon Medical Society, are now being sued by medical groups because of such restraining tactics

In these trying times where we are devoting every effort to develop various types of voluntary medical and hospital insurance, it is inadvisable to approve any resolution that would directly tend to restrain the development of any voluntary insurance plan, and conversely stimulate the development of the national compulsory health insurance program

I, therefore, recommend that this resolution be amended to include the recommendations of the Planning Committee published in the April 1, 1949, issue of the JOURNAL on page 816, as cited above

SPEAKER ANDRESEN Dr Brodie, the discussion is on the question of whether this whole matter shall be referred to the Council for revision of the Code of Ethics I don't know just where your amendment fits in How would you make that amendment?

DR. BRODIE 31(a)

SPEAKER ANDRESEN The question is whether we shall refer this entire matter to the Council

DR. BRODIE This amendment is in reference to including in there the report of the Medical Planning Committee in Section 31(a) I can read it directly from the Society bulletin if you would care to have me do so

SPEAKER ANDRESEN That would be a part of the job of the Council when it was reconsidering the whole Code of Ethics

DR. BRODIE However, they specifically omitted the recommendations of the Medical Planning Committee, and I believe they should be included because this now is in the form of a resolution

SPEAKER ANDRESEN The report of the Committee referred to, the Planning Committee for Medical Policies, has not been taken up yet, but that will also be considered by the Council

DR. BRODIE This is a resolution, and I am amending this resolution

SPEAKER ANDRESEN Amending it to have it include consideration of the Planning Committee's report in addition to the other?

DR. BRODIE That is right

SPEAKER ANDRESEN I guess there is no objection to that Is it seconded?

The motion was seconded by several

DR. SAMUEL B BURR, *New York* May I speak on that subject?

SPEAKER ANDRESEN Yes

DR. BURR Mr Speaker and members of the House of Delegates, inasmuch as I proposed these suggestions I sat through the committee's meeting, and I want to tell you that Dr Geis and his committee were very patient, and everybody who wanted to have an opportunity to discuss the pros and cons was given such time as he wanted. Even some members of the Planning Committee were present at the time Under the circumstances I think the whole matter is taken out of the hands of the House of Delegates and is transferred to our Council to report next time with such changes as to them, after study, may seem desirable, bearing in mind the report of the Planning Committee and bearing in mind all matters relating to publicity, but particularly with reference to this new modality for expressing our various cures or help that we may render the public, namely, television I believe that this whole amendment is entirely out of order

SPEAKER ANDRESEN We are now discussing an amendment which is simply to include the recommendation to the Council as well, that it consider the Planning Committee's report in revising the Code of Ethics It is not of any great importance, but it is not out of order

DR. THOMAS M D'ANGELO, *Queens* I should like to ask the question Does the present amendment just refer this matter to the Council or does it make it obligatory that it be accepted today?

SPEAKER ANDRESEN No, it just adds to the Reference Committee's recommendation the amendment that in considering this the Council also consider the Planning Committee's report

DR. BRODIE Right

DR. D ANGELO And does that include this whole question of ethics, not only Section 31 about which we have been arguing for the last three years but all other sections of the Code of Ethics be gone over by a committee of the Council and bring in a report of a whole new code of ethics?

SPEAKER ANDRESEN Yes

DR. GEIS Right

The question was called, and the amendment was put to a vote, and was unanimously carried, there being no discussion further, the motion as amended was put to a vote, and was unanimously carried

DR. GEIS Now I move the adoption of the report of the Reference Committee as a whole

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Geis

Section 128

Report of the Scientific Awards Committee

SPEAKER ANDRESEN Dr Charles D Post, of Onondaga, is here to make the report of the Scientific Awards Committee, which has to report direct to this House

DR. CHARLES D POST, *Onondaga* Our report is as follows

SCIENTIFIC AWARDS

First	Dr Nathan E Woodruff, Oak Ridge, Tennessee "Radio Isotopes"
Second	Dr Sidney A. Gladstone, New York Polyclinic Medical School, New York City "Sponge Biopsy A New Method in Cancer Diagnosis
Honorable Mention	Dr Louis E Etter, Western State Psychiatric Institute and Clinic, Pittsburgh, Pennsylvania "New Method for Roentgen and Anatomic Study of the Skull"

CLINICAL EXHIBITS

First	Dr David Lehr, New York Medical College, New York City "Low Toxicity of Sulfonamide Mixtures"
Second	Dr Charles A R Connor, American Heart Association, New York City

"Etiologic Diagnosis of Heart Disease"
Honorable Mention Dr Charles LeRoy Steinberg, Rochester, New York
"Gold Toxicology in Rheumatoid Arthritis"

CHARLES D POST, *Chairman*, Syracuse
CHARLES GIBBS, Rochester
JAMES MCASKILL, Watertown

I move its adoption

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Post

Section 129

Announcement

SPEAKER ANDRESEN I have an announcement to make Any members in the House of Delegates interested in volunteers for the armed forces—this in reply to the request for these volunteers received through the office of the Secretary of Defense—will meet with Dr Beverley C Smith in the rear of this room at the end of this meeting

Section 130 (*See 100*)

Report of Reference Committee on Miscellaneous Business (B) Medical Specialty Boards—Admission to Examination

DR. NORMAN S MOORE, *Tompkins* This is the Reference Committee's report on a resolution that was reintroduced this morning following this Committee's report, as an individual resolution of Dr Samuel Z Freedman, but I understand it had the endorsement of the New York County group It is the same resolution which was originally introduced without the words, "race, color, or creed." Do you wish it reread?

CHORUS Yes

DR. MOORE It reads

(*Resolution given in full—Section 100*)

The Reference Committee desires to amend the resolution in punctuation which places a comma following "basic training" in the first line of the third "whereas," and likewise places a comma following "basic training" in the third line of the resolution.

The Committee also desires to amend the first line of the fourth "whereas" to read "since a specialty board" rather than "since specialty board."

The Reference Committee recommends the approval of the amended resolution, and I so move

The motion was seconded.

DR. ABRAHAM KOPLOWITZ, *Kings* I don't think I quite understand the purpose of this whole thing When you mentioned about race, creed, or color, I could understand it. Perhaps there is an implication that they are differentiated against, but as it is now I would like to know the purpose of that Men are admitted to examination—

CHORUS Louder

SPEAKER ANDRESEN Dr Koplowitz wants to know the purpose of the resolution.

DR. KOPLOWITZ Men that meet the quality, ethically and by training, are admitted Now when the first resolution spoke of race, creed, and color that might imply that they were not With that taken out, what does it mean? I would like to know the purpose of it.

DR. WILLIAM B RAWLS, *New York* I would be glad to answer that This resolution was prompted by the fact that some men who have been licensed to practice medicine in the State of New York have not been allowed to take the specialty boards because they graduated from a foreign school, and in particular from the Scottish extramural school.

It was thought by the Medical Society of the County of New York that if these men had been licensed to practice medicine in New York, and, as a good many of these men had served in the armed services, if they had received the basic training required by the boards they should be admitted to the examinations by the boards and not discriminated against, just because they happened to have been graduated from a school that the boards do not wish to accept candidates from.

DR. KOPLOWITZ May I ask Dr Rawls whether he would include in that those graduates from the unapproved schools who have been licensed here?

CHORUS Louder

SPEAKER ANDRESEN He wants to know whether Dr Rawls would include the graduates of unapproved schools who have been licensed here

DR. RAWLS The unapproved schools cannot be licensed in the State of New York This only includes those people who have been licensed If you are not a graduate of an approved school, you cannot be licensed

DR. KOPLOWITZ Some have been licensed in the last few years

DR. RAWLS They must have the basic training, whatever school they come from.

DR. DONALD E MCKENNA, *Kings* As a member of the Board, I would like to state that under the circumstances certain schools in foreign countries are discriminated against, and rightly so They are discriminated against so as to give our own individuals an opportunity which they have as a birthright Any innuendo that a proper school in a foreign country is discriminated against is against all of the thoughts of the boards, and I speak feelingly on the subject. We are, I think, very fair As I see it, I am in accord with Dr Koplowitz unless the clause saying "race, color, or creed," is included, or discrimination because of religion or nationality, this motion has no effect and will have no effect upon the boards

DR. MAURICE J DATTELBAUM, *Kings* You are right

DR. JACOB WERNE, *Queens* I think we are treading on dangerous grounds We are intruding on the phrase of the Council of the American Medical Association, and before doing that we should have adequate grounds. The body of the resolution states that if these men have certain qualifications then they should be admitted. The boards have a perfect right, in conjunction with the Council of the American Medical Association, to set the qualifications, and apparently among their qualifications is one that these men shall graduate from schools either that are approved or have sufficient standing in the eyes of the members of the boards I think we should drop the term "discriminated against" unless there is some specific evidence to that effect that there has been actual discrimination. I hope that this resolution will be disapproved.

DR. SAMUEL Z FREEDMAN, *New York* I would like to discuss that.

SPEAKER ANDRESEN Go ahead

DR. FREEDMAN Apparently the idea of this resolution has been taken far afield Somebody has even said that there shall be two classes of citizens He speaks of those who, even though they may be

licensed in the State of New York, can and in his opinion should be discriminated against in order to give others the benefits of their birthright—whatever that may mean

The purpose of this resolution is quite simple There was purposely removed from this any word about discrimination on the basis of religion, color, national origin, etc, because in none of the "whereases" is there anything mentioned that discrimination takes place because of those reasons As Dr Rawls told you, it was brought up by a group of individuals in our county society who had a specific problem which was plaguing them In view of the fact that they had graduated from the so-called extramural schools of Scotland, they in some instances were not allowed to even take the examination by the board.

This was changed by us to read that anybody licensed to practice medicine in the State of New York shall be allowed to appear or make application for permission to take the examination Nobody is trying to tell the specialty boards what their requirements shall be as to training in their specialty The basic training referred to in that resolution has not anything to do with the basic training that we will discuss about individuals taking their examinations to practice medicine in this State This has to do with the basic training requirements set up by the different specialty boards, and the specialty boards are not deprived by this of any of their rights to set up their own criteria, but we do think it is unfair to cast aspersion upon the State of New York through its licensing representatives when they have, in their wisdom, seen fit to license an individual to practice in this State, that in spite of that the specialty boards say he still cannot practice medicine in their opinion

We do not have two types of practitioners in this State Anybody who is licensed to practice medicine in this State has every right that accrues to any other individual

As far as the argument of the Council of the American Medical Association doing certain things, let us not forget that we are representatives from our county societies, and we elect the delegates to the American Medical Association Don't let us fall into the error of thinking, as the public thinks, that the American Medical Association is some kind of a body which sits off by itself and is responsible to nobody The American Medical Association, whether it is the delegates, the Council, the trustees, or anybody else, is responsible to all of the members of the American Medical Association, and in the methods provided for by our Constitution this is the routine or the pathway along which these things that originate from individuals in the local county societies hope to get up there to the American Medical Association All we ask in that resolution is that anybody licensed to practice in this State of New York shall have the same right to take examinations as anybody else

DR. MOORE I beg your pardon May I read the resolution? It does not say that

DR. IRVING J SANDS, *Kings* What does it say?

DR. MOORE It says

"*Resolved*, that the Medical Society of the County of New York recommend that all physicians who are duly licensed to practice medicine in the State of New York, and who meet the basic training, postgraduate and ethical requirements of a specialty board be admitted to the examination given by the specialty board"

DR. FREEDMAN What is wrong with that?

SPEAKER ANDRESEN It does not mention anything about the Scotch school at all

DR. FREEDMAN While it does not mention the Scotch school, it does say that anybody who is a licensed practitioner and anybody who meets the basic requirements of the specialty board shall be admitted to the examination What is wrong with that?

DR. MOORE Nothing, the Reference Committee recommends its adoption with proper punctuation

DR FREEDMAN I thought you were differing with me

DR. KOPLOWITZ I would like to be heard

SPEAKER ANDRESEN You have discussed it once already

DR. KOPLOWITZ I asked a question

SPEAKER ANDRESEN All right

DR KOPLOWITZ I am also in sympathy with a lot of young men that have graduated from schools abroad that were somehow put on a lower basis by the American Medical Association Quite a time ago we were informed by the American Medical Association that graduates from foreign schools cannot occupy internships unless they have a state license Now it seems to me that this resolution has nothing to do with the boards As a principle I think the boards accept the rulings of the Council on Intern Training and whatever else you call it of the American Medical Association It is up to the American Medical Association to announce a rule that anyone that holds a license in the forty-eight states is legally a doctor of medicine allowed to go further if he can, but it is not up to the boards

The question was called, and the motion was put to a vote, and as there was doubt of the result, the motion was again put to a vote, and was declared carried

SPEAKER ANDRESEN The "ayes" have it, and the recommendation is adopted

Section 131 (*See 43, 88*)

Report of Reference Committee on Miscellaneous Business (B) Remission of Dues for Physicians Leaving to Take Residencies

DR. NORMAN B MOORE, *Tompkins* This resolution was introduced by Dr G S Baker, of Wyoming County

(*Resolution given in full—Section 43*)

As you recall, this resolution was returned to the Reference Committee by the House of Delegates, and I wish to report at this time that if and when I should become a patient I hope I will have the wisdom of the doctors that are on my Committee, because when they found out that the laboratory guide which they used yesterday was a wrong steer they revised their diagnosis in terms of more history and more laboratory aids today, therefore, the Committee reverses its stand with these comments

In consideration of this resolution yesterday, the Committee was unanimous in its desire to assist a worthy member of the State Society to receive postgraduate education Officers of the Society and other members of the House of Delegates who appeared before the Committee supported this feeling and did not inform the Committee of possible penalties to future administration of the State Society

Today on reconsideration the Reference Committee continues its feeling of sympathetic support for worthy fellow members desirous of postgraduate education However, additional opinions have given the Committee more insight regarding possible complications to which this resolution could lead in the future Further information was obtained re-

garding provisions already existing in the By laws for members in good standing who are in distress The Reference Committee feels the county society should assume the responsibility for special assistance to its members Therefore, with these additional facts available the Reference Committee has re-evaluated the resolution and recommends its disapproval

I move the adoption of the Reference Committee's recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The recommendation, carrying with it the disapproval of the original resolution, is adopted

DR. MOORE Now I wish to move the adoption of the Reference Committee's report as a whole

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Moore I understand you have a resolution to offer

Section 132 (*See 186*)

End Results of Industrial and Traumatic Surgery

DR NORMAN S MOORE, *Tompkins* I wish to offer this resolution as an individual

"WHEREAS, there are many thousands of medical records on file with the New York State Workmen's Compensation Board, such as those involving herniae, Colle's fractures, fractured femurs, and fractured scaphoids, and

"WHEREAS, the methods of examination used by the medical staff of the Board give the final results in terms of disability at end periods of time, varying from one to three years, and

"WHEREAS, these results have not yet been made available to the medical profession, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York requests the Chairman of the New York State Workmen's Compensation Board to attempt to obtain the necessary funds needed for study and tabulation of such medical records, so that these end results may be published and made available to the medical profession"

I move it be referred to the Council

DR. J STANLEY KENNEY, *New York* I second the motion.

SPEAKER ANDRESEN Is there any discussion? This is a motion to refer this resolution to the Council and not to a reference committee

DR. ARTHUR A FISCHL, *Queens* I just want to know whether these specific items are the only items as mentioned in that resolution or are there others?

DR. MOORE They were used as examples only

The question was called, and the motion was put to a vote, and was carried.

SPEAKER ANDRESEN The matter is referred to the Council

Section 133 (*See 124*)

Report of Reference Committee on Report of Council, Part XI Publication

DR. EUGENE H COON, *Nassau* The Reference Committee on Report of Council, Part XI, on Publication and Publicity has the honor to submit the following report

Your Committee has considered the report of the Council on Publications and observes that the Medical Society may be proud of the steady progress of the JOURNAL. The fact that its editorials h aroused comment by members and been referred in other journals and that its scientific articles h been widely abstracted and quoted in numer publications proves its increasing influence in country We, also, approve of the new plan of cluding practical articles on vital subjects such nutrition, physical medicine, and public hea Furthermore, we believe that the President's P is a helpful link between the head of the Society : its membership The inclusion of a special gr of men as contributors and advisers on the edito staff and the reference of scientific papers to a lis specialty consultants is in line with the forw look

We feel that the editorial staff as well as technical editorial staff, the advertising represer tives, and the others who have assisted are to highly commended for an excellent year's work.

It is noteworthy that this wider usefulness been attained without incurring any indebtedn We agree with the Council that an occasional de in publication of a paper is to be preferred to a (icit.

The Publication Committee is evidently alert the needs of the future and is already holding cussions regarding improvements in the general pearance of the JOURNAL. Progress makes s changes inevitable, but progress, also, dema careful thought, and we are pleased to note t such problems are being wisely approached.

Your Committee recommends to the Council t the *Directory* be published every two years, it ther recommends that the Publication Commit investigate thoroughly the cost of publishing Connecticut and New Jersey sections and the p sible loss due to advertising, and be gover thereby

Lastly, since by resolution of the House of D gates the Publication Committee is appoin annually, we recommend to the House of Delegs the continuance of this body as previously est lished

I move the adoption of this part of the report

DR. IRVING J SANDS, *Kings* I second, Speaker, that motion

SPEAKER ANDRESEN At this time we h agreed to consider the previous discussion on t subject again, and I think perhaps we should h that included at the present time as a part of discussion of the recommendation of Dr Coo committee You cannot consider two things once, so I think perhaps the best way would be have the other consideration taken up as a part the discussion of Dr Coon's committee's reco mendations

DR. STEPHEN R. MONTEITH, *Rockland* W can't we act on this report except that part wh concerns the *Directory*, and dispose of that p separately later in connection with the previ discussion?

SPEAKER ANDRESEN Would you like to do th

DR. COON It would be all right.

SPEAKER ANDRESEN Will you second that n tion of Dr Monteith's?

DR. COON Yes, that would be a good way handle it.

There being no discussion, the motion w put to a vote, and was unanimously carried

SPEAKER ANDRESEN This portion of the report approved except for the recommendation in rega to the publication of the *Directory*

We will now ask Dr Monteith, whose referen committee reported previously on this same qu

tion, to discuss the matter of the publication of the *Directory*

DR. MONTEITH Your Reference Committee on the Report of the Board of Trustees felt that we had investigated this question as far as we could in view of the fact that we did have conferences with members of the Board of Trustees, the Publication Committee, our JOURNAL editors, and our business manager

There is only one thing that I think I would say here, and that is, Dr Coon in his report has mentioned the fact that there should be an investigation by the Publication Committee of including the members from New Jersey and Connecticut in the *Directory* That has been done, and it is the considered opinion of the Publication Committee and business manager that the dropping of the listing of members from those states will not in any serious way affect the amount of advertising received for the *Directory*

We were also assured that the Publication Committee was seriously considering publishing the *Directory* without any advertising at all because the net profit from such advertising is very low, and the advertising itself is difficult to secure

In setting forth in our Reference Committee report the compromise issuance of the *Directory* on a three-year basis, we were simply compromising the recommendation of the Board of Trustees, who recommended a four-year issuance, with the issuance of a supplement The supplement we believe to be completely valueless

We felt that a four-year interval between publication was probably too long, but that with the two-year publication there was too much risk of running a big deficit

SPEAKER ANDRESEN Dr Kosmak, will you discuss this report? Let us hear right from headquarters

DR. GEORGE W KOSMAK, *Managing Editor* Mr Speaker and members of the House, I don't know quite how to begin, but I do want to say that in so far as the recommendation of the Publication Committee is concerned, as stated in its report we considered a three-year interval of publication appropriate. That was based on considerations that were brought up at a considerable number of our meetings.

The Publication Committee feels that the issuance of the *Directory* is not only one of its most difficult jobs but one which concerns the Society as a whole, and particularly its financial department, in a way that we did not feel that we should be the sole arbiters The Publication Committee is the servant of the Society, and we look upon it as such We do not wish to be put in the position where we should be the deciding factor, and whatever decision is reached at this particular gathering or any other gathering is the one that we shall feel ourselves compelled to follow

There are a great many difficulties associated with the publication of this *Directory* We include in it those 23,000 members of the State Society and some 8,000 names of those in the adjoining states The inclusion of the latter may be of advantage to a comparatively small number of people The metropolitan area, which embraces the nearby portions of the State of New Jersey and the State of Connecticut, may with good reason perhaps be included, but when we proposed this to the representatives of these two state societies they, after consultation with their officers, felt that they could not contribute anything to the costs

In so far as the proposition has been made that the *Directory* be sold to this particular group, we find that only 300 copies could be disposed of in those areas, but that the *Directory* includes 8,000 names from these two sections

In so far as publishing supplements is concerned, we feel that that would be a very undesirable feature When a man picks up the book, he looks up Dr Jones, and he assumes that the description of Dr Jones—his address, telephone number, and hospital associations—is correct There is not one man in a hundred who would go back to his supplement to find out whether that insertion is correct

Moreover, it would be a fairly costly venture, and the Publication Committee did not believe it would be a desirable thing to do

The proposition has also been made that the *Directory* be issued and sold to those who want it That would create an impossible situation When we compile that *Directory*, we have to make arrangements with a publishing concern and with the printer, and we have to give them a definite number of copies that are desirable If we were to rely on selling that simply to the men who wanted it we could obtain no satisfactory or definite estimate, because books are not published that way They are published in editions, and we must give an order for 25,000 or 27,000 copies, and then if we found that only 15, or 25, or possibly 30 per cent of the members wanted a copy, what would we do with the remainder?

Moreover, the difficulties of collecting these sums from the subscribers would be a task of considerable proportions So the Publication Committee does not feel that that is a desirable feature to follow up

Now, Mr Speaker, I have nothing more to say on that subject unless somebody wants to ask a question or questions However, I do want to take this opportunity to introduce a personal note It would be most ungracious of me if, as an individual, I did not give cognizance and recognize the very nice things that were said about me yesterday in those various resolutions I accept these compliments, but I do so in the belief that they should likewise be transferred to those men and women in the Society who have been so helpful to the editor in these recent years

I want to express my particular obligation to Dr Laurance Redway for the wonderful editorial work he has done I want to express my indebtedness to Mr Dwight Anderson, who has managed the business end of the JOURNAL and *Directory* I want to express my obligations to the office staff, and I want to express likewise my obligations to our secretary, Dr Anderton If I have omitted anybody, I am sorry, but this has not been, I want to assure you, the work of one individual What has been done is due to the devoted assistance that has been given by various people in the headquarters' office

I am glad, Mr Speaker and members of the House, to have had this opportunity to say these few words I assure you that I was greatly embarrassed yesterday to sit there and have to listen to all this, but the one thing that I did resent was the remark by the Speaker that this was a eulogy (*Laughter*) As an editor, naturally I have to take note of the definition of words in the dictionary I was always under the impression that eulogies were pronounced more or less over the dead, and while I may be dead from the left ankle down—in the last few days I have been suffering from an attack of gout—I want to assure you that does not extend above the ankle

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garding provisions already existing in the Bylaws for members in good standing who are in distress The Reference Committee feels the county society should assume the responsibility for special assistance to its members Therefore, with these additional facts available the Reference Committee has re-evaluated the resolution and recommends its disapproval

I move the adoption of the Reference Committee's recommendation

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN The recommendation, carrying with it the disapproval of the original resolution, is adopted

DR. MOORE Now I wish to move the adoption of the Reference Committee's report as a whole

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SPEAKER ANDRESEN Thank you, Dr Moore

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We feel that the editorial staff as well as the technical editorial staff, the advertising representatives, and the others who have assisted are to be highly commended for an excellent year's work.

It is noteworthy that this wider usefulness has been attained without incurring any indebtedness We agree with the Council that an occasional delay in publication of a paper is to be preferred to a deficit

The Publication Committee is evidently alert to the needs of the future and is already holding discussions regarding improvements in the general appearance of the JOURNAL. Progress makes such changes inevitable, but progress, also, demands careful thought, and we are pleased to note that such problems are being wisely approached

Your Committee recommends to the Council that the *Directory* be published every two years, it further recommends that the Publication Committee investigate thoroughly the cost of publishing the Connecticut and New Jersey sections and the possible loss due to advertising, and be governed thereby

Lastly, since by resolution of the House of Delegates the Publication Committee is appointed annually, we recommend to the House of Delegates the continuance of this body as previously established.

I move the adoption of this part of the report

DR. IRVING J SANDS, *Kings* I second, Mr Speaker, that motion.

SPEAKER ANDRESEN At this time we have agreed to consider the previous discussion on this subject again, and I think perhaps we should have that included at the present time as a part of the discussion of the recommendation of Dr Coon's committee You cannot consider two things at once, so I think perhaps the best way would be to have the other consideration taken up as a part of the discussion of Dr Coon's committee's recommendations

DR. STEPHEN R. MONTEITH, *Rockland* Why can't we act on this report except that part which concerns the *Directory*, and dispose of that part separately later in connection with the previous discussion?

SPEAKER ANDRESEN Would you like to do that?

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I thank you, Mr Speaker, for having given me this opportunity to be heard

SPEAKER ANDRESEN I beg the pardon of our editor for making a mistake in English. He corrects things that I write every once in a while, and now he has corrected something I have announced We thank him very much for his very modest talk about his own efforts We all know we would not have the JOURNAL we have were it not for his efforts, although all the other people who are helping him are doing such a fine job as well

Our Committee has recommended that this whole matter of how often the *Directory* is to be published and at what expense is to be referred to the Council The previous Committee had recommended three-year publication. Do you want to put that in the form of an amendment so we can do something about it?

DR. MONTEITH Had not Dr Reuling amended our report, to refer it to the Council? I think he had

DR. JAMES R. REULING Mr Speaker and gentlemen of the House, I believe the question before us at this time is the report of the present Reference Committee We have laid a matter on the table until this Reference Committee has reported That should be taken care of There cannot be two main motions on the floor at the same time, and I shall move, Mr Speaker, that this portion of this Reference Committee's report be referred to the Council for action

The motion was seconded by several

SPEAKER ANDRESEN Dr Reuling, the thing we are acting on is a motion to refer the matter to the Council, which is what you are making a motion of now That is what we are voting on now, whether to refer it to the Council.

DR. REULING This was a two-year publication.

SPEAKER ANDRESEN No, they wanted to refer the whole matter, as I just said, of how often or by what method to the Council.

DR. REULING I beg your pardon I don't think that motion then should prevail There should be a motion to take the other from the table and dispose of it likewise

DR. JAMES F ROONEY, *Trustee* I rise to a question of information I think the House is confused, as I am As I recall the discussion on the report of the preceding reference committee concerning the question of time of publication, it was moved that we postpone further discussion on the amendments that were made to that reference committee's report. They deferred action upon those until after hearing the report of the reference committee on the Publication Committee's report, so that they could be taken up jointly I am asking the Chair if that is the understanding of the Speaker and if that is the understanding of the House

SPEAKER ANDRESEN The Speaker has ruled that two resolutions or two reports cannot be acted on at the same time. In the first place we cleared the boards so far as the reference committee's report is concerned to boil it down to merely a consideration as to whether the whole matter of publication of the *Directory* was to be referred to the Council or not, and then I asked whether the people who had introduced the original resolution and the committee which had considered it would like to discuss this question of the one motion before the House, and that is the recommendation of this Reference Committee.

DR. ROONEY Of this Reference Committee on Publication?

SPEAKER ANDRESEN Yes, that is the motion before the House

DR. ROONEY I think that is the important thing to have the House understand.

SPEAKER ANDRESEN I stated that first.

DR. ROONEY May I ask that the chairman of the Reference Committee reread the recommendation?

SPEAKER ANDRESEN Will you read that again, Dr Coon?

DR. COON It reads

> "Your Committee recommends to the Council that the *Directory* be published every two years, it further recommends that the Publication Committee investigate thoroughly the cost of publishing the Connecticut and New Jersey sections and the possible loss due to advertising, and be governed thereby"

The reason for the latter being that yesterday we were informed that there was some question still in the minds of the Publication Committee whether they would be losing more money from advertising by dropping out New Jersey and Connecticut than they would be saving the cost of publication.

SPEAKER ANDRESEN You said you wanted to refer it to the Council. You didn't mention that now

DR. COON Yes, it starts, "Your Committee recommends to the Council"

CHORUS Two-year publication

SPEAKER ANDRESEN Your recommendation then is to the Council?

DR. COON Right

SPEAKER ANDRESEN It is not a mandate, it is a recommendation

DR. ROONEY Right

DR. REULING I rise to a point of order then that my original motion was in order This is only a recommendation.

DR. ROONEY I will take a point of order also The point of order, Mr Speaker, is this There are embodied actually two motions in this report asking for the approval of the House One is to refer to the Council, and the other is directing the Council to publish the *Directory* every two years I would suggest that as a matter of parliamentary order the recommendations be divided and passed upon separately

CHORUS Right.

DR. ARTHUR A. FISCHL, *Queens* I so move.

The motion was seconded by several.

SPEAKER ANDRESEN We will do that We will then have the first recommendation. What is that, Dr Coon?

DR. COON "Your Committee recommends to the Council that the *Directory* be published every two years."

DR. ROONEY Now, Mr Speaker, I would like to say three words to the House I hope this motion will fail of approval.

SPEAKER ANDRESEN Is there any further discussion?

DR. EZRA A. WOLFF, *Queens* As I understand it, Mr Speaker, the motion is to publish the *Directory* every two years

SPEAKER ANDRESEN To recommend to the Council that it be published every two years

DR. WOLFF I should like to suggest an amendment I think we are all in accord that we should publish the *Directory* as often as is feasible We are all afraid it is going to cost too much money I think if we had a little insurance on our costs we could possibly get around the situation. I suggest that the recommendation of the Committee be amended so as to read that the *Directory* shall be published every two years and distributed in the manner heretofore employed, with the understanding that any deficit resulting from the production of

the next issue shall be defrayed by a per capita assessment, which shall not exceed $5 00 for each member

SPEAKER ANDRESEN Is that amendment seconded?

The amendment was seconded by several

DR. LEO F SCHIFF, *Clinton* Mr Speaker and gentlemen, we are going to get ourselves so terribly balled up and do things that we may be sorry for later We are losing sight of the simplest solution, and that is to refer this matter and all the other matters that are coming up in connection with it to the Council. They have some idea of what this House of Delegates wants They have the time for consideration of the Publication Committee's ideas and all of the other things involved The only sensible action that we could take would be to refer the matter to the Council with power to act as in their judgment they see fit and to report to this House of Delegates next year, and I so move

The motion was seconded by several

SPEAKER ANDRESEN Is there any discussion of this motion to refer?

DR. ABRAHAM RABINER, *Kings* This *Directory* is one of the services that the Society offers to its members It is a necessary service, and should be available to them. My original amendment was an effort to make it possible that this service be continued to those who want it It would not be a great sacrifice for them to pay a small amount of money to obtain it The argument that was given to me in the period when we had a recess was that there are a great many members who would not avail themselves of it, who would not care to have it if they had to pay for it and—

SPEAKER ANDRESEN I am very sorry, but I will have to rule now we are considering the motion to refer, not the other amendment

DR. RABINER But this is in reference to that motion.

SPEAKER ANDRESEN Not so far

DR. RABINER I will come to it in a moment

SPEAKER ANDRESEN Will you get right down to it?

DR. RABINER The point is this I think it would be unfair to tax every member of the Society for any deficit. On the other hand, if it were announced that this volume is available to every member who wishes it, but that a small assessment or rather a small fee would bring them the volume, I think it would take care of the deficit.

SPEAKER ANDRESEN The question is whether the whole matter is to be referred to the Council, the matter of publication of the *Directory*

CHORUS Question

CHORUS No

SPEAKER ANDRESEN All in favor of limiting the further debate and bringing up the question at once say, "Aye"—

DR. FREEDMAN Mr Speaker, I wish to be heard.

SPEAKER ANDRESEN Contrary, "Nay" The motion to limit debate is carried.

DR. FREEDMAN Are you sure you are within your rights in doing that?

SPEAKER ANDRESEN The House has decided there is to be no more debate on it.

DR. FREEDMAN Are you parliamentarily correct?

SPEAKER ANDRESEN The question had been called

DR. FREEDMAN I am asking if you are parliamentarily correct to thus limit debate

SPEAKER ANDRESEN The House has decided to limit debate and take up the question. All those in favor of the question will say, "Aye", contrary, "No" This matter is now referred to the Council.

DR. FREEDMAN May I ask when the Council has the time to do all the work that has been passed on to them by this body in addition to doing the work that it has been elected to do?

DR. REULING Might I at this time repeat the motion that I made before or rather my intention to take from the table the matter of the motions that were laid on it?

SPEAKER ANDRESEN We still have another resolution from this Reference Committee to discuss

DR. REULING I was declared out of order, and now you have taken action on the motion I am now making the motion to take from the table at this time the recommendation, with its amendments, of a previous reference committee

SPEAKER ANDRESEN Then that would put two motions before the House, which is out of order because we have the other half of this recommendation to discuss It was divided into two parts

DR REULING May I hear that read?

DR. COON "It further recommends that the Publication Committee investigate thoroughly the cost of publishing the Connecticut and New Jersey sections and the possible loss due to advertising, and be governed thereby"

DR. KOSMAK May I just interrupt a moment? I would like to inform the chairman of the Reference Committee that all of that has been done The Publication Committee has made a thorough study of those features that he is referring to there

SPEAKER ANDRESEN Is there any further discussion?

There was no response

SPEAKER ANDRESEN Dr Reuling, do you wish to discuss that?

DR. REULING No

SPEAKER ANDRESEN Would you like to refer that together with the previous one?

DR. REULING Yes, Mr Speaker That is simply to ask them to study?

SPEAKER ANDRESEN Yes

DR. REULING And that could very well be a part of the motion to refer to the Council the matter of publication?

SPEAKER ANDRESEN Yes Do you want us to vote on it the way it is?

DR. REULING I will yield

DR. MONTEITH I should like to amend the Reference Committee's report and request that this portion of their report be likewise referred to the Council.

DR. ARTHUR J BEDELL, *Past President* I second that motion, or that amendment rather

SPEAKER ANDRESEN Is there any discussion on the motion to refer this part of the report also to the Council?

The question was called, and the motion was put to a vote, and was unanimously carried.

DR. REULING Mr Speaker, this motion to table was to be a part of this discussion. I move that that question and the amendments thereto be now taken from the table

The motion was seconded by several

SPEAKER ANDRESEN You will do that automatically, because it was voted it should be done that way That was my intention to bring that up now in the taking of any vote, because the motion was originally that it was to be taken up after this—

DR. REULING It was not It was to be considered at the same time.

SPEAKER ANDRESEN At the same time?

DR. REULING Yes

SPEAKER ANDRESEN Then we will take it up now All in favor will say "Aye", contrary, "No" The motion is carried and that is being taken up.

DR. REULING Now I move that those matters be referred to the Council for action

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 134

Report of Reference Committee on Report of Council, Part XI Public Relations

DR. EUGENE H COON, *Nassau* The importance of the National Education Campaign needs no argument, and a spokesman for the American Medical Association makes very clear what part we must play in this campaign He writes, "Your state association and your office as well as your member societies will be in the front lines of the grass roots campaign to convince the American people that voluntary medical care is better for them by far than any compulsory system."

Our Committee joins the Council Committee on Public Relations in emphasizing the following steps to be taken immediately by each county organization

1 Organize a speakers' bureau composed of members with forensic ability

This first step, an organization of a speakers' bureau, is a vital one Aid to form this committee may be secured from Mr Thomas E Walsh, field representative of the Public Relations Bureau of the Society It is encouraging to note that eight counties have formed such a speakers' bureau, but it is imperative that the other 53 societies act at once

2 Have a public relations committee which will gather available material concerning compulsory health insurance from the State Medical Society and elsewhere

3 This committee should, also, see that its speakers attend a "briefing session" similar to the one to be held on May 14 in Rochester Members who are in a district which is eligible to attend this session should see that their society is represented adequately Arguments against compulsory health insurance will be presented and an expert adviser on public speaking will assist Advice on how to hold a "briefing session" for individual county societies may be obtained from Mr Walsh

4. Ask the county organization to alert for opportunities to speak, get the Woman's Auxiliary to help in this Their membership reaches many groups The State organizations of dentists and retail druggists have offered aid in this fight Enlist the aid of the local dentists and druggists in the search for chances to present our side of this question.

The continued assistance to the Woman's Auxiliary is heartily approved. Aid given to their planning committee and the information made available to them has helped to strengthen their organization A well-informed Woman's Auxiliary means a better informed community Our committee urges the utmost cooperation between the Council Committee on Public Relations and the Woman's Auxiliary

Your Committee is impressed by the list of releases, news letters, and publications

We wish to commend the Council Committee on Public Relations for an excellent report in a crucial time

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 135 (*See 27*)

Report of Reference Committee on Report of Council, Part XI Medical Directory

DR. EUGENE H COON, *Nassau* We now have three resolutions The first one is the resolution introduced by Dr Moore, of Tompkins County

(*Resolution given in full—Section 27*)

Your Committee disapproves of this resolution Definite recommendations were made in Report of Council, Part XI, Publications and Public Relations

That has already been taken care of, and requires no additional action

SPEAKER ANDRESEN As long as that has already been disposed of, I will rule we need not take it up now

Section 136 (*See 30*)

Report of Reference Committee on Report of Council, Part XI Concerning Listing of Union Health Center in the State Medical Directory as an Industrial Clinic

DR. EUGENE H COON, *Nassau* Resolution introduced by Dr Peter Murray, of New York County

(*Resolution given in full—Section 30*)

Your Committee suggests the substitution of the following resolution

"*Resolved*, that only those hospitals, clinics, and other institutions which comply with the intent and the spirit of the code of ethics of the Medical Society of the State of New York as it applies to the practice of medicine, be listed in the *Directory*"

Your Committee approves the adoption of this resolution.

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 137 (*See 59*)

Report of Reference Committee on Report of Council, Part XI Suggested Educational Device

DR. EUGENE H COON, *Nassau* Resolution introduced by Dr McGarvey, of Westchester

(*Resolution given in full—Section 59*)

Your Committee recommends the adoption of this resolution

The motion was seconded by several

SPEAKER ANDRESEN Any discussion? That is merely a recommendation to the American Medical Association, is that right?

DR. COON Yes

The question was called, and the motion was put to a vote, and was unanimously carried.

DR. COON I would like to thank the members of the Committee for their assistance and cooperation, Drs Frank LaGattuta, Irving J Sands, and William A. Peart

Also I wish to move adoption of the report of the Committee as a whole, as amended

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN Thank you, Dr Coon

Section 138 (*See 173*)

Revised Workmen's Compensation Fee Schedule

SPEAKER ANDRESEN Yesterday morning your Speaker announced that we had two members of the House who had been serving continuously since

1913 We tried to get both of them to come up here and speak, and neither was here at that time, but Dr Rooney had plenty to say later, and we have already heard from him. Now we are going to hear from the other one Dr Bedell is going to prove that he is with us by getting up and giving us a few words of greeting and then giving us some information

DR. ARTHUR J BEDELL, *Past President* I arise neither for greeting nor for time-consuming discussion I arise in anger This morning we heard from Miss Donlon that the fee schedule had been revised. It has—downward. I rise, sir, and ask that Dr Duryee's committee, Part XI, on the Report of the Council, who made the recommendations that the fee schedules for the general practitioner, the radiologist, and the practitioner of physical medicine be revised and proper adjustments made, consider this matter The supplemental fee schedule has just been seen, and speaking for the ophthalmologists of the State of New York I object to the promulgated revision and request that Dr Duryee's committee bring in an additional report including the schedule for eye care I trust, Mr Speaker, these remarks and my presence will thank you for acknowledging me.

SPEAKER ANDRESEN Dr Bedell has made a motion to refer this to Dr Duryee's committee

DR. BRITTAIN F PAYNE, *New York* I second that motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN That is so referred

Section 139 (*See 8, 124, 133*)

Report of Reference Committee on Report and Supplementary Report of the Board of Trustees

DR. STEPHEN R MONTEITH, *Rockland* Might I have this opportunity to thank the members of my committee who listened long and patiently yesterday afternoon, Dr Charles W Mueller, Dr B Wallace Hamilton, Dr Thomas M Watkins, and Dr Harold F Brown

I also move the adoption of the report of the Reference Committee as a whole, as amended and referred.

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 140

Report of Reference Committee on Report of Council, Part I Postgraduate Education

DR. SCOTT LORD SMITH, *Dutchess* Mr Speaker and members of the House, the report of the Council, Part I, reviews the work of the Committee on Public Health and Education under the chairmanship of the late Dr O W H. Mitchell.

Your Reference Committee is greatly impressed by the vast amount of postgraduate education carried on, as shown by this report of what has been provided during the year The patient, persistent, and prodigious efforts of the chairman have been invaluable to the doctors and citizens of this State For many years, Dr O W H. Mitchell was a member of the Committee on Public Health and Education and, since 1940, had served as its chairman. Therefore, before reviewing in detail Dr Mitchell's work, your Reference Committee would request a silent standing tribute to Dr Mitchell.

SPEAKER ANDRESEN It is so ordered

The delegates arose and stood for one minute in silent tribute to Dr O W H Mitchell's memory

DR. SMITH Postgraduate medical education is furnished by this Council Committee in many ways

1 Speakers are provided for meetings of hospital staffs, county societies, and other medical groups This program is made available by the combined efforts of the New York State medical school faculties and research institutions, the New York State Department of Health, the New York State Dental Society, the New York State Department of Labor, and others For programs so arranged the Medical Society of the State of New York pays the speakers' traveling expenses, and the New York State Department of Health provides the honorarium

2 The *Course Outline Book* is published and distributed to a long list of medical organizations' officers, public health, education and welfare officials, research foundations, and others The 1948 edition, revised for 1948 and 1949, contains 67 announcements That it is up to date is attested to by two new items, (*a*) "Medical Aspects of Radioactive Materials," and (*b*) Medical Motion Picture Films, procurable on a loan basis The course book has been used in 33 counties whose county societies or hospital staffs have had at least one and usually four or more lectures

3 Regional meetings and teaching days were held during the year in five counties

Always alert, the Public Health and Education Committee has, as of February 1, 1949, already made extensive commitments along similar lines for the coming year

Also, Dr Mitchell addressed the Associated State Postgraduate Committee in Chicago on "The Postgraduate Medical Education Program of the Medical Society of the State of New York," and the fall meeting of the Brooklyn Tuberculosis Society on the State Medical Society's BCG Program.

In conclusion, your Reference Committee has only unbounded admiration for the work of Dr Mitchell and his committee, and is confident that his successor will carry on at the high level which Dr Mitchell attained during the nine years that he served as chairman of the Committee on Public Health and Education The Committee realizes the imperative need to continue this work.

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 141 (*See 54, 184*)

Report of Reference Committee on Report of Council, Part I Medical Officers for the Armed Forces of the United States

DR. SCOTT LORD SMITH, *Dutchess* Under Emergency Preparation, two resolutions were referred to the Reference Committee

One was the resolution introduced by Dr Irving J Sands, of Kings

(*Resolution given in full—Section 54*)

Your Committee considered this would exceed the authority of the House of Delegates and, therefore, recommends that it be not approved

I move the adoption of this section of the report

DR. STEPHEN R. MONTEITH, *Rockland* I second that motion

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 142 (*See 31*)

Report of Reference Committee on Report of Council, Part I Voluntary Service in the Medical Corps of the Armed Forces

DR. SCOTT LORD SMITH, *Dutchess* The second resolution, introduced by Dr Alfred P Ingegno, of Kings, is entitled "Voluntary Service in the Medical Corps of the Armed Forces"

"*Resolved*, that the component county medical societies of the Medical Society of the State of New York be, and hereby are, urged by this, their House of Delegates, to exert every effort in their community to insure that a sufficient number of available physicians, particularly young interns and residents, be encouraged to volunteer to serve their nation in the Medical Corps of the Armed Forces"

Your Committee approves the purpose of this resolution, but considers it weak, and proposes a substitute resolution as follows

"WHEREAS, the Secretary of Defense has stated that there exists an extreme emergency shortage of medical personnel in the armed forces, and

"WHEREAS, approximately 8,000 doctors had their medical school expenses, partially or completely, paid by the government under the A S T P or V-12 programs, and

"WHEREAS, approximately an equal number of doctors were deferred from service in World War II for the purpose of completing their medical education, who themselves paid for their education, and

"WHEREAS, it would seem unjust to require those doctors in the armed forces who are at present finishing their tour of duty or about to finish, to remain on duty, or to request these doctors who have served and been discharged from the armed forces to return to active duty, and

"WHEREAS, a draft of doctors is undesirable, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York endorses the efforts of the Secretary of Defense to secure immediate volunteers from those doctors who have not yet served in the armed forces, and who (*a*) had their medical school expenses, partially or completely, defrayed by the government under the A S T P and V-12 programs, or (*b*) were deferred from service in World War II for the purpose of completing their medical education at their own expense."

I move the adoption of this report—this portion of the report rather

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. SMITH This report is signed by Dr Kenneth Bott, Dr Charles Lakeman, Dr Thomas P McCarthy, and Dr Scott Lord Smith, and I move the adoption of the report as a whole.

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN Thank you, Dr Smith.

Section 143

Night Session

SPEAKER ANDRESEN It is now six o'clock. We still have six reference committees to hear from A couple of their reports will involve considerable discussion. The question comes up are we to adjourn now and meet again tonight in this room or are we going to stay now for another half or three-quarters of an hour and perhaps dispose of at least three or four of them and take up the rest tomorrow, or are we going to take all of them up tomorrow and perhaps run into the afternoon, which seems rather certain at present

DR. JOSEPH A. GEIS, *Essex* I make a motion that we adjourn now and reconvene at eight o'clock tonight

DR. JAMES F ROONEY, *Trustee* I second that.

SPEAKER ANDRESEN Is there any discussion of that motion?

DR. ARTHUR A FISCHL, *Queens* I would be opposed to that Some of us are going out, we will get back late I would suggest that this session go on for another three-quarters of an hour and keep the evening free

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN I am sorry to say the motion is carried. We will meet again at 8 o'clock

The session adjourned at 6 05 P M., to reconvene at 8 P M

TUESDAY EVENING SESSION

May 4, 1949

The session reconvened at 8 35 P M.

SPEAKER ANDRESEN Although we are not all here, we have a quorum, and I think we had better get started.

I must apologize for getting here late, but one of our elder statesmen asked several of us to dinner, including me I don't know whether he was not trying to put over something political, but I was so busy eating I did not care, as a matter of fact, I left without even eating my dessert

Our first report is from the Reference Committee on Report of Council, Part VI, Economics, of which Dr. Gamble is the chairman.

Section 144 (*See 49, 94*)

Report of Reference Committee on Report of the Council, Part VI Complaint against the Welfare Department of Nassau County

DR. THOMAS O GAMBLE, *Albany* Mr Speaker and members of the House, as you know, this morning a resolution which was introduced by the Nassau County Society in complaint against the Welfare Department of Nassau County was referred back to our Committee

The Committee has met and heard many delegates and, after due consideration, has come to the con-

clusion that the solution of the County Society's difficulties with the Welfare Department are local and, therefore, we recommend that the resolution be disapproved

I move the adoption of this report.

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GAMBLE Now I move the adoption of the report of the Reference Committee, Part VI, as a whole.

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 145

Report of Reference Committee on Report of Council, Part III, Public Health Activities (A) Industrial Health

DR. HARRY GOLEMBE, *Sullivan* The Subcommittee on Industrial Health under the chairmanship of Dr Leonard Greenburg held a meeting on December 9, at which time representation from the Council Committee on Public Health and Education, officers of the Medical Society of the State of New York, representatives from the State Department of Health, and the Commissioner of Health of the City of New York were present Among the subjects discussed were

1 Postgraduate instruction in industrial health and occupational diseases

2 The Joint Occupational Disease Cancer Committee of the New York State Departments of Labor and Health and the U S Public Health Service Your Subcommittee recommends that a pamphlet prepared on this subject be distributed through the Medical Society of the State of New York, that publicity be given to it in the NEW YORK STATE JOURNAL OF MEDICINE, and that the Medical Society of the State of New York appoint a representative to this Committee Your Reference Committee endorses these requests

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

DR. GOLEMBE 3 Your Subcommittee further discussed the advantages of reporting occupational diseases in New York State which might require a change in the State Labor Law stating what occupational diseases must be reported Your Reference Committee endorses this recommendation, and is also in agreement that the chairman of your Subcommittee compile a list of occupational diseases for publication in county society bulletins, the NEW YORK STATE JOURNAL OF MEDICINE, and the *Health News* of the New York State Department of Health.

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GOLEMBE The Committee discussed various other subjects, among them medical bureaus, the need of compiling a list of physicians working in industrial plants, and industrial rehabilitation, although no specific recommendations were made Your Reference Committee feels that this subject is of great importance, that the Committee should continue their work in this field so as to be able to bring in specific recommendations Your Reference Committee also commends the work being done on postgraduate instruction and industrial health and would like to see that this phase of postgraduate instruction is taken up by more of the county societies than has been the case in the past.

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 146

Report of Reference Committee on Report of the Council, Part III Rural Medical Service

DR. HARRY GOLEMBE, *Sullivan* Rural Medical Service There is no indication that the Council Committee on Rural Medical Service, under the chairmanship of Dr Dan Mellen, held any meetings during the past year Their report is a general one and indicates that there is a desire in New York State to attract physicians, dentists, and nurses into the rural areas, and that while this problem has not made too much progress, its development would seem to depend on the development of good hospital facilities A great amount of work has already been done in this direction during the past year through the Joint Hospital Survey and Planning Commission and, if this continues, adequate hospital facilities will be more and more available in the rural areas and should help in the practice of medicine in these areas Your Reference Committee is of the opinion that this work is of such great importance that the Committee could perhaps be more energetic in continuing its activities and that all interested bodies, such as the medical schools, State Medical Society, the Grange, 4-H Clubs, and the Joint Hospital Survey and Planning Commission be constantly contacted under the sponsorship of this committee to carry out the extension of medical services and facilities in the rural areas

It is also recommended that the Committee continue its cooperation with the American Medical Association which annually holds a meeting to discuss these problems One of the members of the Council Committee attended such a meeting, representing the State Medical Society, in Chicago, on February 3, 1949

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 147

Report of Reference Committee on Report of Council, Part III Problems of Alcoholism

DR. HARRY GOLEMBE, *Sullivan* Problems of Alcoholism Despite its short existence, your Special Committee on the Problems of Alcoholism, under the able chairmanship of Dr Milton G Potter, has already done a splendid job There is no question but that the interest in this problem is widespread among the general public and, as is well put in the committee report

> "It behooves the component county societies to be alert to their local situation and take the leadership in plans for the rehabilitation of the alcoholic. This is a medical and public health problem primarily and therefore a medical and a public responsibility The public looks to the medical society for leadership, and we should be ready and equipped to take that leadership"

It is shown in this report that progress is being made by several subcommittees in different sections of the State, and it is hoped that many more areas will continue in this field of work. The report further states that the State Society was represented

on the board of directors of the Rehabilitation Center which is administered by the School of Medicine of the University of Buffalo, but your Reference Committee advises that this was an unofficial representation. It is felt by your special committee that the results of this work may very well guide the future extension to other committees of this type of study, treatment, and rehabilitation. Your Reference Committee appreciates the importance of the Rehabilitation Center as administered by the University of Buffalo, and recommends that the State Society be officially represented on their board of directors

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried.

DR. GOLEMBE The recommendations made by the committee are endorsed by your Reference Committee with the exception of Recommendation No 2 which asks that a definite appropriation should be allotted to this committee for expenses In the report of the committee it is noted that the State Medical Society budget for 1949 has already approved $750 toward the work of this committee, hence this recommendation is no longer necessary The other recommendations, as follows, are endorsed by your Reference Committee, and it is recommended that the House of Delegates go on record as favoring these recommendations

1 The members of this special committee need not be limited to the House of Delegates, but may include any member of the State Society

2 That encouragement of the formation of county committees be continued.

3 That the work on the reference booklet on alcoholism be continued

4. That members of county societies be encouraged to assume leadership of the many lay committees which are being organized for education on alcoholism

5 That the education of the profession in this problem be continued

6 That local county committees clear through the State Committee any projects on alcoholism under advisement

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. GOLEMBE At the request of the chairman of the Special Committee on the Problems of Alcoholism the following recommendations were discussed

1 "That the activities of the Committee on Problems of Alcoholism of the Medical Society of the State of New York be closely coordinated with those of the Subcommittee on Problems of Alcohol of the New York State Interdepartmental Health Council." It might be stated here that "the Interdepartmental Health Council consists of the New York State Commissioners of Health, Mental Hygiene, Social Welfare, Education, and Correction."

2 "That the Council Committee on Public Health and Education and the Special Committee on the Problems of Alcoholism, *with the State of* New York Department of Health, arrange a Symposium on the Problems of Alcoholism to be held on the 'Teaching Day' at the next annual meeting of the Medical Society of the State of New York"

Your Reference Committee is in agreement with these recommendations and recommends their approval by the House of Delegates. I so move.

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

DR. GOLEMBE I move the adoption of the report of the Reference Committee, Part III, as a whole

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Golembe. I would like to announce that this will be the last opportunity for the introduction of any resolutions. Are there any such resolutions?

Section 148 (*See 196*)

General Practitioner—Section, Training

DR. J J ZIMRING, *Nassau* This resolution was adopted at a meeting of the Medical Society of Nassau County on April 26, 1949

"WHEREAS, we feel that the best interests of the general practitioner and of the patients he serves should be given consideration, therefore be it

"*Resolved*,

"1 That the general practitioner should be given special training in medical school to fit him for general practice,

"2 That hospital internship should be so arranged that the general practitioner be trained for general practice for at least two years,

"3 That a Section for General Practice should be established in all hospitals in the country, and especially in those which train interns and have the approval of the American Medical Association,

"4. That hospitals should arrange for general practitioners to be on their staffs,

"5 That this program be presented at the House of Delegates of the A.M.A. in June, 1949"

SPEAKER ANDRESEN I will refer that to the Reference Committee on Report of the Council, Part I, of which Dr Scott Lord Smith, of Dutchess, is the chairman.

The next committee that is ready has a report which will keep us busy for some time. Having had nine resolutions referred to it, some of them controversial, I expect we will be very much occupied for some little time I am now going to call on Dr Andrew A Eggston to report for the Reference Committee on Miscellaneous Business (A)

DR. EGGSTON Mr Speaker and members of the House of Delegates, I won't keep you long, I will just keep you forever, that is all (*Laughter*) I have not had nine resolutions referred to my committee, but eleven, which I will now proceed to throw at you, one by one

Section 149 (*See 51*)

Report of Reference Committee on Miscellaneous Business (A) The American Medical Association Assessment

DR. ANDREW A EGGSTON, *Westchester* The first resolution is one introduced by Dr Reid R. Heffner, of Westchester I don't know why I placed that first, but somehow or other it just happened

"WHEREAS, the President of the United States, *representatives of the Federal Security Agency*, and certain Senators and Representatives, are using all possible means to achieve the enactment of some form of legislation which will include a program of compulsory health insurance, and

"WHEREAS, we believe the promoters of this legislation are men not qualified to evaluate health needs nor methods of providing health services, but are influenced by political pressure from or-

ganized groups that are interested in 'free medical care' and socialistic trends in government, and

"WHEREAS, it is universally conceded that we have the best medical care in the world and the best medical schools, research centers, hospitals, and public health systems, and

"WHEREAS, compulsory health insurance leads inevitably to a deterioration in the quality of medical care, to greatly increased over-all costs in providing medical care, and eventually to a complete socialistic economy, and

"WHEREAS, the practicing physicians of the United States who are best qualified to evaluate health needs and methods of providing medical care are overwhelmingly opposed to any system of compulsory health insurance, e.g., in Westchester County, on the basis of replies to a questionnaire sent to the 1,100 physicians in the county 95 per cent indicated unalterable opposition, and

"WHEREAS, the only means of interpreting the facts concerning the hazards involved in government medicine and the cost thereof to the public is through education, now, therefore be it

"*Resolved*

"1 That the Medical Society of the State of New York, recognizing the welfare of the public, records its official approval,

and we have changed that word "recognizing" to "mindful of"

"not only of the $25 special assessment of the American Medical Association, but also of additional levies, if needed, in order to carry out an intensive nation-wide program of public education in the interest of good medical care for everybody

2 Furthermore, that the House of Delegates of the Medical Society of the State of New York recommends that

and we have changed that word "that" to "to"

"to the House of Delegates of the American Medical Association the establishment of annual dues for all of its members, beginning in 1950, such dues to be available for the advancement of the Association's national educational campaign"

Your Reference Committee approves of this resolution as amended, and I move that it be adopted

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 150 (*See 26*)

Report of Reference Committee on Miscellaneous Business (A) Lien Law

DR. ANDREW A EGGSTON, *Westchester* The next resolution was introduced by Dr Abraham Koplowitz of Kings.

(*Resolution given in full—Section 26*)

Your Reference Committee approves of this resolution, with the suggestion that the endorsement of the bill by the governing body of the New York Bar Association be solicited

We move the adoption of this resolution

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 151 (*See 53*)

Report of Reference Committee on Miscellaneous Business (A) X-ray Treatment and Radium Treatment

DR. ANDREW A. EGGSTON, *Westchester* Next is a resolution introduced by Dr Morris Weintrob, of Kings County

(*Resolution given in full—Section 53*)

Your Reference Committee approves of this resolution, and I move its adoption.

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

DR. JAMES R. REULING, *Queens* The purpose of this is not entirely clear to me, and I don't know whether it has to do with the Medical Practice Act and the amending of that or not.

DR. EGGSTON I think it is the introduction of the Clancy Bill for the practice of x-ray, that no one should practice x-ray or roentgenology without being licensed, but no such bill will ever be put through unless something is done to take care of the fellow who has been practicing a number of years doing radiology This clause takes care of the grandfather clause, provided they have been in business five years

DR. REULING Been in what business?

DR. EGGSTON Been in the x-ray business, been in the practice of roentgenology I should say

SPEAKER ANDRESEN Is that explanation satisfactory? If so, you may continue, Dr Eggston, with your report The recommendation of the Reference Committee, carrying with it the adoption of the resolution, has been already carried.

Section 152 (*See 42*)

Report of Reference Committee on Miscellaneous Business (A) Endorsement of the American Medical Association 12-Point Program

DR. ANDREW A EGGSTON, *Westchester* The next resolution is quite a lengthy one that was introduced by Dr J P Henry, of Monroe

(*Resolution given in full—Section 42*)

This resolution is very broad in scope and devoid of specificity, however, it contains many worthy ideas for comment

First, Monroe County strongly and thoughtfully approved and endorsed the 12-point program of the American Medical Association Article 4, which advocates a healthy interest in medical economics, is open to analysis

(*a*) Prior publicity to county and state associations by the American Medical Association for advanced instructions to the delegates to approve action on resolutions to be presented to the House is difficult of achievement and obviously impractical.

(*b*) The American Medical Association *Journal* is asked for comfortable arrangements for minority expressions and a democratic forum At present, any member of the medical profession may, unhampered and unfettered, express his opinions in writing to the editor with the request that these be published in the correspondence column. How many individuals read this is open to question Your Committee endorses the establishment of a forum for the discussion of timely topics It is certainly true that more interest should be stimulated at the present time

(*c*) Regarding the Bureau of Information, any lack of information of our profession about medical economics is either due to indifference, lethargy, or hypothyroidism, as all that is needed is the ability to read and listen However, there should be published in the local medical journals the letters of Secretary Lull, of the American Medical Association, and likewise the bulletins issued from the Washington office These are all instructive to the medical profession If the letters are too long they should be abstracted and read or printed for the benefit of the county members. A formula to awaken a sense of

on the board of directors of the Rehabilitation Center which is administered by the School of Medicine of the University of Buffalo, but your Reference Committee advises that this was an unofficial representation It is felt by your special committee that the results of this work may very well guide the future extension to other committees of this type of study, treatment, and rehabilitation Your Reference Committee appreciates the importance of the Rehabilitation Center as administered by the University of Buffalo, and recommends that the State Society be officially represented on their board of directors

I move the adoption of this recommendation

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried.

DR. GOLEMBE The recommendations made by the committee are endorsed by your Reference Committee with the exception of Recommendation No 2 which asks that a definite appropriation should be allotted to this committee for expenses In the report of the committee it is noted that the State Medical Society budget for 1949 has already approved $750 toward the work of this committee, hence this recommendation is no longer necessary The other recommendations, as follows, are endorsed by your Reference Committee, and it is recommended that the House of Delegates go on record as favoring these recommendations

1 The members of this special committee need not be limited to the House of Delegates, but may include any member of the State Society

2 That encouragement of the formation of county committees be continued.

3 That the work on the reference booklet on alcoholism be continued

4 That members of county societies be encouraged to assume leadership of the many lay committees which are being organized for education on alcoholism

5 That the education of the profession in this problem be continued

6 That local county committees clear through the State Committee any projects on alcoholism under advisement

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. GOLEMBE At the request of the chairman of the Special Committee on the Problems of Alcoholism the following recommendations were discussed

1 "That the activities of the Committee on Problems of Alcoholism of the Medical Society of the State of New York be closely coordinated with those of the Subcommittee on Problems of Alcohol of the New York State Interdepartmental Health Council." It might be stated here that "the Interdepartmental Health Council consists of the New York State Commissioners of Health, Mental Hygiene, Social Welfare, Education, and Correction"

2 "That the Council Committee on Public Health and Education and the Special Committee on the Problems of Alcoholism, with the State of New York Department of Health, arrange a Symposium on the Problems of Alcoholism to be held on the 'Teaching Day' at the next annual meeting of the Medical Society of the State of New York."

Your Reference Committee is in agreement with these recommendations and recommends their approval by the House of Delegates I so move

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

DR. GOLEMBE I move the adoption of the report of the Reference Committee, Part III, as a whole.

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Golembe.

I would like to announce that this will be the last opportunity for the introduction of any resolutions.

Are there any such resolutions?

Section 148 (*See 196*)

General Practitioner—Section, Training

DR. J J ZIMRING, *Nassau* This resolution was adopted at a meeting of the Medical Society of Nassau County on April 26, 1949

"WHEREAS, we feel that the best interests of the general practitioner and of the patients he serves should be given consideration, therefore be it

"*Resolved*,

"1 That the general practitioner should be given special training in medical school to fit him for general practice,

"2 That hospital internship should be so arranged that the general practitioner be trained for general practice for at least two years,

"3 That a Section for General Practice should be established in all hospitals in the country, and especially in those which train interns and have the approval of the American Medical Association,

"4. That hospitals should arrange for general practitioners to be on their staffs,

"5 That this program be presented at the House of Delegates of the A.M.A. in June, 1949"

SPEAKER ANDRESEN I will refer that to the Reference Committee on Report of the Council, Part I, of which Dr Scott Lord Smith, of Dutchess, is the chairman

The next committee that is ready has a report which will keep us busy for some time Having had nine resolutions referred to it, some of them controversial, I expect we will be very much occupied for some little time I am now going to call on Dr Andrew A. Eggston to report for the Reference Committee on Miscellaneous Business (A)

DR. EGGSTON Mr Speaker and members of the House of Delegates, I won't keep you long, I will just keep you forever, that is all (*Laughter*) I have not had nine resolutions referred to my committee, but eleven, which I will now proceed to throw at you, one by one

Section 149 (*See 51*)

Report of Reference Committee on Miscellaneous Business (A) The American Medical Association Assessment

DR. ANDREW A EGGSTON, *Westchester* The first resolution is one introduced by Dr Reid R. Heffner, of Westchester I don't know why I placed that first, but somehow or other it just happened

"WHEREAS, the President of the United States, representatives of the Federal Security Agency, and certain Senators and Representatives, are using all possible means to achieve the enactment of some form of legislation which will include a program of compulsory health insurance, and

"WHEREAS, we believe the promoters of this legislation are men not qualified to evaluate health needs nor methods of providing health services, but are influenced by political pressure from or-

DR. FISCHL I think the Committee should go into a further discussion of this problem

SPEAKER ANDRESEN They point out that the American Medical Association is a national or Federal association composed of autonomous county and state societies

DR. EGGSTON Right, and that a change in its basic concepts, we agree, should occur with the changing order, but now is not the opportune nor strategic time

DR. JOHN J MASTERSON, *Kings* I think earlier today you had an example of the persistence of resolutions before this House I do not know what action the American Medical Association will take on this resolution Twice in the past, one time in San Francisco and again in Chicago, a resolution from this Society on this subject was presented to the House of Delegates, and both times we were told just what Dr Andresen told us tonight.

I do not see any harm in presenting this resolution to the House of Delegates of the American Medical Association Maybe they will turn it down again, but maybe the time has arrived when the other states may take a different attitude than they have in the past, so I would favor that this resolution be sent to the House of Delegates of the American Medical Association or rather that the delegates from this Society be directed to present this resolution to the House of Delegates of the American Medical Association

SPEAKER ANDRESEN You are against the resolution I take it then, Dr Masterson?

CHORUS No

DR. MASTERSON I think the resolution should be presented to the A.M.A. by our delegates

SPEAKER ANDRESEN Then you are against the recommendation of the Committee?

CHORUS No

DR. EGGSTON We are for the resolution in principle

SPEAKER ANDRESEN There are two points involved in the Committee's recommendation First, that they agree in principle with the resolution as presented, and second, that they feel now is not the time to present it.

DR. EGGSTON Now is not the opportune time, yes, but we approve of the resolution in principle. Now if some amendment is made that it be introduced at the present time that would take care of the matter in the way Dr Masterson has suggested.

DR. MASTERSON I would so move

The motion was seconded by several.

SPEAKER ANDRESEN In other words, that brings us back again to the original resolution?

DR. SAMUEL Z FREEDMAN, *New York* I move the adoption of the original resolution.

DR. SAMUEL B BURK, *New York* I second that.

SPEAKER ANDRESEN Is there any further discussion of this amendment?

DR. JACOB WERNE, *Queens* I take it there has been an amendment?

SPEAKER ANDRESEN The recommendation of the Reference Committee has been amended to the effect that it be presented to the A.M.A.

DR. WERNE The recommendation of the Reference Committee was that it be approved in principle, is that right?

SPEAKER ANDRESEN Yes, and the amendment is that it shall be brought up by our delegates at the A.M.A. meeting next month.

DR. JAMES R REULING, *Treasurer* Point of order, the Reference Committee's report is one action, a positive action and the amendment is an immediate negation of that action.

CHORUS No, sir

DR. REULING If they want to defeat the motion, it should be done in that way rather than by an amendment.

DR. WERNE I would like to support Dr Reuling's interpretation I think that this amendment should be declared out of order because the motion before this House is the recommendation of Dr Eggston's Committee to disapprove that resolution which asks that we instruct our delegates to the American Medical Association to introduce this resolution Therefore, this amendment is out of order, and consequently the matter before the House is the discussion of Dr Eggston's committee's report disapproving this resolution—

DR. EGGSTON We don't disapprove of the resolution We approve it in principle

DR. WERNE Disapproving of the introduction of that resolution

DR. EGGSTON At the present time.

SPEAKER ANDRESEN If we don't recognize this amendment, we have the original recommendation of the Committee before us If that recommendation is then not carried, the motion is lost entirely

DR. WERNE I would like to speak on the recommendation of *Dr Eggston's Committee*

SPEAKER ANDRESEN I still want to get enlightenment on this subject of the amendment. I feel also that a negative motion to a positive resolution is wrong May I ask Dr Rooney for advice?

DR. JAMES F ROONEY, *Trustee* This is most highly complimentary Is it a question as to this point of order that was raised by my friend, Reuling, that Dr Masterson's motion to amend the Committee's report is out of order? Is that the point?

SPEAKER ANDRESEN That is the point

DR. WERNE Yes, sir, I agree, and those of us who want to support the resolution referred to Dr Eggston's Reference Committee can do so by defeating his recommendation, and then can secure the instruction to introduce it into this year's House of Delegates of the American Medical Association

DR. ROONEY As a matter of parliamentary law I can only answer you through the Speaker, I am sorry In my opinion any amendment modifying the report of a reference committee that is germane to the matter under report is perfectly in order, Mr Speaker

SPEAKER ANDRESEN The amendment is under discussion

DR. THOMAS M D'ANGELO, *Queens* May I rise to a point of order Does this House of Delegates vote on the report of the Committee or does it vote on the original resolution?

SPEAKER ANDRESEN In every case we vote on the report of the reference committee's opinion regarding the original resolution

DR. CYRIL DRYSDALE, *Suffolk* In that case, will the Committee put its report in plain English and say that while they approve of the resolution in principle, they now disapprove of the resolution—

DR. EGGSTON The introduction of the resolution, at this time

DR. DRYSDALE Which is exactly what he is doing, and then we can vote on that

DR. EGGSTON There was no disapproval of the resolution, but we disapproved of introducing it in the House of Delegates of the American Medical Association at this time, because having been there at the last meeting which was held just last December it got no place I think when the thing has been more or less settled nationally, it can be taken up and clarified, but the Committee is in favor of the House of Delegates' amending this just as they see fit.

responsibility in the average physician appears almost as illusive as the etiology of cancer

(*d*) Section (*d*) is really controversial and lacks clarity, particularly in regard to the source and administration of any medical subsidy

Your Reference Committee disapproves of this resolution as a whole, and I so move

The motion was seconded.

SPEAKER ANDRESEN May I ask, Dr Chairman, does that include the summary of eight resolutions?

DR. EGGSTON No, that is all different sections of the same resolution

SPEAKER ANDRESEN Is there any discussion? You have a mouthful to think about

DR. LEO F SIMPSON Does not the Reference Committee approve of the first two resolutions and object to the last four?

DR. EGGSTON There are no separate resolutions It is all in one resolution. These are different paragraphs of the same resolution. In the first statement we said it was so broad in scope it was very difficult to present it in one resolution, anyway it would be objected to from that standpoint if for no other

SPEAKER ANDRESEN In view of the fact that we have acted on most of the provisions of that today, I think the chairman is rather wise to put them all together

The question was called, and the motion was put to a vote, and was carried

SPEAKER ANDRESEN The recommendation of the Reference Committee is adopted, and the original resolution is lost

Section 153 (*See 48, 160*)

Report of Reference Committee on Miscellaneous Business (A) Approval of Principles of the Association of American Physicians and Surgeons

DR. ANDREW A. EGGSTON, *Westchester* Resolution introduced by Dr Thomas O Gamble, of Albany

(*Resolution given in full—Section 48*)

While all analytic and unbiased medical minds welcome the aid of any organization which has at heart the medical care of the people, the American Medical Association for a century has been the mother and mentor of all American medicine This is true in spite of the ingratitude in many high places It, therefore, by tradition and experience, is well equipped, through a rejuvenated public relations mechanism and its national educational campaign, to carry its own torch, yet any group, educational, medical or otherwise, which has any constructive suggestions or programs, will be welcome to offer these in trust to the American Medical Association

Past experience teaches the advisability of using the one and best qualified agency, that is, the American Medical Association, to advocate all that is good for the doctor and the sick There must be unified intent and effort

Your Reference Committee could not agree to approve of this resolution, although its advocates won our admiration and respect for their sincerity Therefore, we recommend disapproval of this resolution, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried

Section 154 (*See 35*)

Report of Reference Committee on Miscellaneous Business (A) Amendment of Article V of Constitution and Bylaws of the American Medical Association

DR. ANDREW A. EGGSTON, *Westchester*. The next resolution is that introduced by Dr J Homer Cudmore, of New York.

(*Resolution given in full—Section 35*)

Your Reference Committee has this recommendation After a rather thorough discussion your Reference Committee is in full accord with the text and implied fraternal instincts in this resolution. It is our wish and we know it is your desire that a constant effort be exerted to take a definite position corrective of any undemocratic situation in medicine. A physician at all times is aware of the equality of blood, flesh, and life, nevertheless we are at present compelled to recognize that the American Medical Association is a national or Federal association composed of autonomous county and state societies. That a change in its basic concepts, we agree, should occur with the changing order, but now is not the opportune nor strategic time We trust that continued enlightenment in the right place and time will correct any inequality

Your Reference Committee approves of this resolution in principle

SPEAKER ANDRESEN Does that include the recommendation of presenting the resolution before the House of Delegates of the American Medical Association?

DR. EGGSTON That is up to the House what it wants to do itself on that. We approve of this resolution in principle

SPEAKER ANDRESEN Just what does "in principle" mean?

DR. EGGSTON We are in favor of this resolution. The recommendation of the Reference Committee is that your Reference Committee approves of this resolution in principle, but we state above that at the present time the American Medical Association is so constituted, and because of its defeat of the same resolution last year, we do not feel now is the opportune time to introduce this into the American Medical Association We are, however, heartily in accord with the principles expressed in the resolution.

DR. JOHN J MASTERSON, *Kings* You are in favor of the resolution, but don't think this is the opportune time to present to the A.M A ?

DR. EGGSTON Exactly

DR. ARTHUR A. FISCHL, *Queens* There is no doubt when this resolution comes before the American Medical Association the same thing is going to happen to it as happened on previous occasions I think we can try to take some measure whereby we will accomplish a more constructive and more efficient manner of giving these unfortunate physicians some representation, probably a more direct representation in the American Medical Association. I believe the Committee should consider that aspect of it rather than take the same aspect that was presented already to the American Medical Association, the results of which we know will happen year in and year out I would rather see some effort made to give those members who may not ever be members of their own county medical societies some direct representation in the American Medical Association itself

SPEAKER ANDRESEN You are speaking in support of the Committee's recommendation I take it?

DR. FISCHL But the Committee's recommendation means nothing

SPEAKER ANDRESEN The Committee's recommendation is that they approve in principle of the resolution, but they don't think at this time the resolution should be presented before the House of Delegates of the American Medical Association, is that right?

DR. EGGSTON That is right.

DR. WERNE Mr Speaker, I studied in the Southland, and I am quite familiar with the problem When Dr Eggston states that one of the reasons the American Medical Association feels that they should not enter into this controversy is because they don't want to oppose local autonomy, I think he does so with his tongue in his cheek. No one raises the question of local autonomy Should any county medical society in the country decide suddenly to permit dichotomy in which was involved the division of fees, they would stop you pretty quickly and throw you out of the American Medical Association There is no reason why the American Medical Association centrally cannot tell some of the Dixiecrat states to admit these colored men on the same basis they do the white man We should take a strong stand here, and if we are defeated again, let us bob our heads up and be defeated still again, but stand up for the principle that was enunciated.

DR. RAWLS Mr Speaker, you ruled me out of order when I tried to amend a substitute motion before I insist a substitute motion can be amended, and I think I would be borne out in that by the parliamentarians here that a substitute motion can be amended. However, I would like to speak on the substitute motion as offered by Dr Rooney, and I would like to offer an amendment to that

SPEAKER ANDRESEN The great trouble then is that we have a third amendment We have a second amendment in the form of a substitute motion before us, and you cannot have more than two amendments to any motion

DR. RAWLS It does not make any difference how many amendments you have If you have a substitute motion, that substitute motion can be amended, and I appeal from the ruling of the Chair that it cannot be

DR. SAMUEL Z FREEDMAN, *New York* I suggest we ask Dr Bauer on that question. Let us get his advice on it

DR. LOUIS H BAUER, *Past President* You can have as many substitute motions as people care to make You can only have one amendment to an amendment, but you can have as many as a dozen substitute motions, and then you can take them up in the reverse order, and dispose of them in that manner, one at a time

DR. RAWLS Can we amend a substitute motion?

DR. BAUER Strictly speaking, a substitute motion should not be amended, but another substitute motion made of it In place of it, you make another substitute motion

DR. RAWLS Then I offer this as a substitute motion. As the president of the county society that offered this resolution I would like to make a statement I am very much in favor of the resolution as offered. I realize the difficulties involved in passing this particular resolution to the House of Delegates of the American Medical Association. I also do not wish to see this defeated because I would like to see some success on what we have been trying to do

I offer this substitute motion that we approve of this resolution that has been presented, and that we memorialize the American Medical Association to appoint a special committee to solve this problem.

SPEAKER ANDRESEN Is there any discussion?

DR. FREEDMAN Has it been seconded?

DR. STEPHEN R MONTEITH, *Rockland* I will second that

SPEAKER ANDRESEN Hearing no discussion, I will put that to a vote All in favor of that substitute motion say—

DR. FLOYD S WINSLOW *Councilor* Mr Speaker—

SPEAKER ANDRESEN I asked for discussion, and nobody got up

DR. J STANLEY KENNEY, *Councilor* It has not been voted on yet, so it is not too late to discuss it

SPEAKER ANDRESEN The vote has been called, therefore, there can be no more discussion Am I right?

DR REULING Until the negative has been called for, the member has the privilege of the floor I believe, Mr Speaker The negative of the vote has not been taken, and I would like to discuss the motion by simply pointing out we are memorializing the American Medical Association to solve a problem. That in itself is a ridiculous motion We can memorialize them to study it I don't think that Dr Rawls meant what his motion said You can't ask them to solve it It can't be done

DR. RAWLS In view of this objection then, may I suggest a study leading toward a solution?

DR. KENNEY May I rise to a point of order, sir? I don't know whether I am out of order or not—

DR. REULING I would like to continue if I might

SPEAKER ANDRESEN Dr Reuling has the floor

DR. REULING I would simply like to make a statement and emphasize something that has already been said to aid in clarifying our thinking The American Medical Association is a federation of state associations In Texas they permit chiropractors to practice medicine. How would you feel if the Texas State Association memorialized the House of Delegates to insist that New York State admit chiropractors to the practice of medicine? It just is about as simple as that

I am in thorough and hearty agreement with the intent of the resolution Dr Rooney had a very good solution for it You can belabor this so much that you build up additional resistance I have had good intelligent men tell us that it is only a matter of a few years until this is solved. It is not going to be solved by calling them names and telling them that they are unfair continually A resolution such as the substitute motion that Dr Rooney made is the sort of sugar that will eventually accomplish what I am sure the practitioners in New York State want

DR. WINSLOW In view of the fact that you have allowed some of the more intelligent men to discuss this problem, may I now speak?

SPEAKER ANDRESEN Yes, sir

DR. WINSLOW In conformance with the wishes of the House of Delegates of the Medical Society of the State of New York at three sessions of the House of Delegates of the American Medical Association within the past ten years I have presented a resolution similar to the one before you now, and I now rise to speak against all substitute motions and all amendments and strive to uphold the original recommendation of the Reference Committee

May I respectfully point out to you that whatever your sympathies may be, there is probably a better solution of this situation. Each time this has been presented, the ruling of the American Medical Association has been that they had no constitutional rights to prescribe what regulations should govern the admission to the constituent county or state societies They just cannot do it

Now if it is the desire of a group of men in this House to demonstrate the fact that there is no racial bias here, and that we do proceed under democratic principles, then the thing for them to do is to present the name of a man belonging to any race that they think is not receiving proper democratic treatment and allow him to be nominated here for this position and by either winning or losing he thereby demonstrates the democracy of the organization.

That is the reason we reported it out that we approve of it in principle We are not against the resolution

DR. ROONEY I will offer a substitute motion. The substitute motion is this That this House approves of this resolution in principle, and that our delegates be instructed to convey that information to the House of Delegates of the American Medical Association

The motion was seconded by several.

SPEAKER ANDRESEN A substitute motion is now before the House

DR. WILLIAM B RAWLS, *New York* I would like to make an amendment to the substitute motion.

SPEAKER ANDRESEN You cannot do that We have already an amendment, then a substitute motion, which is the second amendment, so you cannot have another amendment

DR. RAWLS You can amend a substitute motion according to my interpretation of parliamentary rules

SPEAKER ANDRESEN A substitute motion is an amendment, and we have one amendment before that.

DR. WERNE May I raise a point of order? I think we have a very simple situation here Dr Eggston's Committee passed on this resolution in a manner that is obviously not acceptable to some of the members of this House of Delegates

CHORUS Use the microphone We can't hear

DR. WERNE Dr Eggston's Committee has passed on this resolution in a manner that is obviously not satisfactory to some of the members of this House of Delegates Let us dispose of this problem by acting on Dr Eggston's recommendation regardless of just how he wants us to believe it means Let us act on that directly, and those of us who are opposed to that restriction can defeat it, and by that defeat we can reactivate the strength of the original resolution referred to him.

SPEAKER ANDRESEN The discussion must be limited to discussing the substitute motion Is there any further discussion on the substitute motion?

DR. PETER M MURRAY, *New York* Mr Speaker and members of the House of Delegates, I have been a member of this House of Delegates for over twelve years, and time and again I have had my heart gladdened by the deep, forward understanding and support that this House of Delegates has always given any proposal to safeguard the real democracy which we profess to have in this country It is a great pleasure for me to sit here and hear men rise to the defense of the original resolution

May I say in deference to the chairman of the Reference Committee that he is sincerely and honestly in favor of the resolution as originally proposed, and it is only because of what has been termed political expediency, because it was turned down last year, that there is any hesitation.

My heart goes out to Dr Winslow, one of our senior elder statesmen, who presented this resolution last year at the American Medical Association He was turned down, and no man likes to be turned down, but may I say to you, Dr Winslow, from the comments I have heard around me New York is living up to the finest traditions of democracy when they insist that we ought to take a fair and square stand on the morality of this issue, whether the American Medical Association turns it down or not. I believe the Medical Society of the State of New York does itself proud and lives up to the finest traditions of the medical profession when it does such a thing

Within the last few weeks you have read in the newspapers reports coming from a celebrated Negro citizen, Mr Paul Robeson, in which he made the statement that Negroes would not fight in the defense of this country should we ever become attacked by or wish to fight against a totalitarian form of government Today I came in possession of a clipping, which I wish to share with you, because it expresses my sentiments and the sentiments of the vast majority of Negro citizens of this country This clipping is as follows

"We owe a debt of gratitude for the fair, intelligent and balanced replies to Mr Paul Robeson's statements in Paris, written by Max Yergan and Ivan Leslie Harry They show us how much we lose by our lack of respect for the Negro race, how much we gain by their contributions—as witness the work accomplished by Dr Ralph Bunche. As for Paul Robeson, friends who have known him for many years can only have sympathy for him, he is completely misled and his reactions can be explained by many justifiable accusations against us I wish these replies could be reprinted in every newspaper in the United States

"We haven't too much time left to change our attitude toward the Negro race and other minorities We should be glad we can still open our eyes and see, before the Communists gain further strength."

I listened yesterday to Dr Bauer in his eloquent appeal in favor of the World Medical Association, and I wonder how long it is going to be before he is going to be embarrassed by having some of these nations to whom we offer moral leadership point to us and say we do not come into court with clean hands. What are you going to do about Negro doctors in your own Southland?

Ladies and gentlemen, I submit it is not primarily for the interest of the Negro doctors who are excluded from membership in the American Medical Association in seventeen states and the District of Columbia, but it is rather for the integrity of yourselves that you cannot afford to do less than to stand fair and square and support this resolution. We don't have to win, but we have to be true to our better selves, and I have every confidence that this House of Delegates is going to do the square thing today as it has done over the twelve years since I have been a member of this House of Delegates

I thank you! (*Applause*)

SPEAKER ANDRESEN May I just say that I was also present last year and the year before when this type of motion was defeated in the House of Delegates of the American Medical Association I don't think it is good for any cause to be overwhelmingly defeated year after year, and while I am not supposed to express an opinion it seems to me that the substitute motion, which requires our delegation to state to the House of Delegates of the American Medical Association that we have adopted this in principle, would make a much better impression than to have a motion which would be ridiculed and defeated as it was last year

DR. WERNE On the motion, I have not had an opportunity to speak on the motion.

SPEAKER ANDRESEN You spoke on the substitute motion a minute ago

DR. WERNE I ask for permission to speak again.

SPEAKER ANDRESEN That will require a majority vote Am I right?

DR. WERNE I still ask for permission to speak again.

SPEAKER ANDRESEN All in favor of allowing Dr Werne to speak again say "Aye", contrary, "No" It is carried. You may speak.

medical societies will admit them so they may be protected in their relationship to the American Medical Association

As has been said here before, on two or three occasions a resolution of this sort has been introduced, and the reference committee has reported each time that it was contrary to the Constitution and Bylaws of the American Medical Association The previous resolutions, as I recall, suggested no amendment to the Constitution and Bylaws of the American Medical Association There has been such a suggestion now

The proposition of Dr Rawls is not so weasley-worded as it was accused of being, because I believe that a committee of physicians of the American Medical Association, including certain Southern physicians, might work out a solution which would be satisfactory to everybody and give these men the recognition to which they are entitled. It is a local proposition, only every one I know, all of the officials of the American Medical Association, want to see this thing solved, and they want to see it solved in the right manner They are anxious to see the Negro physician in the South receive the same recognition which he has here in New York, and I think that Dr Murray would second what I say when I say that there certainly has been no discrimination in the State of New York against Negroes or any other race, and we would like to see that condition exist throughout the United States

There is, as you know, a proposition in Congress on the states' rights which is causing a great deal of furor How that is going to turn out, nobody knows, but what we want is to have this problem solved, and we want to adopt the method that will get the quickest solution. If introducing an amendment to the Bylaws of the American Medical Association is the quickest solution, all right, but if appointing this committee, where a group can sit down over a table and work out a solution, is the quickest way to do it, that is what we want

I am not so sure but what Dr Rawls' suggestion may be the quickest way of getting a solution It is not dodging the issue It is trying to find a solution which will give the results in the quickest fashion In any event no action can be taken by the American Medical Association for another year because an amendment to the Constitution has to lie over for a year just as it does in this Society, and if a proposition is brought in to propose such necessary amendments as may be required and in the meantime a study committee is appointed who can work out a satisfactory solution, I am not sure but that will be the quickest way of really getting results—and results are what we want It is not a question of the form of the motion or anything else, it is what will get results

SPEAKER ANDRESEN Is there any further discussion?

DR. THOMAS O GAMBLE, *Albany* Mr Speaker and members of the House, I was born and raised in Alabama. What I am going to say may not sit well with this group, but I think it probably will.

I have felt ever since I moved to New York State that the Southern Negro doctor should be recognized as a member of the medical profession. When I went South two years ago I talked to three different county societies on this very proposition. I was told that they were willing to sit down and talk this thing over and work out a proper solution, but if the North tried to force them into any action that they would set back the wheels of progress fifty years.

I believe that a conference such as has been suggested is the proper solution of this thing, and I believe that it can be worked out There are enough good decent white people in the South that will recognize the Negro as a member of the medical profession

SPEAKER ANDRESEN Is there any further discussion?

You have now before you the substitute motion which substitutes itself for the original motion Dr Angrist's substitute motion includes the original resolution plus the recommendation to bring up a constitutional amendment for consideration by the American Medical Association Do you understand what the motion is now?

DR. ROONEY No

SPEAKER ANDRESEN Does everybody understand what the motion is about?

CHORUS No

SPEAKER ANDRESEN The original Angrist motion has been substituted for all of the other substitutes which we have pertaining to the original recommendation of the Committee, which disapproved the resolution—

DR. EGGSTON We approved it in principle

SPEAKER ANDRESEN And added to that has been the recommendation to propose an amendment to the Constitution and Bylaws of the American Medical Association covering this matter, is that right?

DR ANGRIST That is correct

There were calls for the question

DR. MASTERSON I think that will take too long to solve the problem, Mr Speaker, asking the American Medical Association to change their Bylaws I don't think it can solve the problem by changing their Bylaws It will only delay the solution of this problem, as the last speaker has said.

SPEAKER ANDRESEN Possibly this might be one way of accomplishing what we want because it would call for a conference in regard to the changing of the Constitution and Bylaws, in any event.

There were calls for the question

SPEAKER ANDRESEN The question has been called All in favor of this substitute motion say "Aye", contrary, "No" The substitute motion is lost.

CHORUS Standing vote

SPEAKER ANDRESEN I think we will have to call for a standing vote. I am sorry to delay proceedings, but over here it sounded louder to the people than it did to those on the other side

DR. FREEDMAN What are we voting on now? Dr Angrist's substitute motion?

SPEAKER ANDRESEN Yes, which is what I just described All in favor of that motion, rise—

DR. ROONEY I don't think the House understands exactly what we are voting on.

SPEAKER ANDRESEN They just said they did.

CHORUS No

DR. ROONEY There certainly seems to be some confusion as to exactly what we are voting on now

SPEAKER ANDRESEN I will say it again for the third time We are voting now on a substitute motion made by Dr Angrist, which embodied the original motion plus an amendment to propose the necessary amendment to the Constitution and Bylaws of the American Medical Association covering this matter

DR. WINSLOW Could we have that original Angrist substitute motion restated by him?

DR. ROONEY Yes, and then we will know what we are voting on. It could be read by the stenographer

SPEAKER ANDRESEN It is to the effect that the delegates of this Society should propose to the House of Delegates of the American Medical Association the immediate attempt to change the Bylaws

Dr Masterson said that he could not see any harm in this resolution going up to the American Medical Association and being turned down year after year May I point out to you through the field of experience that there is a definite objection, and that is this That in connection with the presentation of this resolution there is an element that wishes to embarrass the American Medical Association, so that the press takes advantage of the situation and we get very bad press notices following the action of the American Medical Association in upholding the constitution of their organization That is the evil that flows from this situation

I think that a better analysis of the question and a better way out would be for us to present on the floor of this House as a candidate or as a nominee for delegate to the American Medical Association the name of a man who belongs to any race who you think is not getting proper democratic recognition, thereby coming nearer to solving this problem

I wish to support the original resolution of the Reference Committee

Dr. Madge C L McGuinness, *New York* I second that

Speaker Andresen I will have to confine the discussion to the substitute motion made by Dr Rawls You can clear the deck and come back to the original motion if we can get rid of these substitute motions

Dr. Morris Weintrob, *Kings* I want to say—

Speaker Andresen Will you discuss the substitute motion which was made by Dr Rawls?

Dr Weintrob I will discuss the substitute motion with this thought in mind I fail to see how the substitute motion differs in any way from the recommendation of the Committee I would have to be convinced that there is enough merit or enough substance in the substitute motion to warrant all of this discussion

In view of that, and having been partially responsible for the wording of this recommendation of our Committee, I feel that in all due justice the previous speaker should be given a great hand. We sweated with that problem considerably, and we are happy to see that all of you here are sweating too It was because we felt that it was most untimely to permit those who oppose the policies of the American Medical Association to come out and smear the American Medical Association with the sort of campaign they would love to use that we worded this resolution just the way we did in its most careful and most particularly diplomatic manner We think that it will serve the American Medical Association best if we leave it in the words which our committee suggests to you gentlemen.

Speaker Andresen Is there any further discussion of the substitute motion of Dr Rawls?

Dr. Samuel Z Freedman, *New York* On the substitute motion, just in a few words, what you are doing if you pass the substitute motion is to encourage those who are finding fault with the American Medical Association that you in New York have not the courage to stand up for what you say you believe in If we are going to be concerned about a minority of the American Medical Association, we ought to bear in mind that the American Medical Association is considered by us—and we hope it is considered by others—a democratic organization, and in a democratic organization, unless things have changed lately, the majority are supposed to rule

The majority of the states in this Union are for that which we stand for, and if we are going to appease the seventeen states of the South and the District of Columbia, I think we would be deserving of a worse press than if we showed the courage of our convictions of our community that that is the way we feel

The mere fact that it has been turned down a few times, I am reminded that a certain group of people in this world have been turned down for two thousand years, but that did not stop them. Now I don't think there are two thousand years left to solve the problem of this world, not only of this State, as to the relationship between the races. Those who would stand up today and say, "Well, we might get a poor press if we pass what we want to pass," they are doing not only a great injury to their members whom they are representing but they are doing a great injury I believe, as Dr Murray much better put it, to the United States I am sure Dr Bauer, if he were to say something, would agree that the world is looking to the United States for leadership, and as a leader you must stand up and be counted You don't do that by using weasel words By passing this substitute motion you are only appeasing and using weasel words Let us pass the original resolution and go ahead from there

Speaker Andresen In order to get down to the original resolution, we will have to get two substitute motions and an amendment out of the way first.

Dr. Rooney A point of order, I have listened to this supposed discussion upon a second substitute motion There has been no discussion that has been germane in my opinion to the substitute motion. There has been no statement as to why the substitute motion should or should not be carried. We have gone all over the lot of the original resolution, and I raise that point of order

Dr. Alfred Angrist, *Queens* May I speak?

Speaker Andresen Will you speak on the substitute motion only?

Dr. Angrist May I be recognized, sir?

Speaker Andresen Yes This has to do with Dr Rawls' substitute motion, and has nothing to do with the original motion at all, is that right?

Dr. Angrist If I may speak, sir, forgive me for keeping Pelion upon Ossa, but I still have another substitute motion, and I think that is in order, sir?

Speaker Andresen Yes

Dr. Angrist I move the original motion plus the following amendment as the substitute motion And further be it resolved that provision for direct representation of such physicians as are not allowed admission to the local county medical societies in their local communities be provided for in such instances by the necessary changes in the Bylaws of the American Medical Association

This is in the form of a substitute motion to end all substitute motions

Speaker Andresen As I understand it, this motion substitutes for the original?

Dr. Weintrob This motion substitutes for anything that has gone on since then, including the recommendations of the Committee

Dr. Winslow We have with us an executive of the Board of Trustees of the American Medical Association, Dr Louis H Bauer I would ask that you please have him speak on this

Dr Bauer I may say that this whole proposition has caused considerable concern to the Board of Trustees of the American Medical Association, and they are very anxious to see something worked out that would solve it

For your information I may say that some of the Southern doctors who are most outstanding are also concerned about it, and they are endeavoring to work out some method by which the Southern states who now do not admit Negro physicians to the county

medical societies will admit them so they may be protected in their relationship to the American Medical Association

As has been said here before, on two or three occasions a resolution of this sort has been introduced, and the reference committee has reported each time that it was contrary to the Constitution and Bylaws of the American Medical Association The previous resolutions, as I recall, suggested no amendment to the Constitution and Bylaws of the American Medical Association There has been such a suggestion now

The proposition of Dr Rawls is not so weasley-worded as it was accused of being, because I believe that a committee of physicians of the American Medical Association, including certain Southern physicians, might work out a solution which would be satisfactory to everybody and give these men the recognition to which they are entitled It is a local proposition, only every one I know, all of the officials of the American Medical Association, want to see this thing solved, and they want to see it solved in the right manner They are anxious to see the Negro physician in the South receive the same recognition which he has here in New York, and I think that Dr Murray would second what I say when I say that there certainly has been no discrimination in the State of New York against Negroes or any other race, and we would like to see that condition exist throughout the United States

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I am not so sure but what Dr Rawls' suggestion may be the quickest way of getting a solution. It is not dodging the issue It is trying to find a solution which will give the results in the quickest fashion. In any event no action can be taken by the American Medical Association for another year because an amendment to the Constitution has to lie over for a year just as it does in this Society, and if a proposition is brought in to propose such necessary amendments as may be required and in the meantime a study committee is appointed who can work out a satisfactory solution, I am not sure but that will be the quickest way of really getting results—and results are what we want It is not a question of the form of the motion or anything else, it is what will get results

SPEAKER ANDRESEN Is there any further discussion?

DR. THOMAS O GAMBLE, *Albany* Mr Speaker and members of the House, I was born and raised in Alabama. What I am going to say may not sit well with this group, but I think it probably will.

I have felt ever since I moved to New York State that the Southern Negro doctor should be recognized as a member of the medical profession. When I went South two years ago I talked to three different county societies on this very proposition I was told that they were willing to sit down and talk this thing over and work out a proper solution, but if the North tried to force them into any action that they would set back the wheels of progress fifty years.

I believe that a conference such as has been suggested is the solution of this thing, and I believe that it can be worked out. There are enough good decent white people in the South that will recognize the Negro as a member of the medical profession

SPEAKER ANDRESEN Is there any further discussion?

You have now before you the substitute motion which substitutes itself for the original motion. Dr Angrist's substitute motion includes the original resolution plus the recommendation to bring up a constitutional amendment for consideration by the American Medical Association Do you understand what the motion is now?

DR. ROONEY No

SPEAKER ANDRESEN Does everybody understand what the motion is about?

CHORUS No

SPEAKER ANDRESEN The original Angrist motion has been substituted for all of the other substitutes which we have pertaining to the original recommendation of the Committee, which disapproved the resolution—

DR. EGGSTON We approved it in principle

SPEAKER ANDRESEN And added to that has been the recommendation to propose an amendment to the Constitution and Bylaws of the American Medical Association covering this matter, is that right?

DR. ANGRIST That is correct

There were calls for the question

DR. MASTERSON I think that will take too long to solve the problem, Mr Speaker, asking the American Medical Association to change their Bylaws I don't think it can solve the problem by changing their Bylaws It will only delay the solution of this problem, as the last speaker has said.

SPEAKER ANDRESEN Possibly this might be one way of accomplishing what we want because it would call for a conference in regard to the changing of the Constitution and Bylaws, in any event

There were calls for the question

SPEAKER ANDRESEN The question has been called. All in favor of this substitute motion say "Aye", contrary, "No" The substitute motion is lost

CHORUS Standing vote

SPEAKER ANDRESEN I think we will have to call for a standing vote I am sorry to delay proceedings, but over here it sounded louder to the people than it did to those on the other side

DR. FREEDMAN What are we voting on now? Dr Angrist's substitute motion?

SPEAKER ANDRESEN Yes, which is what I just described All in favor of that motion, rise—

DR. ROONEY I don't think the House understands exactly what we are voting on

SPEAKER ANDRESEN They just said they did.

CHORUS No

DR. ROONEY There certainly seems to be some confusion as to exactly what we are voting on now

SPEAKER ANDRESEN I will say it again for the third time We are voting now on a substitute motion made by Dr Angrist, which embodied the original motion plus an amendment to propose the necessary amendment to the Constitution and Bylaws of the American Medical Association covering this matter

DR. WINSLOW Could we have that original Angrist substitute motion restated by him?

DR. ROONEY Yes, and then we will know what we are voting on It could be read by the stenographer

SPEAKER ANDRESEN It is to the effect that the delegates of this Society should propose to the House of Delegates of the American Medical Association the immediate attempt to change the Bylaws

and the Constitution of the American Medical Association in order that discrimination which exists in certain states should be immediately rectified Is that the purport of that substitute motion?

DR ANGRIST No, it is not

SPEAKER ANDRESEN Then will you read the resolution in regard to that?

DR ANGRIST This is the substitute motion It is the original motion plus this additional resolved—And further be it resolved that provision for direct representation of such physicians as are not allowed admission to the local county medical societies in their local communities be provided for in such instances by the necessary changes in the By-laws of the American Medical Association

I have not even discussed this matter, so if I may presume upon your time to this extent That would call for a conference and implement the solution of this problem to the satisfaction of all parties I think that would correspond to an immediate solution of this problem

DR EGGSTON Your substitute motion incorporates the recommendation of the Reference Committee, plus this additional "resolved?"

DR. ANGRIST Yes

SPEAKER ANDRESEN It is not the original Cudmore resolution?

DR. ANGRIST No

SPEAKER ANDRESEN The original Cudmore resolution was disapproved by the Reference Committee, and as that is part of the substitute motion that is being substituted for all of the other substitute motions that we have had, plus the provision about seeking a constitutional amendment—

DR EGGSTON We did not disapprove of that resolution, we heartily approved of it in principle

SPEAKER ANDRESEN Does everybody understand that now?

CHORUS No

DR EGGSTON We approved of the resolution in principle but did not think this was the opportune time to present it to the House of Delegates, and that additional resolved takes care of it

SPEAKER ANDRESEN Yes

DR D'ANGELO May I ask a question?

SPEAKER ANDRESEN Yes

DR. D'ANGELO I would like to know what resolution or substitute motion Dr Bauer was saying he would think would be the best way out

CHORUS Dr Rawls'

CHORUS Out of order

SPEAKER ANDRESEN Are you ready for the question? The question is on the substitute motion proposed by Dr Angrist, which he has stated and restated All in favor say "Aye", contrary, "No" The substitute motion is lost

Now we come to the next substitute motion, which is the one by Dr Rawls

DR. ROONEY I made the first substitute motion, and I will withdraw that substitute motion and join with Dr Rawls in his

SPEAKER ANDRESEN Dr Rawls' substitute motion is now before us

CHORUS What is it?

SPEAKER ANDRESEN Will you state it, Dr Rawls?

DR. RAWLS The substitute motion that I offered was that we approve of the original resolution in principle and memorialize the A.M A to appoint a special committee to study this problem and offer a solution

SPEAKER ANDRESEN Does everybody understand that? Are you ready for the question?

There were calls for the question

DR. RAWLS Dr Rooney suggested that since he had withdrawn his substitute motion in favor of mine that the committee should be one that we memorialize the A M A. to appoint, that we memorialize the A M A to appoint a study committee, to make an endeavor to arrive at an immediate solution of this problem Is that right?

DR ROONEY That is right

SPEAKER ANDRESEN Do you understand the question? Are you ready for the question?

There were calls for the question, and the motion was put to a vote, and was carried.

SPEAKER ANDRESEN That substitute of Dr Rawls' is carried, and is a substitute for all previous motions including the recommendation of the Reference Committee

DR. EGGSTON He said he approved of it in principle

DR. ROONEY The substitute motion is a substitute for yours as well

Section 155 (*See 40*)

Report of Reference Committee on Miscellaneous Business (A) Suggestion for a More Representative Group of Delegates to the American Medical Association

DR. ANDREW A EGGSTON, *Westchester* The next resolution was introduced by Dr George A. Burgin, of Herkimer, "Suggestion for a More Representative Group of Delegates to the American Medical Association," and it was adopted at a meeting of the Medical Society of the County of Herkimer on April 12, 1949

(*Resolution given in full—Section 40*)

The officers and delegates of the Medical Society of the State of New York are nominated and elected from the floor of the House of Delegates for a definite tenure of office No one is elected for life All American Medical Association delegates must stand for election every two years Thus it is evident that ours is truly a democratic organization In no way is a member interfered with if he wishes to nominate anyone from the floor of this assembly, in fact, the ardent and persistent effort of all in the interest of competent representation is not only welcomed but greatly to be desired.

Your Reference Committee disapproves of this resolution I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 156 (*See 28*)

Report of Reference Committee on Miscellaneous Business (A) American Medical Association Assessment—Suggestion for Use of Funds

DR. ANDREW A EGGSTON, *Westchester* There are three resolutions more to be reported on, so I will try to be brief

On the resolution introduced by Dr Norman S Moore, of Tompkins

(*Resolution given in full—Section 28*)

Your Reference Committee feels this resolution unnecessary because these subjects have already been considered by the trustees of the American Medical Association, the Coordinating Committee, as well as the Committee of 53, with the decision that these funds be used for a national educational campaign

Your Reference Committee disapproves of this resolution, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 157 (*See 39*)

Report of Reference Committee on Miscellaneous Business (A) Opposition to Senate Resolution 5 (S 1679) on National Health Insurance and Request for Such Action by the American Medical Association

DR. ANDREW A EGGSTON, *Westchester* Resolution introduced by Dr James Greenough, of Otsego County

(*Resolution given in full—Section 39*)

Inasmuch as many of these conferences have been held under the auspices of the Council of Medical Service and other agencies of the American Medical Association and have been devotedly attended by our esteemed and astute American Medical Association delegate, Dr McGoldrick, there is no apparent necessity for this resolution at this time Your Reference Committee recommends disapproval of this resolution, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote and was unanimously carried

Section 158 (*See 60*)

Report of Reference Committee on Miscellaneous Business (A) Compulsory Health Insurance

DR. ANDREW A EGGSTON, *Westchester* Resolution from Orange County

(*Resolution given in full—Section 60*)

Your Reference Committee, because of the many conferences which have been held and numerous and broader conferences scheduled, disapproves of this resolution.

I move the adoption of this recommendation of the Reference Committee

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 159 (*See 104*)

Report of Reference Committee on Miscellaneous Business (A) Bond Issue for the Building of Hospitals in New York City

DR. ANDREW A EGGSTON, *Westchester* Finally, and this was the last straw, a resolution introduced by Dr William B Rawls, of New York.

(*Resolution given in full—Section 104*)

I understand this has passed the Legislature and has probably already been signed by the Governor

Your Reference Committee recognizes the need for adequate municipal hospital facilities in the City of New York for the care of medical indigents

Necessary legal steps should be taken where the need for such additional or improved municipal hospital facilities has been demonstrated. The planning of the proper type of hospitals should take into consideration the difference in costs between hospitals for acute cases and those providing care and treatment of chronic diseases

Your Reference Committee feels that it is not qualified to pass an opinion upon the legal ways and means of accomplishing the purposes of this resolution. However, it approves of the resolution in principle.

I hope you all understand the resolution as originally presented. I will not take the time to explain it to you.

I move the adoption of the recommendation.

The motion was seconded

SPEAKER ANDRESEN Is there any discussion?

DR. WILLIAM B RAWLS, *New York* May I say one word? I will make it short This resolution was handed to me yesterday morning about twelve o'clock or something like that, and it was presented by the executive secretary, I believe it is, of the State Charities Aid Association The whole idea of this is to be able to increase the debt limit of New York City in order that they might carry out their proposed building program for municipal hospitals Lord knows we need it in New York City, as everybody coming to New York City will tell you I don't know anything more about this legal terminology than Dr Eggston does This was handed to me as having been passed by the Legislature, as having been signed by the Governor, and that it was going to be voted on at a referendum this fall, and they would like the support of the medical profession in trying to put this referendum over so we can have some money to build some hospitals in New York City

DR. LEO F SCHIFF, *Clinton* Since the making of substitute motions has now become a fad, I am going to propose one We don't understand this thing It would take us quite a while to have it elucidated, so why even approve of such a thing in principle? I won't say I am against it, but I simply don't understand it, so the only sensible course for us to follow is to admit that we do not understand it Therefore, I move as a substitute motion that we take no action.

DR. EGGSTON The American Medical Association has gone out in all of its resolutions after every state society, "We need more hospitals We need more hospital facilities," so I don t think we can pass up this resolution and not approve of the fact that we should have more hospitals In discussing that particular amendment or substitute, I think we have to take that into consideration from a publicity standpoint

DR. SCHIFF O K., if I may be permitted to withdraw that substitute, let us expand it and say that while we approve of the building of hospitals where necessary and where feasible, various financial arrangements, such as extension of the debt limit, should be made where required and possible This is not in the position, this is parenthetical still. Because we cannot understand this particular motion on $150,000,000, and so on, we can take no action, so the thing in effect is this, that we are in sympathy with the motion, with actions to build more hospitals, but we cannot sensibly take any action on this particular motion which is in reference to a very specific expenditure of money

SPEAKER ANDRESEN The Chair feels that this is really not a substitute It actually puts the same recommendation that the Reference Committee has made perhaps in not quite as good a form.

DR. SCHIFF I beg your pardon I beg to differ The recommendation that I heard read from this platform was that we approve of it in principle

SPEAKER ANDRESEN That was the last clause

DR. SCHIFF Which meant we approved something costing about $150,000,000, which none of us understood

SPEAKER ANDRESEN That was explained in the resolution Will you read that again?

CHORUS No

DR. EDWARD P FLOOD, *Bronx* I am a member of the Reference Committee This is really a very simple proposal, and—

SPEAKER ANDRESEN Did somebody second that substitute motion by Dr Schiff?

The motion was seconded by several

DR. FLOOD This is a very simple matter The debt limit of New York City is limited by the Constitution Last year the Mayor asked for a ten cent fare so he could build more hospitals, but Mike Quill came along and got all of the profits out of the ten-cent fare We need the hospitals We need tuberculosis sanatoriums We need 700 beds in the Bronx alone The only way the money can be secured is by the floating of a bond issue that will be paid for by the subsequent generations that use the hospital The Constitution prevents New York City from issuing bonds above a certain ceiling

An amendment to the Constitution of the State of New York was proposed and passed by the Legislature, and will be signed by the Governor and will be submitted to the electorate of New York State next November The *State Charities Aid Association* asked the Medical Society of the State of New York to support the ratification of this amendment by the electorate We know the need of these things Now our Reference Committee elaborates upon and instills some of our ideas that we think some of the money should be spent for, facilities for the custodial care of the chronically invalid and for the rehabilitation of the crippled and otherwise disabled medical indigents of New York City Therefore, if you approve the report of the Reference Committee, it is a very simple thing They can then say that the Medical Society of the State of New York approves of the bond issue, and approves the purpose behind the question

DR. JAMES F ROONEY, *Trustee* Very briefly, it seems to me there is no emergency This matter will not be voted upon until the fall Nobody seems to know anything about it Dr Flood has very ably explained it I knew nothing about it before I did know that the question of raising the debt limit was a State affair It seems to me we will be acting judiciously, as we have in the past, if this motion be referred to the Council After study, the Council can take the necessary active steps In the interim between the meetings of the House of Delegates, the Council is the House of Delegates, and they can approve it after they have gone over all of the implications of this bill I, therefore, move that this be referred to the Council for its prompt action

The motion was seconded, and as there was no discussion, it was put to a vote, and was lost

SPEAKER ANDRESEN The motion to refer is lost

We now come to the original motion of the Reference Committee Is there any further discussion on that original motion?

The question was called, and the motion was put to a vote, and was carried

DR. EGGSTON Mr Speaker, I move that we adopt the Reference Committee's report as a whole, as amended

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Eggston

DR. EGGSTON There is one other thing that I must do, and that is to thank the fellows on my committee who worked so hard, Dr Morris Weintrob, Dr Edward P Flood, and Dr Orin O Flint, as well as Dr J C Zillhard, who substituted for Dr Vogel

I also thank you, Mr Chairman, for your earnest consideration

Section 160 (*See 48, 153, 162*)

Reconsideration of Recommendation of Reference Committee on Miscellaneous Business (A) Approval of Principles of the Association of American Physicians and Surgeons

DR. ROONEY I will move immediately, Mr Speaker, that the Speaker in conjunction with the Secretary be given the permission of the House to make the necessary deletions in the record.

DR. FREDERICK S WETHERELL, *Onondaga*. Seconded.

SPEAKER ANDRESEN Very well. Are you ready for the motion on the deletion?

The question was called, and the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The deletion is ordered.

We have another committee report, and I think we ought to get through with that tonight That is the report of the Reference Committee on the Report of the Planning Committee, of which Dr D'Angelo is the chairman

Section 161 (*See 52, 107*)

Reconsideration of Action Taken on Report of Reference Committee on Report of Council IX To Amend the Education Law in Relation to the Practice of Psychiatry

DR. JAMES R REULING, *Treasurer* Might I rise to a question of privilege before you hear this Reference Committee report?

SPEAKER ANDRESEN Yes

DR. REULING I would ask the privilege to speak on a resolution that has been passed by this House. I believe the House was not fully aware of the significance of the action It has to do with a resolution introduced by Dr Irving J Sands of Kings, to amend the Education Law in relation to the practice of psychiatry I want to move a reconsideration. Would you like me to read further before I make the motion?

SPEAKER ANDRESEN I suppose it will be worth while to know why you want to do it

DR. REULING It reads

"WHEREAS, the Medical Practice Act does not specifically include mental and nervous diseases as diseases within the meaning of the law, and

"WHEREAS, Paragraph 4, Section 6501, of the Education Law, states

'The practice of medicine is defined as follows A person practices medicine within the meaning of this Article, except as hereinafter stated, who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition, and who shall either offer or undertake, by any means or method, to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity, or physical condition' "

that is the Medical Practice Act, and then it goes ahead

"*Therefore be it Resolved* that the Council of the Medical Society of the State of New York be instructed to take whatever measures are necessary to insure the amendment of the Education Law to prohibit specifically psychologists and/or psychiatric workers from practicing medicine, and be it further

"*Resolved*, that the Medical Practice Act be amended to include mental and nervous diseases, and be it further

"*Resolved*, that the Medical Society of the State of New York actively work for the passage of this legislation "

This House of Delegates has in years past repeat-

dly resisted all attempts to open up the Medical ractice Act to redefine the practice of medicine be- ause of fear of opening that door to some of the ults Therefore, Mr Chairman, in order to bring us before the House I am going to make a motion reconsider at a time convenient to the Chairman.

SPEAKER ANDRESEN You voted for the motion us morning?

DR. REULING I voted for the motion I move reconsider

DR. JAMES F ROONEY, *Trustee* I second the otion.

There being no discussion, the motion was put a vote, and was carried

SPEAKER ANDRESEN The motion to reconsider it s been carried. Now what is your pleasure? you want to make another motion now?

DR. ROONEY I will make this motion, that the ouse disapprove of this recommendation That is motion that we disapprove of the recommenda- n to open up the Medical Practice Act again as s proposes to direct the Council and the Legisla- e Committee to do If we do that, gentlemen, it is e opening Pandora's box because the moment we ke a movement to open the Medical Practice Act naturopath, the chiropractor, and every other ich will be in there with proposals to amend the inition of the practice of medicine, which is owledgably the most legally accurate that exists any state of the Union I hope you will vote to approve the original recommendation and wipe thing off the map

The motion was seconded by several

DR. SOLOMON SCHUSSHEIM, *Kings* Being a fit ject for psychiatric study and treatment, I feel t perhaps I may have company tonight This ning when this resolution was presented we all idered it very favorably Perhaps through the 's and evening's entertainment we have suddenly id that Pandora is opening a box If we are to /-dally, as has been said before, about what we ly believe and think, we will never get anywhere us not continue to think that way and be in fear someone else may step in. If we can control our movements when we step in, we can certainly others out

R. ROONEY I rise to a point of order Due to lateness of the hour and the lot of business we have before us, unless we are going to work all tomorrow and make a lot of mistakes as we do in e morning meetings on the day of election, I am g to make this motion that the House vote to debate upon any of these subjects to one ute for each speaker

The motion was seconded by several

R. SAMUEL Z FREEDMAN, *New York* Can we e that retroactive?

EAKER ANDRESEN The Chair will rule that cannot be made retroactive This motion re- s a two-thirds vote

The question was called, and the motion was o a vote, and was carried

EAKER ANDRESEN One minute for each dis- on for the rest of the evening

R. CHARLES GULLO, *Livingston* This is a good on by Dr Rooney We have heard from Dr ley on this subject many times as well as other voicing this expression of fear about reopening Medical Practice Act We are afraid of fear Medical Practice Act was tampered with in and again in 1946, and it was not started by House, when the osteopaths were licensed. igh we may not have started it, it was a change e Medical Practice Act when these people were given additional rights We may not start it, but other people do

DR. AARON KOTTLER, *Kings* Mr Speaker and delegates, this resolution was introduced upon the suggestion of Dr Samuel Harper, who is the director of psychiatry for the City of New York. He introduced this resolution at the Kings County Medical Society, after reading an editorial in the *Woman's Home Companion* written by Dr Morris Fishbein He disagrees with Dr Fishbein as to psychologists and psychiatric workers treating people who have mental or nervous disorders, and it was upon his suggestion that this was introduced. I believe he is an authority on the subject, and that we should follow the wisdom of the authorities on these subjects

SPEAKER ANDRESEN Your minute is up I cannot allow you any more time The House has ordered me not to allow more

DR. FREEDMAN On a motion to refer, I move this be referred to the Council.

SPEAKER ANDRESEN There is a motion to refer the motion which has been approved by the Reference Committee to the Council. Is there a second to that?

The motion was seconded by several

SPEAKER ANDRESEN Is there any discussion?

DR SCHUSSHEIM Do we wish to disavow our vote of this morning and refer it to the Council? What is the trouble around here?

SPEAKER ANDRESEN That is the motion

DR MORRIS WEINTROB, *Kings* Point of information, Mr Chairman, is it parliamentary by a motion of this sort to refer, to invalidate a two-thirds vote to reconsider immediately?

SPEAKER ANDRESEN The motion to reconsider was adopted by a two-thirds vote The motion is now before us to reconsider We want to do anything we want with it Am I right?

DR. ROONEY The motion to reconsider was passed by the House, then I made a motion that this thing be disapproved, that we consider the action that the House took in approving the recommendation of the Reference Committee, and that we disapprove of their recommendation which approved this resolution It is immaterial to me, I am perfectly satisfied to dispose of this matter by referring it to the Council, and I will withdraw my motion and I will second the motion to refer to the Council.

SPEAKER ANDRESEN Is there any further discussion?

DR. IRVING J SANDS, *Kings* There is nothing to refer at the present time The practice of nervous and mental diseases is not recognized by law The resolution recommends it be so recognized. There is absolutely nothing in the resolution that should make you have any doubt of its validity Please don't send it back again to the Council. You have passed it That was a step in the right direction. Let us take it back.

The motion was put to a vote, and was declared carried, after a viva voce vote was in doubt, by a standing vote 46 in favor and 22 against

Section 162 (*See 160*)

Report of Secretary on Deletions Ordered

SECRETARY ANDERTON The Secretary reports he has made the deletions as ordered by the House

Section 163 (*See 22, 44, 47, 78*)

Report of Reference Committee on Report of Planning Committee for Medical Policies

DR. THOMAS M D'ANGELO, *Queens* Mr Speaker

and members of the House, this report will necessarily be a lengthy one, with the number of resolutions that were given to our Committee, but I assure you that I have cut this down to the bone, and with all of the resolutions that were presented to us we have made just two out of them

Your Reference Committee has had a considerable amount of work referred to it at this session Besides the annual report of the Planning Committee a considerable number of resolutions having to do with the work of the Planning Committee have been referred to this Reference Committee

The members of the Medical Society of this State are very often dissatisfied that their problems are not quickly solved. Here is a Planning Committee that has been diligently working for three years, yet many of the problems that were studied at the beginning have not been solved, and their study is still continuing This year their report deals mainly with three phases

(1) Reorganization of District Branches,
(2) Medical services in hospital contracts, and
(3) Group Practice

Mr Speaker, I was absent from the House this morning when the matter of district branch reorganization was voted on May I know officially just what action was taken?

SPEAKER ANDRESEN The metropolitan county societies were made into District 1, the five counties That was adopted Joining Nassau, with Westchester, Suffolk, Rockland, Orange, Dutchess, and Putnam into the Second District Branch, was deferred.

DR. D'ANGELO It is going to be very difficult for me to rephrase this report to conform with the action of the House this morning I shall do my best I then shall take up only those district branches which have not been reorganized this morning

The action taken by the House this morning was at variance with the report of this Committee, and I had hoped that both reports would have been taken up at the same time However, since the action you took this morning is final in that respect, the only thing that your Reference Committee can do now is to rephrase this If any of my members on the Reference Committee are present here, and they do not approve of what I am about to say, I wish they would get up and object

Since the First District Branch now consists of the five counties of New York City, then the Committee will recommend—and this was a second choice by the way—that the Counties of Nassau and Suffolk be joined in another district branch with Westchester, Rockland, Putnam, Dutchess, and Orange

CHORUS What about Ulster?

DR. HARRY GOLEMBE, *Sullivan* Ulster is in the Third District

SPEAKER ANDRESEN Do you so move?

DR. D'ANGELO I am trying to make this to conform with the action that was taken this morning As I say, it is not the action of this Committee as I was about to report it, but since a particular action has already been taken by this Society I have to alter my report at present

SPEAKER ANDRESEN How about your Committee?

DR. D'ANGELO They approve it I asked any of them that disapproved it to speak up

SPEAKER ANDRESEN Did you ask your Committee if they approve it?

DR. D'ANGELO If any of my Committee members are here and disapprove, I hope they will speak up I left out Sullivan and Ulster in the district branch we had planned, but since Suffolk and Nassau are being added to that district branch I thought it best to leave the Third District Branch as is and let it be reorganized, if necessary, at another time. I move the adoption of that portion of the report.

The motion was seconded

SPEAKER ANDRESEN Is there any discussion?

There was no response

SPEAKER ANDRESEN Dr Monteith, do you want to discuss that?

DR. STEPHEN R MONTEITH, *Rockland.* No

DR. SCOTT LORD SMITH, *Dutchess* I would like to discuss it as the immediate past president of the First District Branch. I would be quite satisfied with the action taken between the two committees. I think it is quite possible that ultimately the three semimetropolitan counties may wish to go by themselves I would be heartily in favor of taking the action, which was an imperative action in view of the general differences between the metropolitan and rural counties

SPEAKER ANDRESEN This involves more than just a motion This is really a constitutional amendment It was presented as an amendment this morning to a constitutional amendment which was proposed a year ago, and which it was legally possible to consider today The action on that amendment was postponed until we heard from Dr D'Angelo's Committee, so this is more than just a motion. It is a constitutional amendment I might add parenthetically in view of the fact that we are going to have a revision of the Constitution and Bylaws anyway during the next year to be acted upon next year this will again be merely a stopgap until the whole question of reorganization may come up during the year

The question was called

SPEAKER ANDRESEN We will consider this then in lieu of the amendment that was made this morning

DR. D'ANGELO That implements the actions of this Society to conform with the Constitution and Bylaws, and I think Dr Di Natale will so report

SPEAKER ANDRESEN If this motion of Dr D'Angelo's Committee is approved, it will be referred to Dr Di Natale's Committee, which will report immediately thereafter

DR. D'ANGELO That is right

The motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN The motion is adopted and this recommendation is now referred to Dr Di Natale's Committee

DR. D'ANGELO Your Committee is of the opinion that unless some definite constructive work can be done by district branches they had better be entirely abolished. We also think that if they are organized on geographic, economic, and political lines they can accomplish good constructive work.

Furthermore, your Committee is of the opinion that several district branches may arrange to employ an executive secretary, full- or part-time, to coordinate the various activities, public relations, legislative, workmen's compensation, etc , and we further recommend that the expenses of such executive officers be entirely provided for by the various county societies making up the district

I move the adoption of this portion of the report

DR. JAMES F ROONEY, *Trustee* I second that motion

DR. STEPHEN R MONTEITH, *Rockland* May I discuss that a moment?

SPEAKER ANDRESEN Yes

DR. MONTEITH Yesterday morning I introduced

a resolution into this House carrying instructions from this House of Delegates to the Council to employ executive secretaries for each district branch I don't know what has happened to that resolution as I believed it was referred to Dr D'Angelo's committee

SPEAKER ANDRESEN Apparently, it is coming up

DR. MONTEITH It is in the same connection It seems to me that for the really effective work which we need immediately we cannot afford to wait for the time that it will take each one of these districts to formulate and to carry into effect the means whereby they can employ secretaries or anybody else The district branches now have no dues They are entirely dependent on the bounty of the State Society or the meager operation which they now have I, personally, cannot see any objection to the State Society setting up an executive officer in each district branch, that executive officer being a direct employe of the State Society, responsible to the Council for his actions in every way I do not believe it feasible within any speedy length of time for any district branch outside of some district branch which has a large county society with an already employed executive secretary to carry out this idea I hope that the recommendations of this Reference Committee will not be approved, and that my resolution will prevail

DR. ROONEY It has been estimated by the Board of Trustees, in relation to this resolution of Dr Monteith's, that it would cost the State Society approximately nearly $100,000 to establish and pay an executive officer, a competent executive officer, in each of the eight district branches Gentlemen, we are almost beyond our budget now If we have to publish another *Directory* at a cost of approximately averaging $44,000 a year we will be debiting ourselves over one hundred and some odd thousand dollars above our present dues income If you want to adopt this plan of Dr Monteith's you will without any question have to put in another resolution to raise your dues in the sum of something between $5 and $8 additional per year for your State dues You can consider what you want to do about it

DR. ROBERT C PEALE, *District Delegate* Mr Speaker and members, as president of the Eighth District Branch I would like to say that a few years ago we realized that something like this had to be done We also realized that we had no money with which to do it Every chiropractor in this State pays three to four or five times what we pay We have carried on this plan, and it has worked successfully It has been of the greatest help to all of the county societies The officers and everyone who attends the meetings pay their own expenses, and I don't see any reason to argue about a few dollars

SPEAKER ANDRESEN We have been getting over in the discussion to considering another motion than the one that was made by the Reference Committee Isn't that right? The next resolution will take care of it I believe

DR. D'ANGELO May I say that action on this resolution will automatically carry action on Dr Monteith's resolution because if we adopt this resolution we have each corresponding society of the district branches pay for it.

DR. FREDERICK W WILLIAMS, *Bronx* I would like to know if the Reference Committee's recommendation makes it mandatory for the district to have an executive officer

DR. D'ANGELO No

DR. WILLIAMS I would like to know if one of the districts does decide to hire an executive officer from the counties to be supported from the counties within the district, is he then responsible to the Council of the State Society?

DR. D'ANGELO No

DR. THOMAS P MCCARTHY, *Bronx* Will you read that again?

DR. D'ANGELO "That several district branches may arrange to employ an executive secretary, full- or part-time, to coordinate the various activities, public relations, legislative, workmen's compensation, etc , and that we further recommend that the expenses of such executive officers be entirely provided for by the various county societies making up the district" That is taken verbatim from the report of Dr Kenney's Planning Committee

DR. WILLIAMS I didn't hear that word "may"

DR. D'ANGELO I have added it

DR. HOMER J KNICKERBOCKER, *Ontario* Mr Anderson has already added five new men. Cannot we add them in the various regions until such time as the districts can develop a man and pay for him.

The question was called, and the motion was put to a vote, and was carried

DR. D'ANGELO Therefore no action on Dr Monteith's resolution is necessary

Section 164 (*See 20, 21, 25, 56, 57, 66*)

Report of Reference Committee on Report of Planning Committee for Medical Policies Medical Services in Hospitals and Blue Cross Contracts

DR THOMAS M D'ANGELO, *Queens* Medical Services in Hospitals and Blue Cross Contracts More and more the hospitals are entering the practice of medicine First the pathologists, radiologists, anesthesiologists, and the physiotherapists were involved. Now many hospitals are selling the service of surgeons and other specialists The trend is increasing The Planning Committee has studied this very carefully, and we would like to call to your attention the preliminary report of the A M A committee, of which Dr Hess is chairman We cannot look to the A.M A. for a nation-wide solution to this problem. It must be solved on a state level The Planning Committee has given most of its attention to the problem of the pathologist, radiologist, anesthesiologist, and the physiotherapist, and the solution that has been prepared deals mostly with these specialties We believe that all the doctors are now involved, and that we must tackle this problem in a different manner

Certain medical services have been offered to the public by our hospitals It would be difficult for the hospitals to remove these services at the present time, because the public has been educated to receive these services The Blue Cross has accepted these services in its contracts to the hospital and the public Blue Shield contracts are not paying for these services because they are, at present, being paid by the Blue Cross In some areas of this State, however, Blue Shield is ready to pay for such services, and we believe that the public would not, in any way, be deprived of any medical care if such medical services were transferred from Blue Cross to Blue Shield. The Reference Committee, therefore, recommends that the Medical Society of the State of New York hereby goes on record as again approving, in principle, that the rendering of medical services must remain in the hands of qualified physicians practicing individually or in groups It also recommends that where Blue Shield plans are in operation that Blue Cross plans discontinue offering medical services in pathology, radiology, anesthesiology, and

physiotherapy, and that Blue Shield plans pay for these services The Reference Committee also recommends that all Blue Cross and Blue Shield plans in this State be notified of this action

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. D'ANGELO We have received a number of resolutions concerning this phase of the Planning Committee report Since they all agree in principle, the Reference Committee has combined them in one resolution, and offers the following substitute for the various resolutions introduced

"WHEREAS, the Medical Society of the State of New York is heartily in accord with all movements that will afford the adequate training of students of medicine, the prevention and treatment of disease, and the establishment of medical care on economic planes which will not result in the deterioration of the individual program of medicine or the lowering of the standard of medical care of the sick, and

"WHEREAS, there has been a tendency for certain hospitals and medical teaching institutions to open clinics for the practice of medicine for profit, therefore be it

"*Resolved*, that

"1 This Committee recommend to the House of Delegates that the resolution previously passed by the House of Delegates (NEW YORK STATE JOURNAL OF MEDICINE, September 1, 1948, Part II, page 18, paragraph 3, column 2) be called to the attention of hospitals and teaching institutions

"2 That a conference of deans of medical colleges and representatives of hospitals and teaching institutions be held to discuss and formulate a policy which is in the public interest

"3 That all hospitals and teaching institutions be requested to take no further action in this matter until such time as the above policy has been formulated.

"4 That the Council be instructed to sponsor and support the reintroduction of the Friedman Bill (*Senate Introductory 2402*) which was passed by the State Senate at the last session of the Legislature"

I move the approval of that portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 165 (*See 23*)

Report of the Reference Committee on Report of the Planning Committee for Medical Policies Group Practice

DR. THOMAS M D'ANGELO, *Queens* The Committee recommends that continued study of group practice be carried on. It also recommends that the Planning Committee approve a set of principles for group practice as soon as possible In the meantime the members of our Society can be guided by the result of the Planning Committee study so far

I move the adoption of this portion of the report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. D'ANGELO We recommend that this Committee be continued, and I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. D'ANGELO I wish to thank the members of that Committee for the hard work they put in all afternoon, and I move the adoption of the report as a whole

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 166 (*See 78, 163*)

Report of Reference Committee on Constitution and Bylaws Amendment to Article XI, Section 1, Paragraph 3

SPEAKER ANDRESEN We now have to take up the report by Dr Di Natale on the Reference Committee on Constitution and Bylaws

DR. PETER J DI NATALE, *Genesee* This morning you deferred until tonight this part of the amendment to the Constitution and Bylaws

Paragraph 3, Section 1, Article XI at present reads as follows

"The Second District Branch shall comprise the members of the medical societies of the counties of Kings, Queens, Nassau, and Suffolk."

This morning you voted to make the five metropolitan New York counties the First District Your Reference Committee moves that paragraph 3 of Section 1, Article XI read as follows

"The Second District Branch shall comprise the members of the medical societies of the counties of Westchester, Suffolk, Nassau, Rockland, Orange, Dutchess, and Putnam."

I move the adoption of this portion of the Reference Committee's Report on the Constitution and Bylaws

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 167

Report of Reference Committee on Report of Council Part IV Public Health Activities (B)

DR. A. H AARON, *Erie* Your Reference Committee on Report of Council, Part IV, recommends the approval of the following public health activities, Part B, as per the reports that are in your hands

(1) Report submitted on Cancer,
(2) Report submitted on Hard of Hearing and the Deaf,
(3) Report on the Subcommittee on Rheumatic Fever,
(4) Report on Mental Hygiene

I move the adoption of this portion of the report.

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 168 (*See 45*)

Report of Reference Committee on Report of Council Part IV Blood Banks

DR. A. H. AARON, *Erie* At the annual meeting of the House of Delegates of the Medical Society of the State of New York, in May, 1948, the following resolution was approved

"WHEREAS, the National Red Cross has undertaken the establishment of a nation-wide Blood Donor Service Program, the basic philosophy of which is to provide blood for all, and which pro-

vides in some areas not only for donor services but also for collecting, processing, and distributing blood from a centralized bank, and

"WHEREAS, free service for all economic levels of the population is not compatible with established patterns of American life, and

"WHEREAS, a centralized blood bank service under the Red Cross may tend to destroy existing blood banks in the hospitals, and

"WHEREAS, all professional and technical phases of a blood bank program should be under the control and supervision of the physicians of the community, and

"WHEREAS, a permissive program adapted to meet local needs has been approved in Westchester County in full cooperation with the Westchester Chapter of the American Red Cross, now therefore be it

"*Resolved*, that the New York State Medical Society urge county societies to consider the establishment of a Red Cross Blood Donor Service Program similar to that proposed for Westchester which provides

1 Red Cross Blood Donor Service

2 Free Red Cross blood for the medically indigent who are unable to provide replacement

3 The continuation of existing hospital blood banks and encouraging the establishment of banks in other hospitals.

4 Implementation and supplementation of the existing blood bank services

5 All professional and technical control and supervision of the donor service program vested in a committee of physicians appointed by the county medical society

6 And general coordination of the program through a committee representing the Red Cross, the county hospital association, and the county medical society."

Therefore, under that resolution a Subcommittee on Blood Banks was appointed by the president of the State Medical Society, consisting of Drs Lester J Unger, Eugene L Lozner, and Morris Maslon, who held frequent meetings in conjunction with the New York State Department of Health, representatives of the American Red Cross and other interested members of the Medical Society of the State of New York, who gave their report as published in the annual reports of the State Society for 1948 and 1949 Since the publication of this report it has been discovered that the Westchester Plan is not in operation and has not been in operation, due to the fact that the National American Red Cross would not endorse their plan

Since the resolution introduced by Nassau County dealing with the subject of blood banks is under consideration now, your Reference Committee has concentrated on the report as presented by Nassau County and we believe that a discussion of this report will obviate the necessity of acting on the report of the original Subcommittee on Blood Banks

The resolution that was referred to your Reference Committee, and that was adopted at a meeting of the Nassau County Medical Society, held on April 26, 1949 reads

(*Resolution given in full—Section 45*)

We approve the recommendation that the committee be continued or a new committee be appointed to work out the best plan for a sound blood bank program for the State of New York, developed jointly by the New York State Department of Health and the Medical Society of the State of New York and its constituent local bodies

We move the approval of the entire report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Thank you, Dr Aaron

DR. AARON We would like to thank the other members of the Reference Committee, also Dr Stillman, the president of the American Blood Bank Association, Dr Curphey, Dr Sobol, Dr Witherby, Dr Simpson, and Dr Masterson, who aided us in the formation of this report

SPEAKER ANDRESEN Dr Williams has now edited his report, and will continue reading it.

Section 169 (*See 7, 125, 172*)

Report of Reference Committee on Report of Secretary

DR. FREDERICK W WILLIAMS, *Bronx* On the advice of Counsel of the Society, I wish to say that I am here ready to report to the best of my knowledge, information, and belief (*Laughter*)

Part I, Report of the Secretary Your Committee wishes to report that the statistics on membership as published were the statistics as of January 1, 1949 The published number of 834 delinquent members for 1948 would give the impression that this delinquency produced a loss in membership from 21,303 for January 1, 1948, to 21,171 as of January 1, 1949 This is explained, however, as being due to a variation in fiscal policy between some of the county societies and the State Society By March, 1949, the delinquency number was reduced to 284, which would bring the total membership to 21,721 and by May 1, 1949, our total membership was 22,520 This is definitely the largest membership in the history of our Society This is truly sound, progressive growth Your Committee suggests, however, that the Secretary hereafter report the membership statistics more currently than as of the calendar year and that closer cooperation be established between the county and State offices so that the statistical report, as published, will more accurately reflect the status of our membership rolls

Your Committee wishes to call the attention of the delegates to the fact that eleven counties were reported as honor counties, having 100 per cent of their 1948 dues paid in 1948 This is commendable, and we suggest that more of the counties make an effort to attain this status

Your Committee wishes to call attention to the excellent work on the part of the Secretary in the reporting of the minutes of the Council as published through the year Also, we wish to make note of the fact that there was marked improvement in the timing of the publishing of the annual reports and the supplementary reports in preparation for this convention We again request all officers, committee chairmen, and district branch presidents to cooperate with the Secretary to make this even more efficient in the future Such cooperation will aid materially in the intelligent handling of the business of the convention

Your Committee is anxious to bring to the attention of every delegate and every member of this Society the conscientious, efficient, and humble manner in which your Secretary has carried out the multitudinous tasks of his office His published report touches but briefly some highlights of his efforts in our behalf this past year For this he should receive our sincere thanks and appreciation

I move the adoption of this portion of the Reference Committee's report on the Report of the Secretary by a rising vote.

The motion was seconded, and the delegates arose and applauded

Section 170

Report of Reference Committee on Report of the District Branches

DR. FREDERICK W WILLIAMS, *Bronx* Part II, Report of the District Branches A report of the attendance figures of all the district branches reveals that the real active value and worth of the district branches varies greatly in the different sections of the State Your Committee advises that effort be exerted to revitalize the less active district branches. This, your Committee feels, may well be attained in several ways

First In the downstate area of metropolitan New York City redistricting is an essential change which will be accomplished by adoption of resolutions to be reported by another committee Your Committee is of the opinion that districting should be done on a basis of common problems among the counties, not purely geographic location

Second In the district branches in general throughout the State, revitalizing may be attained by establishing a coordinating advisory committee as has been done in the Eighth District Your Committee recommends the present setup in the Eighth District to the attention of other districts for their consideration. We feel that district branch activity should be developed locally and adapted to local problems and interests We also wish to stress that district branch activity should not be developed to such an extent as to encroach upon county sovereignty District branches should not be permitted extended representation in the House of Delegates Your Committee recommends that district branches be given every encouragement to revitalize by a process of evolution, with room for local adaptation

I move the adoption of this part of the Reference Committee's report

The motion was seconded, and as there was no discussion, the motion was put to a vote, and was unanimously carried

Section 171

Report of Reference Committee on Censors

DR. FREDERICK W WILLIAMS, *Bronx* In regard to the Report of the Censors, we received no report, so I move the adoption of this report as a whole as properly edited

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR WILLIAMS I thank the members of my Reference Committee for their cooperation and assistance

Section 172 (*See 169*)

Acknowledgment of Rising Vote of Thanks by Secretary Anderton

SECRETARY WALTER P ANDERTON Your Secretary at the moment of your kind approbation was completely stricken dumb, but now the words—and probably too many—will be flowing forth. All I can say, from the bottom of my heart thank you, but what little I have been able to accomplish for the State Society has been entirely due to the work of others in the State Society, and I mean by that Miss Dougherty, Dr Frey, Mr Anderson, and the other many people that work in your office

Section 173 (*See 138*)

Supplementary Report of Reference Committee on Report of Council, Part X Revised Workmen's Compensation Fee Schedule

DR. A. WILBUR DURYEE, *New York* Mr Speaker, this is a supplementary report on the Report of the Council, Part X, Workmen's Compensation

Your Reference Committee has had referred to it the consideration of the motion of Dr Arthur Bedell regarding the fees of ophthalmologists as embodied in the supplementary report to the fee schedule of the Workmen's Compensation Board dated May 1, 1949

After consultation with Dr J Stanley Kenney, chairman of the Council Committee on Workmen's Compensation, and Dr David J Kaliski, director of the Workmen's Compensation Bureau, and your incoming president, Dr John J Masterson, and after reviewing the entire supplementary fee schedule, it is apparent that inequities in other specialties are also present.

Therefore, your Reference Committee recommends that the Council Committee on Workmen's Compensation of the Medical Society of the State of New York with such other well-informed members of the Medical Society of the State of New York whom the President may see fit to appoint, meet with the chairman of the Workmen's Compensation Board or with whomsoever she may desire to appoint, to urge the correction of these inequities as soon as possible and to advise and assist in the implementing of the recommendations made in the report of your Reference Committee and adopted by the House of Delegates in session on May 3, 1949

I move the adoption of this report

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. DURYEE I would like to thank the members of my committee who worked on the original report and also on this supplementary report, Dr Reginald A. Higgons, Dr Charles E Goodell, Dr Walter S Bennett, and Dr John H Garlock, and also for their assistance Dr J Stanley Kenney and Dr David J Kaliski.

SPEAKER ANDRESEN Thank you, Dr Duryee

Are there any further resolutions to be presented? This is the last opportunity to present any resolutions None can be made tomorrow

Section 174 (*See 182*)

Voluntary Medical Care Insurance Participation

DR. CHARLES GULLO, *Livingston* This is a resolution which will probably result in a lot of work for some men when they get back home

"WHEREAS, enrolment in the Voluntary Medical Care Plans approved by the Medical Society of the State of New York indicates public acceptance of this principle to provide for medical care costs, and

"WHEREAS, a program to accelerate enrolment is essential to provide protection to a greater number of people, and

"WHEREAS, the cooperation and participation of all doctors in the plans is necessary to accomplish this purpose, now therefore be it

"*Resolved*, by the House of Delegates of the Medical Society of the State of New York, that

1 The Medical Society of the State of New York extend to county medical societies through

its facilities the necessary assistance to increase doctor participation in the plans

2. That meetings be arranged through district branches to formulate a program to increase enrolment in local areas through the cooperation of county medical societies and the plans"

SPEAKER ANDRESEN I will refer that to the Reference Committee on Report of the Council, Part VII, Medical Care Insurance, of which Dr Guy S Philbrick, of Niagara, is the chairman

Section 175 (*See 195*)

Increased Annual Assessment

DR STEPHEN R MONTEITH, *Rockland* I should like to introduce a resolution pertaining to the annual per capita assessment

"*Be It Hereby Resolved* by this House of Delegates that the annual per capita assessment on each component county society for the ensuing fiscal year shall be $25"

SPEAKER ANDRESEN I can't refer it to Dr Monteith's own reference committee very well

DR JAMES R REULING, *Treasurer* On the question of the wording there, you say "assessment on each component county society" You mean "on each member" don't you?

DR MONTEITH It conforms to the wording of the Constitution

SPEAKER ANDRESEN I will refer that to the Reference Committee on Report of the Planning Committee for Medical Policies, of which Dr Thomas M D'Angelo, of Queens, is the chairman

Section 176

Vote of Thanks to Help of Society

DR JOSEPH A GEIS, *Essex* I would like to make a motion that this House of Delegates extend a vote of thanks to the secretarial and other help of the Society who have stayed here so late tonight, and that we authorize the Board of Trustees to make thanks apparent in a more substantial form

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

SPEAKER ANDRESEN It is so recommended

There being no further motions and no further reports of committees, I now declare the meeting adjourned until tomorrow morning at 9 o'clock

The session adjourned at 11 25 P M

WEDNESDAY MORNING SESSION

May 4, 1949

The session reconvened at 9 A M

Section 177

Announcement of Death of Delegate John L O'Brien

SPEAKER ANDRESEN The Chair wishes to recognize Dr Van Etten. (*Applause*)

DR NATHAN B VAN ETTEN, *Past President* Mr Speaker and members of the House, it is with deep sadness at this moment that it is my duty to announce to the House the sudden death of one of your members, long a delegate to this House, constructive thinker, intelligent critic, hard worker and devoted physician, distinguished in his work in New York City, Dr John L O'Brien, of the Bronx, died suddenly last night

Mr Speaker, I ask that the House stand in silent tribute to Dr O'Brien, and that the Secretary communicate with Dr O'Brien's family expressing the great regret that this House has over its serious loss

The delegates arose and stood in silent tribute to the memory of Dr John L O'Brien

Section 178

Announcements

SPEAKER ANDRESEN I wish to announce again that the tickets for the banquet are still available

I wish also to ask you to go to the Technical Exhibits, to sign upstairs on the 17th floor The Technical Exhibits support this meeting, and they judge the success of the meeting by the number of people who have registered, so it is really our duty to go up and register on the 17th floor and to look at some of the exhibits

I also have to announce that the Council meets either directly after this session or, if the session lasts too long, at 2 P M in the rooms of the Erie County Medical Society on the 18th floor

The Trustees will meet immediately afterward.

I wish to say a few words of appreciation of the work of this House. You are certainly the best House ever to represent the medical profession of New York. You have been remarkably patient, attentive, and cooperative You have not been too critical of my mistakes The experienced parliamentarians among you have helped me through many tight places, and I wish to thank particularly Drs Rooney, Bauer, and Reuling for their help on several such occasions

Several of the new members of the House have remarked to me what a revelation it has been to see this House at work. They and the occasional guests who have observed our work from the back of the room have marveled at the endurance and alertness of this aggregation of decrepit old men From what they had heard and read they expected to find this House as well as the House of Delegates of the American Medical Association, as was mentioned yesterday, a sort of old men's home with groups of cackling superannuated armchair sitters exchanging wheezes and ancient anecdotes and in between passing lightly a few nonsensical inconsequential resolutions

It is further remarkable that, with few exceptions, this group of indefatigable workers for the good of the medical profession and for the interests of the public have come here at their own expense Our Publicity Bureau missed a wonderful opportunity when it failed to have pictures taken of the beehive of activity in the foyer here when our twenty reference committees were meeting there on Monday, and when our House was working last night until a late hour

You all look tired after your long sessions yesterday when we spent actually eleven hours in here at work, but you may be proud of what you accomplished. It was really too much, and we must consider the advisability of a full three-day session

Section 179

Elections

SPEAKER ANDRESEN We now come to the first

business of the morning, which will be the election of officers, and when the election is over will you please go back to your seats We still have business to attend to We have at least four more reference committees to hear from, and there are a number of resolutions that have to be taken up this morning Mr Secretary, is there a quorum present?

SECRETARY ANDERTON Yes, sir

SPEAKER ANDRESEN Will the Secretary please read the names of the tellers, and please answer to your name We must have thirty tellers to do an efficient job

The Secretary read the following names, from whom were selected the tellers

Harold F Morrison
Grant Thorburn
Moses H. Krakow
Clifton H. Berlinghof
Daisy H Van Dyke
Alfred P Ingegno
Aaron Kottler
Abraham Rabiner
E. Kenneth Horton
E. Percy Eglee
Peter M Murray
Felix Ottaviano
Homer J Cudmore
Norton S Brown
John F Kelley
David H. MacFarland
W Walter Street
James Greenough
Jacob Werne
Joseph L Kiley
Charles F Rourke
Milton J Daus
Harry S Fish
Morris Maslon
Philip M Standish
Arthur C Glover
Alexis Leonidoff
Seymour G Clark
Harold C Kelley
George A Burgin
Nathan Brodie
Irving H. Blumenfeld
Edwin A. Griffin
E Harrison Griffin
William Ostrow
Edgar O Boggs
Brittain F Payne
Kenneth M Lewis
W Laurence Whittemore
Samuel W Moore
Theodore R. Proper
Sol Axelrad
Arthur A. Fischl
Richard P Doody
David W Beard
Cyril Drysdale
Charles F Rourke
Edward F Stanton
Beverly C Smith

SPEAKER ANDRESEN I think approximately thirty answered As soon as you put your ballot in the box, will you go outside? Dr McCarty, the chief teller, will meet you outside and brief you in regard to the action we are going to take when the ballots come in I will just read you Chapter III, Section 5, of the By laws

"In the event of a single nominee only for any office, a majority vote without ballot shall elect."

In such case the Chair will entertain a motion for closing the nominations and declaring the candidate elected

Ballots will be distributed to fill out the spaces for which multiple candidates have been nominated only, not the ones where there have been single nominations, and they have been elected by viva voce vote

In connection with the delegates, we will elect this year eleven to the American Medical Association, so we will have to vote for twenty-two, because we have to have eleven alternates as well We must, therefore, have at least twenty-two nominations for delegates

NOMINATIONS AND ROLL CALL

Nominations were received

Assistant Secretary Frey read the following list of those who were entitled to vote

OFFICERS COUNCILORS, AND TRUSTEES

Leo F Simpson
John J Masterson
Louis H Bauer
Theodore J Curphey
W P Anderton
W Guernsey Frey Jr
James R. Reuling
Fenwick Beekman
Albert F R Andresen
Nelson W Strohm
William H Ross
Christopher Wood
Charles M Allaben
Frederic W Holcomb
Renato J Azzari
Floyd S. Winslow
J Stanley Kenney
Maurice J Dattelbaum
Edward T Wentworth
Edward R. Cunniffe
James F Rooney
Dan Mellen

EX-PRESIDENTS

James F Rooney
(registered as Trustee)
Nathan B Van Etten
Harry R. Trick
William H. Ross
(registered as Trustee)
Chas. Gordon Heyd
Arthur J Bedell
Floyd S Winslow
(registered as Cou
Thomas A. McGold
Herbert H. Bauckus
Edward R. Cunniffe
(registered as Tru
Louis H. Bauer
(registered as Im
Past President)

DISTRICT DELEGATES

Harold F Morrison
Frederic W Holcomb
(registered as Councilor)
Denver M. Vickers
James E. McAskill
Charles L. Pope
Kenneth T Rowe
Robert C Peale

SECTION DELEGATES

Harold C Kelley
Grant Thorburn
Maurice J Costello
A W Martin Marino
Harry V Spaulding
Edwin W Gates
Burton M Shimmers
Charles W Mueller
Thomas H. Johnson
Halford Hallock
Stephen H Curtis
(registered as
Delegate)
William J Orr
Frederic E. Elliott
Seymour G Clark
William A. Milner

DELEGATES FROM COMPONENT COUNTY SOCIETIES

Albany (5)
James W Bucci
Thomas O Gamble
Raymond F Kircher
Joseph C O Gorman
Milton G Potter

Allegany (1)
Irwin Felsen

Bronx (13)
Arnold A. Costabile
Samuel Schneierson
Edward P Flood
Anthony C Galluccio
Goodlatte B Gilmore
Samuel Rosenzweig
Samuel Leo
Moses H. Krakow
Frank LaGattuta
Thomas F McCarthy
Frederick W Williams
Frederick A. Wurzbach, Jr

Broome (3)
Clifton H Berlinghof
Elton R. Dickson
J C Zillhardt

Cattaraugus (1)
Leo E. Reimann

Cayuga (1)
Alfred K. Bates

Chautauqua (2)
Edgar Bieber
Charles E. Goodell

Chemung (3)
William T Boland
Arthur C Glover

Chenango (1)
Archibald K. Benedict

Clinton (1)
Leo F Schiff

Columbia (1)
John L. Edwards

Cortland (1)

Delaware (1)
Orin Q Flint

Dutchess (3)
Donald Malven
Alexis Leonidoff
Scott Lord Smith

Erie (5)
A. H. Aaron
E Dean Babbage
Harold F R. Brown
Herbert E. Wells
Harry C Guess
Donald R. MacKay

Essex (1)
Joseph A. Geis

Franklin (1)
Daisy H. Van Dyke

Fulton (1)
Sylvester C Clemans

Genesee (1)
Peter J Di Natale

Greene (1)
Kenneth F Bott

Herkimer (1)
George A. Burgin

Jefferson (1)
Carl B Alden

Kings (24)
Charles A. Anderson
Louis Berger
Benjamin M Bernstein
Irving H. Blumenfeld
Nathan Brodie
Leo S Drexler
Edwin A. Griffin
E Harrison Griffin
Frank C Hamm
Alfred P Ingegno
Abraham Koplowitz
Charles H. Loughran
Charles F McCarty
Donald E. McKenna
Aaron Kottler
William Ostrow
Abraham Rabiner
Irving J Sands
Irwin Siris
Solomon Schussheim
Morris Weintrob
Thomas B Wood

Lewis (1)

Livingston (1)
Charles Gullo

Madison (1)
Felix Ottaviano

Monroe (5)
Joseph P Henry
Charles S Lakeman
Libby Pulsifer
Gordon M Hemmett
Ellis P Soble

Montgomery (1)

Nassau (5)
Eugene H Coon
Joseph Zimring
John M Galbraith
Austin B Johnson
E. Kenneth Horton

New York (24)
Homer J Cudmore
Norton S. Brown
Clarence G Bandler
Samuel B Burk
Edward F Stanton
A. Wilbur Duryee
E. Percy Eglee
Brittan F Payne
Samuel Z Freedman
John H. Garlock
B. Wallace Hamilton
Theresa Scanlan
Beverly C Smith
Margaret Janeway
John J H Keating
Kenneth M Lewis
Francis Donehue
Gervais W McAuliffe
Madge C L. McGuinness
Samuel W Moore
Peter M Murray
Charles Muzzicato
William B Rawls
W Laurence Whittemore

Niagara (2)
William A. Peart
Guy S Philbrick

Oneida (3)
Arthur F Gaffney
John F Kelley
David H. MacFarland

Onondaga (4)
Leo E Gibson
Dwight V Needham
W Walter Street
Frederick S Wetherell

Ontario (3)
Homer J Knickerbocker
Philip M. Standish

Orange (3)
M. Renfrew Bradner
Theodore R. Proper
Thomas D McMenamin

Orleans (1)
John S. Roach

Oswego (1)
Ohn J Mowry

Otsego (1)
James Greenough

Putnam (1)
Henry W Miller

Queens (12)
David Raskind
Sol Axelrad
Henry L Fineberg
William Benenson
Frank J Cerniglia
Meyeron Coe
Thomas M D Angelo
Arthur A. Fischl
Benjamin F Glasser
Ferdinand H Herrman
George Lawrence Jr
Ezra A Wolff

Rensselaer (3)
Stephen H Curtis
Richard P Doody

Richmond (3)
John J Goller
Walter T Heldmann
Stanley C Pettit

Rockland (3)
Stephen R. Monteith

St. Lawrence (1)
Thomas M Watkins

Saratoga (1)
Joseph L Kiley

Schenectady (3)
Joseph H Cornell
Charles F Rourke

Schoharie (1)
David W Beard

Schuyler (1)
Milton J Daus

Seneca (1)
Stanley B Folts

Steuben (1)
William J Tracy

Suffolk (3)
David Corcoran
Cyril Drysdale
John L. Sengstack

Sullivan (1)
Harry Golembe

Tioga (1)
Harry S. Fish

Tompkins (1)
Norman S Moore

Ulster (3)
Eugene F Galvin
Edward P Shea

Warren (1)
Morris Maslon

Washington (1)
Walter S Bennett

Wayne (1)
Ralph Sheldon

Westchester (6)
Andrew A. Eggston
Edwin L Harmon
Reginald A. Higgons
Reid R. Heffner
Henry E. McGarvey
C James F Parsons

Wyoming (1)
G Stanley Baker

Yates (1)
E. Carlton Foster

ELECTION OF OFFICERS, TRUSTEES, AND COUNCILORS

The following officers were elected for one year
President-Elect, Carlton E Wertz, *Buffalo*
Second Vice-President, James E McAskill, *Watertown*
Secretary, W P Anderton, *New York*
Assistant Secretary, Andrew A. Eggston, *Mount Vernon*
Treasurer, James R. Reuling, *Bayside*
Assistant Treasurer, Fenwick Beekman, *New York*
Speaker, Albert F R. Andresen, *Brooklyn*
Vice-Speaker, Frederic W Holcomb, *Kingston*
Trustee for Five Years, William H Ross, *Brentwood*
Trustee for Four Years, Dan Mellen, *Rome*
Councilors for Three Years, Theodore J Curphey, *Garden City*, Harold F R Brown, *Buffalo*, Elton R. Dickson, *Binghamton*
Councilors for Two Years, George C Adie, *New Rochelle*, Leo E Gibson, *Syracuse*
Councilor for One Year, Renato J Azzari, *Bronx*

ELECTION OF A.M A. DELEGATES

The following were elected 1950–1951 delegates John J Masterson, *Kings*, Leo F Simpson, *Monroe*, Thomas A. McGoldrick, *Kings*, George W Kosmak, *New York*, J Stanley Kenney, *New York*, Peter J Di Natale, *Genesee*, Andrew A Eggston, *Westchester*, Stephen R. Monteith, *Rockland*, Renato J Azzari, *Bronx* Peter Murray, *New York*, Joseph P Henry, *Monroe*

The following were elected 1950–1951 alternate delegates Maurice J Dattelbaum, *Kings*, Scott Lord Smith, *Dutchess* Samuel B Burk, *New York*, Thomas M D'Angelo, *Queens*, Joseph A Geis, *Essex*, Ezra A. Wolff, *Queens*, Denver M Vickers, *Washington* John L. Edwards, *Columbia*, Gervais W McAuliffe, *New York*, Madge C L McGuinness, *New York*, Thomas M Watkins, *St. Lawrence*

Section 180

Election to Retired Membership

SPEAKER ANDRESEN We have another matter to take up and that is the election to retired membership The names of those have been published in the announcement, have they?

SECRETARY ANDERTON There are a few additions

Henry D Abbott *Buffalo*
Herman D Andrews *East Aurora*
Clement Dorra *New York City*
Edward S Godfrey Jr *Albany*
Charles H. Keene *Kenmore*
Charles A. Lawler *Salamanca*
Ira W Livermore *Gowanda*
Clayton H Snover *Randolph*
James A. Taggert, *Salamanca*

In order that one gentleman may become eligible for retired membership it gives me pleasure to move that there be the remission of the War Memorial assessment of Dr Clement Dorra, due to illness

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. B WALLACE HAMILTON Now I move that all these men, including those printed and the additions, be elected to retired membership

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried, the complete list being as follows

Henry D Abbott, *Buffalo*
David E Alexander *New York City*
Charles E. Allaume *Utica*
Morris Robert Altman *New York City*
Herman D Andrews *East Aurora*
Carmelo Atonna *New York City*
Benjamin A. Barney *Hornell*
Robert L Bartlett, *Rome*
Henry C Becker *Rockland, Maine*
Marcus I. Blank, *New York City*
Dominic G Bodkin *Brooklyn*
Julius B Boehm, *Brooklyn*
Frank W Bradner *Brooklyn*
William Paul Brown, *Albany*
Domenico Candela *Brooklyn*
Alfred E Cohn, *New York City*
Thomas E. Cooney *Lime Rock Connecticut*
Frederick Coonley *Staten Island*
James E Crossman *Canisteo*
Clarence D Daniels *Veridian*

business of the morning, which will be the election of officers, and when the election is over will you please go back to your seats We still have business to attend to We have at least four more reference committees to hear from, and there are a number of resolutions that have to be taken up this morning Mr Secretary, is there a quorum present?

SECRETARY ANDERTON Yes, sir

SPEAKER ANDRESEN Will the Secretary please read the names of the tellers, and please answer to your name We must have thirty tellers to do an efficient job

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Clifton H Berlinghof
Daisy H Van Dyke
Alfred P Ingegno
Aaron Kottler
Abraham Rabiner
E Kenneth Horton
E Percy Eglee
Peter M Murray
Felix Ottaviano
Homer J Cudmore
Norton S Brown
John F Kelley
David H. MacFarland
W Walter Street
James Greenough
Jacob Werne
Joseph L Kiley
Charles F Rourke
Milton J Daus
Harry S Fish
Morris Maslon
Philip M Standish
Arthur C Glover
Alexis Leonidoff
Seymour G Clark
Harold C Kelley
George A Burgin
Nathan Brodie
Irving H Blumenfeld
Edwin A. Griffin
E Harrison Griffin
William Ostrow
Edgar O Boggs
Brittain F Payne
Kenneth M Lewis
W Laurence Whittemore
Samuel W Moore
Theodore R. Proper
Sol Axelrad
Arthur A. Fischl
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David W Beard
Cyril Dryadale
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Beverly C Smith

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Louis H. Bauer
Theodore J Curphey
W P Anderton
W Guernsey Frey Jr
James R. Reuling
Fenwick Beekman
Albert F R. Andresen
Nelson W Strohm
William H Ross
Carlton E Wertz
Christopher Wood
Charles M Allaben
Frederic W Holcomb
Renato J Azzari
Floyd S. Winslow
J Stanley Kenney
Maurice J Dattelbaum
Edward T Wentworth
Edward R. Cunniffe
James F Rooney
Dan Mellen

EX PRESIDENTS

James F Rooney (registered as Trustee)
Nathan B Van Etten
Harry R Trudeau
William H. Ross (registered as Trustee)
Chas. Gordon Heyd
Arthur J Bedell
Floyd S Winslow
Thomas A. McGoldrick
Herbert H. Bauckus
Edward R. Cunniffe (registered as Trustee)
Louis H. Bauer (registered as Immediate Past President)

DISTRICT DELEGATES

Harold F Morrison
Frederic W Holcomb (registered as Councilor)
Denver M Vickers
James E. McAskill
Charles L. Pope
Kenneth T Rowe
Robert C Peale

SECTION DELEGATES

Harold C Kelley
Grant Thorburn
Maurice J Costello
A W Martin Marino
Harry V Spaulding
Edwin W Gates
Burton M Shinners
Charles W Mueller
Thomas H. Johnson
Halford Hallock
Stephen H. Curtis (registered as County Delegate)
William J Orr
Frederic E Elliott
Seymour G Clark
William A. Milner

DELEGATES FROM COMPONENT COUNTY SOCIETIES

Albany (3)
James W Bucci
Thomas O Gamble
Raymond F Kircher
Joseph C O Gorman
Milton G Potter

Allegany (1)
Irwin Felsen

Bronx (13)
Arnold A. Costabile
Samuel Schneierson
Edward P Flood
Anthony C Galluccio
Goodlatte B Gilmore
Samuel Rosenzweig
Samuel Leo
Moses H Krakow
Frank LaGattuta
Thomas F McCarthy
Frederick W Williams
Frederick A Wurzbach Jr

Broome (3)
Clifton H Berlinghof
Elton R. Dickson
J C Zillhardt

Cattaraugus (1)
Leo E Reimann

Cayuga (1)
Alfred K Bates

Chautauqua (2)
Edgar Bieber
Charles E. Goodell

Chemung (3)
William T Boland
Arthur C Glover

Chenango (1)
Archibald K. Benedict

Clinton (1)
Leo F Schiff

Columbia (1)
John L. Edwards

Cortland (1)

Delaware (1)
Orin Q Flint

Dutchess (3)
Donald Malven
Alexis Leonidoff
Scott Lord Smith

Erie (8)
A. H. Aaron
E Dean Babbage
Harold F R. Brown
Herbert E. Wells
Harry C Guess
Donald R. McKay

Essex (1)
Joseph A. Geis

Franklin (1)
Daisy H. Van Dyke

Fulton (1)
Sylvester C Clemans

Genesee (1)
Peter J Di Natale

Greene (1)
Kenneth F Bott

Herkimer (1)
George A. Burgin

Jefferson (1)
Carl B Alden

Kings (24)
Charles A. Anderson
Louis Berger
Benjamin M Bernstein
Irving H. Blumenfeld
Nathan Brodie
Leo S Drexler
Edwin A. Griffin
E. Harrison Griffin
Frank C Hamm
Alfred P Ingegno
Abraham Koplowitz
Charles H. Loughran
Charles F McCarty
Donald E. McKenna
Aaron Kottler
William Ostrow
Abraham Rabiner
Irving J Sands
Irwin Sirus
Solomon Schussheim
Morris Weintrob
Thomas B Wood

Lewis (1)

Livingston (1)
Charles Gullo

Madison (1)
Felix Ottaviano

Monroe (5)
Joseph P Henry
Charles S Lakeman
Libby Pulmer
Gordon M. Hemmett
Ellis P Soble

Montgomery (1)
Roman R. Violyn

Nassau (5)
Eugene H Coon
Joseph Zimring
John M Galbraith
Austin B Johnson
E Kenneth Horton

New York (84)
Homer J Cudmore
Norton S. Brown
Clarence G Bandler
Samuel B Burk
Edward F Stanton
A. Wilbur Duryee
E. Percy Eglee
Brittain F Payne
Samuel Z. Freedman
John H. Garlock
B Wallace Hamilton
Theresa Scanlan
Beverly C Smith
Margaret Janeway
John J H. Keating
Kenneth M Lewis
Francis Donehue
Gervais W McAuliffe
Madge C L. McGunness
Samuel W Moore
Peter M. Murray
Charles Muzzicato
William B Rawls
W Laurence Whittemore

Niagara (3)
William A. Peart
Guy S Philbrick

Oneida (3)
Arthur F Gaffney
John F Kelley
David H. MacFarland

Onondaga (4)
Leo E Gibson
Dwight V Needham
W Walter Street
Frederick S. Wetherell

Ontario (3)
Homer J Knickerbocker
Philip M. Standish

Orange (3)
M Renfrew Bradner
Theodore R. Proper
Thomas D McMenamin

Orleans (1)
John S Roach

Oswego (1)
John J Mowry

Otsego (1)
James Greenough

Putnam (1)
Henry W Miller

Queens (18)
David Raskind
Sol Axelrad
Henry I Fineberg
William Benenson
Frank J Cermgha
Meyeron Coe
Thomas M D Angelo
Arthur A. Fischl
Benjamin F Glasser
Ferdinand H Herrman
George Lawrence Jr
Ezra A Wolff

Rensselaer (2)
Stephen H Curtis
Richard P Doody

Richmond (3)
John J Goller
Walter T Heldmann
Stanley C Pettit

Rockland (2)
Stephen R. Monteith

St. Lawrence (1)
Thomas M Watkins

Saratoga (1)
Joseph L. Kiley

Schenectady (2)
Joseph H Cornell
Charles F Rourke

Schoharie (1)
David W Beard

Schuyler (1)
Milton J Daus

Seneca (1)
Stanley B Folts

Steuben (1)
William J Tracy

Suffolk (3)
David Corcoran
Cyril Drysdale
John L. Sengstack

Sullivan (1)
Harry Golembe

Tioga (1)
Harry S Fish

Tompkins (1)
Norman S Moore

Ulster (2)
Eugene F Galvin
Edward P Shea

Warren (1)
Morris Maslon

Washington (1)
Walter S Bennett

Wayne (1)
Ralph Sheldon

Westchester (6)
Andrew A Eggston
Edwin L Harmon
Reginald A. Higgons
Reid R. Heffner
Henry E McGarvey
C James F Parsons

Wyoming (1)
G Stanley Baker

Yates (1)
E. Carlton Foster

ELECTION OF OFFICERS, TRUSTEES, AND COUNCILORS

The following officers were elected for one year
President-Elect, Carlton E Wertz, *Buffalo*
Second Vice-President, James E McAskill, *Watertown*
Secretary, W P Anderton, *New York*
Assistant Secretary, Andrew A. Eggston, *Mount Vernon*
Treasurer, James R. Reuling, *Bayside*
Assistant Treasurer, Fenwick Beekman, *New York*
Speaker, Albert F R. Andresen, *Brooklyn*
Vice-Speaker, Frederic W Holcomb, *Kingston*
Trustee for Five Years, William H Ross, *Brentwood*
Trustee for Four Years, Dan Mellen, *Rome*
Councilors for Three Years, Theodore J Curphey, *Garden City*, Harold F R. Brown, *Buffalo*, Elton R. Dickson, *Binghamton*
Councilors for Two Years, George C Adie, *New Rochelle*, Leo E Gibson, *Syracuse*
Councilor for One Year, Renato J Azzari, *Bronx*

ELECTION OF A.M.A. DELEGATES

The following were elected 1950–1951 delegates John J Masterson, *Kings*, Leo F Simpson, *Monroe*, Thomas A. McGoldrick, *Kings*, George W Kosmak, *New York* J Stanley Kenney, *New York*, Peter J Di Natale, *Genesee*, Andrew A. Eggston, *Westchester*, Stephen R. Monteith, *Rockland*, Renato J Azzari, *Bronx*, Peter Murray, *New York*, Joseph P Henry, *Monroe*

The following were elected 1950–1951 alternate delegates Maurice J Dattelbaum, *Kings*, Scott Lord Smith, *Dutchess* Samuel B Burk, *New York*, Thomas M. D'Angelo, *Queens*, Joseph A. Geis, *Essex*, Ezra A. Wolff, *Queens*, Denver M Vickers, *Washington*, John L Edwards, *Columbia*, Gervais W McAuliffe, *New York*, Madge C L McGunness, *New York*, Thomas M Watkins, *St Lawrence*

Section 180

Election to Retired Membership

SPEAKER ANDRESEN We have another matter to take up and that is the election to retired membership The names of those have been published in the announcement, have they?

SECRETARY ANDERTON There are a few additions

Henry D Abbott, *Buffalo*
Herman D Andrews *East Aurora*
Clement Dorra *New York City*
Edward S Godfrey Jr *Albany*
Charles H. Keene, *Kenmore*
Charles A. Lawler *Salamanca*
Ira W Livermore *Gowanda*
Clayton H Snover *Randolph*
James A. Taggert *Salamanca*

In order that one gentleman may become eligible for retired membership it gives me pleasure to move that there be the remission of the War Memorial assessment of Dr Clement Dorra, due to illness

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

DR. B WALLACE HAMILTON Now I move that all these men, including those printed and the additions, be elected to retired membership

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried, the complete list being as follows

Henry D Abbott, *Buffalo*
David E. Alexander *New York City*
Charles E Alliaume *Utica*
Morris Robert Altman *New York City*
Herman D Andrews *East Aurora*
Carmelo Atonna *New York City*
Benjamin A Barney *Hornell*
Robert L Bartlett, *Rome*
Henry C Becker *Rockland, Maine*
Marcus I Blank, *New York City*
Dominic G Bodkin *Brooklyn*
Julius B Boehm, *Brooklyn*
Frank W Bradner *Brooklyn*
William Paul Brown *Albany*
Domenico Candela *Brooklyn*
Alfred E Cohn *New York City*
Thomas E Cooney *Lime Rock Connecticut*
Frederick Coonley *Staten Island*
James E. Crossman *Canisteo*
Clarence D Daniels *Meridian*

George W Davis *Oneida*
Clement Dorra *New York City*
Frederick W Filsinger *Buffalo*
George G Fisher *Newhall, California*
Carl C Franken *New York City*
David I Frey *Bronx*
Juha R Gibson *Flushing*
Edward E Gillick, *Youngstown*
Alexander Gilligan *Brooklyn*
Edward S Godfrey Jr *Albany*
Joseph E Golding *Setauket*
Malcolm Goodridge *New York City*
Charles T Graham Rogers *Ridgefield Connecticut*
John Gromann *Utica*
Abraham Grossman *Bronx*
Edward E Haley *Buffalo*
Robert Hurtin Halsey *New York City*
Addison T Halstead *Rushville*
Samuel W Hamilton *Cedar Grove New Jersey*
William P Healy *New York City*
Lewis W Heizer *Watertown*
Clifford W Hendrickson *New Rochelle*
Philip F Hoffman, *White Plains*
Charles H Holmes *Cambridge*
Edward F Horr *Barneveld*
Leo Jacobi *New York City*
Cyrus P Jennings *Macedon*
Willard B Jolls, *Orchard Park*
Henry M Kalvin *Brooklyn*
Charles H Keene *Kenmore*
Reynold Kutner *New York City*
Charles A. Lawler *Salamanca*
Max Lederer *Brooklyn*
Heinrich Lehndorff, *New Rochelle*
Adolphe Letellier, *Seneca Falls*
Richard Lewisohn *New York City*
Elis I Lindgren *New York City*
Ira W Livermore *Gowanda*
Jerome M Lynch, *Pasadena California*
William John Maby *Mechanicville*
James F Maltman *Canandaigua*
Charles E Manning *Brooklyn*
Andrew J McGowan, *New Brighton*
Russell J McGraw *Coral Gables Florida*
John P McQuilkin *Westhampton Beach*
Willis E Merriman *Utica*
Henry E B Meyer *Garden City*
Ward A Minor, *Utica*
Joseph F Morris *Brooklyn*
L Howard Moss *Richmond Hill*
Harrison F Murray, Sr *Port Jervis*
Tom A. Northcott, *New York City*
Philip Ognis *Brooklyn*
F Burton Otis *Brooklyn*
Ethelbert G Padgham *Geneva*
Pietro Pellegrini *New York City*
Herbert S Pierson *New York City*
Samuel D Piquet *Mattituck*
Benjamin Posinka *Bronx*
William V Quinn *Utica*
William Rachlin, *Great Neck*
Anna M Ralston *Brooklyn*
Reuben A Reeves *Canandaigua*
Samuel C Reisman, *New York City*
E Roberts Richie *Brewster*
Augusta Rucker *New York City*
Emerson W Rude *Utica*
William C Sandy *Ithaca*
Abraham S Schwartz *Brooklyn*
Hugh H Shaw *Utica*
Milton J Shelley, *Middletown*
Samuel S Siker *Miami Beach Florida*
S Melville Skinner *Setauket*
Clayton H. Snover *Randolph*
John A. Spengler *Geneva*
Emanuel Stern, *New York City*
Alexander R. Stevens *Alstead Center New Hampshire*
Harry H Stevens *Yonkers*
Barnet P Stivelman *New York City*
Alexander A. Stone *Brooklyn*
Louis Stork, *Poughquag*
Conrad O Stumpf *Forest Hills*
Paul G Taddiken *Ogdensburg*
James A Taggert *Salamanca*
Herman W Taylor *Kingston*
John H Telfair *Yonkers*
Charles Frederick Tenney *New York City*
George W Tong *Santa Barbara California*
Edward C Thompson *Newburgh*
Alvah H Traver *Albany*
Zina Gifford Truesdell *Warsaw*
Philip Van Ingen *New York City*
Harry P Van Wagenen *Kingston*
Camilio Verta *Schenectady*
William J Vogeler *Yonkers*
Max L Wager, *Bronx*
Jacob Mark Wallfield *Brooklyn*
Thomas J Walsh, *Buffalo*
Wilbur Ward *Pasadena California*
Frederick Washnitzer *Brooklyn*
Edward M Welles *Troy*
James H. Whaley *Rome*
Frank J Williams *Albany*
Willets Wilson *Ithaca*
George D Winchell *Rose*
Abraham L Wincor, *Bronx*
Charles A Wisch *North Tonawanda*
Abraham Leo Wolbarst *New York City*
Francis Carter Wood *Englewood New Jersey*
Max A. Zipser *New York City*

SPEAKER ANDRESEN I will declare a recess for ten minutes until we get further reports

Recess

Section 181 (*See 72, 106, 193*)

Report of Reference Committee on Report of Council, Part IX Basic Science Law

SPEAKER ANDRESEN The first thing we have to consider this morning is the deferred discussion on the Report of the Council, Part IX, Dr Rawls

DR CHARLES GULLO, *Livingston* May I ask a question?

SPEAKER ANDRESEN Yes

DR. GULLO Is this the report on my resolution?

SPEAKER ANDRESEN Yes

DR. GULLO I ask that this House defer action on this report until such time as the tellers are back here so they can vote when it is time to vote and hear the arguments against it I have information of vital importance to this House that I want everyone to hear

DR. FREDERICK S WETHERELL, *Onondaga* I second that motion

There being no discussion, the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN It is deferred until the tellers announce their vote and return to the House All of you who are interested in this matter, will you kindly come to the fore and give your reasons to the Committeee? In that way we will save an awful lot of time on the floor I am referring now to the matter of the $25 assessment, which is now being considered by that reference committee

Are there any other reference committees ready to report?

Section 182 (*See 174*)

Report of Reference Committee on Report of Council, Part VII Voluntary Medical Care Insurance Participation

DR GUY S PHILBRICK, *Niagara* Mr Speaker this resolution was introduced late last night by Dr Charles Gullo, of Livingston

(*Resolution given in full—Section 174*)

Your Reference Committee wishes to approve this resolution, and I so move

The motion was seconded.

SPEAKER ANDRESEN The Reference Committee has moved the approval of the resolution Is there any discussion?

DR GULLO This resolution contemplates far more than appears on the surface It was introduced after consultation with Dr Wertz and Mr Farrell, and it is going to mean a lot of work for every one of you, those that will be asked—and of course you all belong to a plan and probably will all be asked. It contemplates an active campaign in the State of New York to give an example to the rest of the states and to the rest of the nation as to what can be done with effort in the next five months to bring prepaid insurance to our people.

Mr Farrell has done an excellent job, but the county societies have not They have merely done a fair job If you are going to prevent socialized medicine, you have got to wake up and do something about it You have to have a fait accompli so that Washington will know that our people are covered for the emergency, and that at least part of their medical care is paid for and practically all of their hospital bill is paid for This contemplates an active selling campaign with the participation and enrolment, which does not exist today, of every single doctor in the State of New York.

The question was called, and the motion was put to a vote, and was unanimously carried

SPEAKER ANDRESEN Are there any other reference committees ready to report?

There was no reply

SPEAKER ANDRESEN Dr Rawls, you have a motion to make?

Section 183

Vote of Thanks to Chairman of Scientific Exhibits and His Committee

DR. WILLIAM B RAWLS, *New York* I would like to move this House extend a vote of thanks to the chairman on Scientific Exhibits, Dr J G Fred Hiss, of Syracuse, as well as to his committee and all of the exhibitors for their valuable contributions to the scientific interests of the State Society meeting

DR CLARENCE G BANDLER, *New York* I second that motion.

There being no discussion, the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN That motion is carried, and that message will be taken to Dr Hiss

Section 184 (*See 54, 141*)

Request to Reconsider Action Already Taken re Voluntary Service in Medical Corps

DR. MORRIS WEINTROB, *Kings* Mr Speaker and members of the House of Delegates, I would like to move a reconsideration of the motion that was introduced by Dr I J Sands of Kings yesterday and was defeated. The motion is this, that it is the consensus of opinion of the House of Delegates that residencies in the various specialties of medicine and assistantships on the different visiting staffs of the hospitals be given only to those doctors who have given active service in the Medical Corps of the armed forces of our country

The motion was seconded, and as there was no discussion, it was put to a vote, and it was lost

SPEAKER ANDRESEN The "Nays" have it, and it cannot be reconsidered.

Section 185 (*See 132*)

Reconsideration of Resolution Referred to Council on Cancer and Results of Industrial and Traumatic Surgery

DR J STANLEY KENNEY, *Councilor* Mr Speaker and gentlemen, there was a resolution introduced by Dr Norman Moore yesterday, which I would like to ask the House for permission to reconsider It will only take a minute It is noncontroversial It will not take up the disbursement of any funds This resolution was referred to the Council, but it is felt that it is of sufficient general importance to the medical profession that this House approve it now so request, that this be reconsidered

CHORUS What is it?

DR. JAMES F ROONEY, *Trustee* Point of order, the motion is a motion to reconsider, and before the materiality of the matter that Dr Kenney has spoken about can even be taken up the motion to reconsider must be passed. The two things cannot be embodied in the one motion

SPEAKER ANDRESEN The motion to reconsider is before us Does anybody second it?

CHORUS Reconsider what?

DR. CLARENCE G BANDLER, *New York* It is hard to know whether we want to reconsider it when we don't understand what it is

DR. KENNEY Dr Rooney just stated I could not tell what it is

DR ROONEY I did not say that Dr Kenney was already starting to say what different action he requested when he was moving to reconsider a certain proposal that was passed by the House I am not trying to strangle debate Heaven knows I am trying to expedite this thing in a parliamentary way, and avoid doing the stuff that this House has done year after year the last day of the session when these things have been taken up in a hurry, and mistake after mistake has been made in the effort to get away The motion that you desire to reconsider can be stated, but not what other action you want taken on it, until after the House has voted to reconsider it The men are tired, and they will vote aye to almost anything to get out of here

DR. KENNEY May I state what this resolution is, Mr Speaker?

SPEAKER ANDRESEN We don't know what we will reconsider unless we know what the motion is

DR. ROONEY State what it is, not what alternative action you want taken on it

DR. KENNEY The resolution is that the House of Delegates of the Medical Society of the State of New York requests the chairman of the New York State Workmen's Compensation Board to attempt to obtain the necessary funds needed for study and tabulation of such medical records—and these medical records are valuable records that have been accumulated over the years—the end results of industrial accidents so that these end results may be published and made available to the medical profession

I should like to ask the privilege of the floor of the House for one minute for Dr Willis Weeden, medical director of the Workmen's Compensation Board, to tell us in sixty seconds why he would like us to approve this today

SPEAKER ANDRESEN Does anybody second the motion to reconsider?

DR. ROONEY Point of order this is a motion to reconsider this resolution If and when it is reconsidered then you can extend the floor of the House for discussion.

SPEAKER ANDRESEN I am asking for a second to the motion to reconsider

DR. WILLIAM B RAWLS, *New York* I will second it

The motion was put to a vote, and was carried.

SPEAKER ANDRESEN The motion can be reconsidered. It is now before the House for discussion

DR. KENNEY I would like to ask the privilege of the floor for about sixty seconds for Dr Willis Weeden to explain in a few words why we want this approved.

SPEAKER ANDRESEN I think we had better not qualify it as to seconds

DR. JOSEPH A. GEIS, *Essex* I move we extend the floor to Dr Weeden

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

DR. WILLIS WEEDEN The object of passing this resolution is merely to strengthen the hands of the

chairman of the Workmen's Compensation Board when she goes to the Budget Committee of the State or to private individuals, such as insurance companies, to try and get them to donate funds with which we can get out this vast accumulation of material which, when published, will, I am sure, be of great interest to all of the medical profession

DR. KENNEY The resolved in the resolution is

"*Therefore Be It Resolved* that the House of Delegates of the Medical Society of the State of New York requests the chairman of the New York State Workmen's Compensation Board to attempt to obtain the necessary funds needed for study and tabulation of such medical records so that these end results may be published and made available to the medical profession"

I so move

DR. ROONEY I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 186

Vote of Thanks to Mr Dwight Anderson and his Staff, also Exhibitors

DR. LOUIS H BAUER, *Past President* I would like to move that we extend thanks and commendation to Mr Dwight Anderson and his staff and to the exhibitors who are here in this meeting, not only for the exhibits which have been prepared but for the great aid they have given in making this meeting a success I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 187

Vote of Thanks to Chairman and Members of Scientific Program Committee

DR. FREDERIC W HOLCOMB, *Councilor* Mr Speaker and members of the House, I would like to move that the chairman of our Scientific Program Committee, Dr Alfred Ingegno, of Brooklyn, and members of his committee be thanked for the excellent scientific program they have arranged for this meeting

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 188

Vote of Thanks to the Chairman and Members of Arrangements Committee

DR. FLOYD S WINSLOW, *Councilor* I move a vote of thanks and appreciation on behalf of the House to Dr Harold F R Brown, chairman of the Arrangements Committee of this meeting and the other members of his committee. Considering the difficulty of carrying on this very comprehensive program, he should have a lot of credit and our appreciation for the work that he and his committee have done in entertaining the House of Delegates of the Medical Society of the State of New York and the other departments of the Society at our annual meeting I, therefore, move we extend such vote of thanks and appreciation.

The motion was seconded

SPEAKER ANDRESEN Dr Brown is in the back of the room. I will call for that vote by acclamation

The delegates arose and applauded

SPEAKER ANDRESEN Dr Brown, you very modestly kept in the background We thank you.

Section 189

Vote of Thanks to Management of the Hotel

DR. A W MARTIN MARINO, *Section Delegate* Mr Speaker and members of the House, as our Speaker said this morning this has been one of the most successful meetings that our Society has held Without the eager cooperation of the management of this Hotel I don't think that our Arrangements Committee would have been as successful as it has been I, therefore, move that the management of the Hotel Statler in Buffalo be commended for its eager cooperation in making the arrangements for this meeting and for the fine manner in which those arrangements were carried out

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 190

Report of Committee on Prize Essays

SPEAKER ANDRESEN Has the chairman of the Committee on Prize Essays anything to report?

SECRETARY ANDERTON Yes, I have his report, Mr Speaker, under date of April 20, 1949

"*To the House of Delegates, Gentlemen*

"Seven papers were submitted for the Merritt H. Cash Prize. After careful consideration the Committee decided that none was worthy of the prize award All showed evidence of thought and hard work and we were grateful to the authors for their interest and assiduity

"One paper, 'Perimetry in Retinitis Pigmentosa,' submitted for the Lucien Howe Prize, we recommend for honorable mention

"We send our thanks and appreciation to the disappointed authors and hope they may try again

"Respectfully submitted,
ARMITAGE WHITMAN, M D, *Chairman*
ROGER F LAPHAM, M D
A. H AARON, M D

For the essay, "Perimetry in Retinitis Pigmentosa A Review of 234 Cases," offered in competition for the Lucien Howe Prize, the authors use *this sentence* to designate themselves, "Somewhere beneath the stars is something that you alone can do, never rest until you find it" The authors are Dan M Gordon, M D, and Namlyn R. Kong, B A., of the New York Hospital-Cornell University Medical College. I move that the report of the Committee be accepted and approved with thanks

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 191

Remarks of New President-Elect

SPEAKER ANDRESEN I want you to meet our new President-Elect, Dr Wertz

The delegates arose and applauded

SPEAKER ANDRESEN Will Dr Winslow please escort Dr Wertz to the platform to say a few words to us?

Dr Floyd S Winslow escorted Dr Carlton E. Wertz to the platform amid applause

DR. CARLTON E WERTZ Mr Speaker and fellow members of the House of Delegates, you have had a long tedious session here How you got up this morning to attend this meeting I don't know You

have had lots of talks and lots of speeches so I am not going to bore you with another

We have many difficult things in front of us now, and we will have more for some time to come I just want to say that I want to thank you for the honor you have bestowed upon me. I feel very humble, and I pledge to do all in my power to help the progress of medicine in the State of New York.

Section 192

Remarks of New Vice-President

SPEAKER ANDRESEN Will Dr Dan Mellen escort Dr McAskill to the platform.

There was applause as Dr Dan Mellen escorted Dr James E. McAskill to the platform.

DR. JAMES E MCASKILL Mr Speaker and gentlemen of the House of Delegates, I wish to express my sincere appreciation for the honor you have conferred upon me I hope I may be worthy of your confidence.

This promises to be a very strenuous year for the top officials of our Society It shall be my daily prayer that nothing shall happen to incapacitate our president or president-elect

I hope the Society will have a very successful year I think we might well keep in mind a remark made by our Speaker Monday morning, that our actions will be watched with interest by the public

Thank you!

SPEAKER ANDRESEN Thank you, Dr McAskill!

Section 193 (*See 72, 106, 181*)

Continuation of Report of Reference Committee on Report of Council, Part IX Basic Science Law

SPEAKER ANDRESEN Earlier this morning action was deferred on Dr Gullo's resolution which is under consideration by the Reference Committee on Report of Council, Part IX. Dr Rawls, will you resume the discussion of this subject

DR. WILLIAM B RAWLS, *New York* This resolution was read yesterday I believe, and there was a short discussion of it, then adjournment was taken, and it was to go on again this morning

I have a short statement, with the permission of the Speaker, that I would like to read because since the meeting yesterday there has been a meeting of this Reference Committee I have discussed this at great length. I think the Committee now has spent six or eight hours on this particular resolution.

Yesterday your Committee recommended that this resolution—and perhaps I should read this resolution again, maybe you have forgotten it

DR. CHARLES GULLO, *Livingston* A point of order

SPEAKER ANDRESEN What is your point of order?

DR. GULLO I have been a member of this Society for a long time I have come here for eleven years, and I don't like to stop this This is a democracy, and a democracy demands debate, so everybody can be heard. I don't like to stop debate on anything, but also there is a parliamentary procedure that is to be followed in a democracy

Yesterday out of courtesy to Dr Rawls and to the opponents of our resolution, you did not hear me get up and say, "I will not have Dr Lochner speak." I welcomed his coming here, and we will see who has the correct information However, there is a parliamentary procedure to be followed. Debate was was started yesterday, and Dr Knickerbocker spoke in its favor Dr Bernstein spoke against it. Dr Moore asked for an adjournment, and that was O K. with me, but now we were supposed to come back and vote because yesterday Dr Lochner had to go somewhere and could not be back, and we wanted to hear him. But if it had not been that that chain of events developed, the discussion would have continued, the Reference Committee would not have had time to be interviewed again by the opponents Two hours were spent in the Reference Committee originally, at which Dr Lochner, Dr Hannon, Dr Rooney, and other gentlemen came in and spoke against it Two hours more other than those were spent without anyone being there outside of the Committee, after which the Committee came in with an approval. Therefore, we should consider that report out of courtesy to me I represent Livingston County We are not used to that kind of handling As we were courteous enough to advance no opposition to hearing Dr Lochner, we should now at least consider the report and the recommendation that was on the floor at that time If now the members of the Reference Committee want to talk against it, that is their privilege as Americans.

DR. RAWLS May I say a word, gentlemen? Dr Gullo has spoken, but let me assure you there has been nothing changed or nothing suggested on what I said yesterday I only asked permission to read the resolution.

SPEAKER ANDRESEN I don't see that that applies to the rereading of the resolution. I don't think your point of order is well taken on that.

DR. RAWLS Resolution

"WHEREAS, the injunctive procedure for the control of illegal practice failed of being enacted at the last session of the Legislature, and

"WHEREAS, illegal practice in New York State constitutes a serious menace to public health, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York recommend that through proper channels it have introduced a bill at the next session of the New York State Legislature which will incorporate the principle of the basic science law, namely, that anyone, without any exemptions whatsoever, who holds himself qualified to treat the sick must take an examination in those sciences which are basic in all schools of practice of the healing art. This applies whether the law provides for licensure or not, unless he is expressly exempted, and be it further

"*Resolved*, that any basic science law granting any exemptions to anyone under any circumstances be actively opposed by this Society"

As I started to say a moment ago, I would like the privilege—and the question has been raised as to whether it is constitutional for a committee to change its opinion after discussion has once been begun on the floor I was going to ask that of the Speaker before Dr Gullo raised his point of order

SPEAKER ANDRESEN In view of the fact that the discussion was deferred, I see no reason why the Committee as well as any of our delegates could not discuss the matter further We are not a jury that is locked up I don't see why the Committee could not meet again as long as they had some extra time

Will anybody dispute that decision?

DR. MOSES KRAKOW, *Bronx* I would suggest that we get both opinions, the one that was arrived at before and the one that was arrived at after the discussion.

SPEAKER ANDRESEN Is there any objection to the ruling which I have just made?

DR. JOSEPH A GEIS, *Essex* The matter before the House is the report of the Committee as reported yesterday, and I believe that is the matter that should be debated. The report of the Committee as of yesterday, that is the matter before the House.

chairman of the Workmen's Compensation Board when she goes to the Budget Committee of the State or to private individuals, such as insurance companies, to try and get them to donate funds with which we can get out this vast accumulation of material which, when published, will, I am sure, be of great interest to all of the medical profession

DR. KENNEY The resolved in the resolution is

"*Therefore Be It Resolved* that the House of Delegates of the Medical Society of the State of New York requests the chairman of the New York State Workmen's Compensation Board to attempt to obtain the necessary funds needed for study and tabulation of such medical records so that these end results may be published and made available to the medical profession"

I so move

DR. ROONEY I second the motion

There being no discussion, the motion was put to a vote, and was unanimously carried

Section 186

Vote of Thanks to Mr Dwight Anderson and his Staff, also Exhibitors

DR. LOUIS H BAUER, *Past President* I would like to move that we extend thanks and commendation to Mr Dwight Anderson and his staff and to the exhibitors who are here in this meeting, not only for the exhibits which have been prepared but for the great aid they have given in making this meeting a success I so move

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 187

Vote of Thanks to Chairman and Members of Scientific Program Committee

DR. FREDERIC W HOLCOMB, *Councilor* Mr Speaker and members of the House, I would like to move that the chairman of our Scientific Program Committee, Dr Alfred Ingegno, of Brooklyn, and members of his committee be thanked for the excellent scientific program they have arranged for this meeting

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried

Section 188

Vote of Thanks to the Chairman and Members of Arrangements Committee

DR. FLOYD S WINSLOW, *Councilor* I move a vote of thanks and appreciation on behalf of the House to Dr Harold F R. Brown, chairman of the Arrangements Committee of this meeting and the other members of his committee Considering the difficulty of carrying on this very comprehensive program, he should have a lot of credit and our appreciation for the work that he and his committee have done in entertaining the House of Delegates of the Medical Society of the State of New York and the other departments of the Society at our annual meeting I, therefore, move we extend such vote of thanks and appreciation

The motion was seconded

SPEAKER ANDRESEN Dr Brown is in the back of the room I will call for that vote by acclamation

The delegates arose and applauded

SPEAKER ANDRESEN Dr Brown, you very modestly kept in the background. We thank you.

Section 189

Vote of Thanks to Management of the Hotel

DR. A. W MARTIN MARINO, *Section Delegate.* Mr Speaker and members of the House, as our Speaker said this morning this has been one of the most successful meetings that our Society has held. Without the eager cooperation of the management of this Hotel I don't think that our Arrangements Committee would have been as successful as it has been I, therefore, move that the management of the Hotel Statler in Buffalo be commended for its eager cooperation in making the arrangements for this meeting and for the fine manner in which those arrangements were carried out

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 190

Report of Committee on Prize Essays

SPEAKER ANDRESEN Has the chairman of the Committee on Prize Essays anything to report?

SECRETARY ANDERTON Yes, I have his report, Mr Speaker, under date of April 20, 1949

"*To the House of Delegates, Gentlemen*

"Seven papers were submitted for the Merritt H. Cash Prize After careful consideration the Committee decided that none was worthy of the prize award. All showed evidence of thought and hard work and we were grateful to the authors for their interest and assiduity

"One paper, 'Perimetry in Retinitis Pigmentosa,' submitted for the Lucien Howe Prize, we recommend for honorable mention

"We send our thanks and appreciation to the disappointed authors and hope they may try again

"Respectfully submitted,
ARMITAGE WHITMAN, M D, *Chairman*
ROGER F LAPHAM, M D
A. H AARON, M D

For the essay, "Perimetry in Retinitis Pigmentosa A Review of 234 Cases," offered in competition for the Lucien Howe Prize, the authors use this sentence to designate themselves, "Somewhere beneath the stars is something that you alone can do, never rest until you find it" The authors are Dan M Gordon, M D, and Namlyn R. Kong, B A., of the New York Hospital-Cornell University Medical College I move that the report of the Committee be accepted and approved with thanks

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

Section 191

Remarks of New President-Elect

SPEAKER ANDRESEN I want you to meet our new President-Elect, Dr Wertz

The delegates arose and applauded.

SPEAKER ANDRESEN Will Dr Winslow please escort Dr Wertz to the platform to say a few words to us?

Dr Floyd S Winslow escorted Dr Carlton E. Wertz to the platform amid applause.

DR. CARLTON E WERTZ Mr Speaker and fellow members of the House of Delegates, you have had a long tedious session here How you got up this morning to attend this meeting I don't know You

have had lots of talks and lots of speeches so I am not going to bore you with another

We have many difficult things in front of us now, and we will have more for some time to come I just want to say that I want to thank you for the honor you have bestowed upon me I feel very humble, and I pledge to do all in my power to help the progress of medicine in the State of New York.

Section 192

Remarks of New Vice-President

SPEAKER ANDRESEN Will Dr Dan Mellen escort Dr McAskill to the platform.

There was applause as Dr Dan Mellen escorted Dr James E McAskill to the platform.

DR. JAMES E MCASKILL Mr Speaker and gentlemen of the House of Delegates, I wish to express my sincere appreciation for the honor you have conferred upon me I hope I may be worthy of your confidence

This promises to be a very strenuous year for the top officials of our Society It shall be my daily prayer that nothing shall happen to incapacitate our president or president-elect

I hope the Society will have a very successful year I think we might well keep in mind a remark made by our Speaker Monday morning, that our actions will be watched with interest by the public

Thank you!

SPEAKER ANDRESEN Thank you, Dr McAskill!

Section 193 (*See 72, 106, 181*)

Continuation of Report of Reference Committee on Report of Council, Part IX Basic Science Law

SPEAKER ANDRESEN Earlier this morning action was deferred on Dr Gullo's resolution which is under consideration by the Reference Committee on Report of Council, Part IX. Dr Rawls, will you resume the discussion of this subject.

DR. WILLIAM B RAWLS, *New York* This resolution was read yesterday I believe, and there was a short discussion of it, then adjournment was taken, and it was to go on again this morning

I have a short statement, with the permission of the Speaker, that I would like to read because since the meeting yesterday there has been a meeting of this Reference Committee I have discussed this at great length. I think the Committee now has spent six or eight hours on this particular resolution.

Yesterday your Committee recommended that this resolution—and perhaps I should read this resolution again, maybe you have forgotten it

DR. CHARLES GULLO, *Livingston* A point of order

SPEAKER ANDRESEN What is your point of order?

DR. GULLO I have been a member of this Society for a long time I have come here for eleven years, and I don't like to stop this This is a democracy, and a democracy demands debate, so everybody can be heard. I don't like to stop debate on anything, but also there is a parliamentary procedure that is to be followed in a democracy

Yesterday out of courtesy to Dr Rawls and to the opponents of our resolution, you did not hear me get up and say, "I will not have Dr Lochner speak." I welcomed his coming here, and we will see who has the correct information. However, there is a parliamentary procedure to be followed. Debate was was started yesterday, and Dr Knickerbocker spoke in its favor Dr Bernstein spoke against it Dr Moore asked for an adjournment, and that was O K with me, but now we were supposed to come back and vote because yesterday Dr Lochner had to go somewhere and could not be back, and we wanted to hear him But if it had not been that that chain of events developed, the discussion would have continued, the Reference Committee would not have had time to be interviewed again by the opponents Two hours were spent in the Reference Committee originally, at which Dr Lochner, Dr Hannon, Dr Rooney, and other gentlemen came in and spoke against it. Two hours more other than those were spent without anyone being there outside of the Committee, after which the Committee came in with an approval. Therefore, we should consider that report out of courtesy to me I represent Livingston County We are not used to that kind of handling As we were courteous enough to advance no opposition to hearing Dr Lochner, we should now at least consider the report and the recommendation that was on the floor at that time If now the members of the Reference Committee want to talk against it, that is their privilege as Americans

DR. RAWLS May I say a word, gentlemen? Dr Gullo has spoken, but let me assure you there has been nothing changed or nothing suggested on what I said yesterday I only asked permission to read the resolution.

SPEAKER ANDRESEN I don't see that that applies to the rereading of the resolution. I don't think your point of order is well taken on that

DR. RAWLS Resolution

"WHEREAS, the injunctive procedure for the control of illegal practice failed of being enacted at the last session of the Legislature, and

"WHEREAS, illegal practice in New York State constitutes a serious menace to public health, therefore be it

"*Resolved*, that the House of Delegates of the Medical Society of the State of New York recommend that through proper channels it have introduced a bill at the next session of the New York State Legislature which will incorporate the principle of the basic science law, namely, that anyone, without any exemptions whatsoever, who holds himself qualified to treat the sick must take an examination in those sciences which are basic in all schools of practice of the healing art. This applies whether the law provides for licensure or not, unless he is expressly exempted, and be it further

"*Resolved*, that any basic science law granting any exemptions to anyone under any circumstances be actively opposed by this Society"

As I started to say a moment ago, I would like the privilege—and the question has been raised as to whether it is constitutional for a committee to change its opinion after discussion has once been begun on the floor I was going to ask that of the Speaker before Dr Gullo raised his point of order

SPEAKER ANDRESEN In view of the fact that the discussion was deferred, I see no reason why the Committee as well as any of our delegates could not discuss the matter further We are not a jury that is locked up I don't see why the Committee could not meet again as long as they had some extra time

Will anybody dispute that decision?

DR. MOSES KRAKOW, *Bronx* I would suggest that we get both opinions, the one that was arrived at before and the one that was arrived at after the discussion

SPEAKER ANDRESEN Is there any objection to the ruling which I have just made?

DR. JOSEPH A. GEIS, *Essex* The matter before the House is the report of the Committee as reported yesterday, and I believe that is the matter that should be debated The report of the Committee as of yesterday, that is the matter before the House.

SPEAKER ANDRESEN I think that is fair absolutely

DR. GULLO I remove my objection to Dr Rawls' making his further statement The Committee may proceed as far as I am concerned to make what statement they so wish. I reserve the right to speak again

SPEAKER ANDRESEN I think the point that Dr Geis made that we are to consider the report the Committee made yesterday, and then later have any further discussion that may have taken place since then, would be the fair way to look at it, Dr Rawls

DR. RAWLS I would like to state then after further consideration with this Committee over a period of two or three hours without—

SPEAKER ANDRESEN We want to get your recommendation of yesterday first

DR. RAWLS The recommendation yesterday was to approve the motions I read.

SPEAKER ANDRESEN Now go on with any further discussion

DR. RAWLS I would like the privilege then to give you the reasonings of this Committee as it has taken place not only since yesterday when this was read but before that time

Your Reference Committee spent about six hours, listened to various discussions, both pro and con, later discussing this at great length themselves

The Committee had great difficulty in arriving at a conclusion—this is preceding this, this is yesterday—and considered returning this resolution to the House without a recommendation and allowing the House to decide the issue I at no time tried to influence my Committee as I did not have any particular convictions either way, although I had voted against this resolution several times before

In discussing this resolution certain facts seemed apparent to the Committee

1 If a basic science law is passed, a law to license chiropractors and perhaps other cults will inevitably follow

2 That we were opposed to a basic science law containing a grandfather clause, but it did not seem possible that such a law could be passed without a grandfather clause

3 That the advocating of a basic science law which will lead to licensing of chiropractors in reality would be tantamount to a tacit approval of their method of treatment

4 That we thoroughly disliked to be put in the position of seeming to give even tacit approval to this

5 That we had to forget our conscience on this score and consider it on the basis of political expediency, namely, whether it is better to have a basic science law even with a grandfather clause with the hope that it would eventually help to rid this State of cults and quacks and in the end be better for the health of this State, or whether it is wiser to continue our present policy of opposing the chiropractic bill each year even though there may be a very good chance that it will become a law within a few years

Now since yesterday, speaking as an individual without a recommendation from the Committee, this Committee has met and discussed this, and the Committee has been unanimous in feeling that our recommendations yesterday were not sound, and we would like to reverse ourselves

Other Committee members from the floor can speak for themselves

SPEAKER ANDRESEN I think the best way to do about that would be to accept that as a discussion rather than as a change

DR. RAWLS It is not a resolution nor a change I only asked for permission from the Speaker to state the different conclusion the Committee had arrived at after a further discussion

DR. GULLO I probably am not a parliamentarian, and I am certainly not a politician. I am just a country doctor, but it would seem to me that it is presumptive on the part of any reference committee to reconsider after discussion has begun.

SPEAKER ANDRESEN I ruled before that a committee does not differ from an individual in that we cannot gag them and tell them they cannot discuss between the interval of yesterday's and today's discussion, and I am not accepting this as a retraction of yesterday's recommendation. It is simply being accepted as a discussion of the subject that we are now considering

DR. LOUIS H BAUER, *Past President* I believe the matter could be settled satisfactorily from the parliamentary standpoint if the Committee would ask permission to withdraw its report of yesterday and then resubmit whatever they wish to submit now

SPEAKER ANDRESEN Do you wish to do that?

DR. RAWLS I am quite sure that my Committee members would be perfectly willing to withdraw what we submitted yesterday if that is the way to do it I came here asking for advice and permission as to what was the proper way to proceed in this matter

I will move the withdrawal of the motion we presented yesterday

The motion was seconded, and as there was no discussion, it was put to a vote and was carried.

SPEAKER ANDRESEN The Committee's report of yesterday has now been withdrawn, and they will now offer us a substitute recommendation Is that what you have just read?

DR. RAWLS What I would do then is move disapproval of the motion to take the place of our moving of approval yesterday

The motion was seconded

SPEAKER ANDRESEN Do you wish any discussion on disapproving the original motion?

DR. BENJAMIN F GLASSER, *Queens* I cannot see why the original report has to come under consideration at all

SPEAKER ANDRESEN It is just the recommendation that it be approved, which has now been changed to disapproval.

DR. GLASSER The original resolution or report of this Committee has been withdrawn I think the chairman of that Committee should now give us his new resolution or new report.

SPEAKER ANDRESEN He just gave that

DR. GLASSER What was it?

DR. RAWLS Disapproval of the resolution

SPEAKER ANDRESEN Is there any discussion on the recommendation that they disapprove of the original resolution?

DR. GULLO I was waiting for those who wanted to talk against it to talk first They don't want to do so evidently, therefore, I will talk first That just should not be on my time

SPEAKER ANDRESEN It won't be

DR. GULLO I did not say any more, gentlemen, out of respect to this body I am a gentleman if someone else may not think so, but I want to avoid any acrimonious debate in this House. I will now proceed with the discussion of this subject

I was a member of the Cult Committee that served you last year, with Dr Dattelbaum, Dr Simpson, Dr Higgons, and our beloved Dr Mitchell. I was delegated by this committee to collect the material I worked two months at it That was my vacation

We got this material together, and we went over it The eventual result was to recommend an injunction though the basic science law had merit We thought we would put it off You know what happened to the injunction bill

The injunction procedure is no different in effect from a few bees on a rhinoceros' back. Dr Woodward, legal adviser or legal counsel of the American Medical Association, and our deceased Attorney General Ullman—their reports that this committee collected show that the injunction procedure is no good.

We found out as a committee that there are two methods tried out for the control of cults—and not just control but eliminate is what we want to do, and that is what you want to do We don't compromise with a murderer We have had cases in Livingston County, we had one about ten years ago, a man with a blood dyscrasia, who had a headache, and two hours later that man was dead after a chiropractor touched him. Let the editors put that in their newspapers and see what will happen in Albany It happened in New York too, and it is mentioned in a periodical the State Society put out The death of one man, however, is enough to take action on their part to eliminate these people

The first was licensure We know that method was tried, but has failed, as Dr Dattelbaum told you, so we need not discuss it The injunctive procedure has been tried, and that has failed in the State of Iowa. We have got a letter from the State Medical Society to that effect, and each and every member of that committee had a copy of every bit of literature that we received from the state medical societies of each state that has a basic science law, so each and every one of them know what I am talking about and that everything I say is the truth

The report from Iowa says that the injunctive procedure accomplished zero, yet they got some convictions, but they licensed 65 chiropractors every year—until when? Until the basic science law was enacted in 1927 The effect of that law was not instantaneous You could not see its effects until 1939 Its effects did not appear until 1939, and then you had 10, and the next year you had six, and now last year it was five That is the result in all of the states of the Union that have that law

We have a report from Mr Holloway He is the legal counsel of the American Medical Association Some of you may know him He came to Albany, and I said to him, "I want to know how many chiropractors have been licensed since the basic science law was passed, and how many were licensed before it was passed " We found out from each and every one of the state societies that had a basic science law We found out how many had been licensed prior to the advent of the law, the average per year over a period of five years just immediately preceding the law In the State of Minnesota it was 42, in Iowa it was 65, in Wisconsin it was 41 We took five states and calculated the average of that over a period of years It runs to 4,001 chiropractors that would have been licensed in those states if they had not had a basic science law That is only in five states, mind you

What happened? What happened in the eighteen states that had the law? What happened since the law was enacted did Mr Holloway say, Dr Dattelbaum? Just one thing He said that only 125 had been able to pass the basic science law since 1925

What does it mean? They don't even dare try an examination in the basic science law

And what does that mean? If they have not got a qualifying certificate they cannot even approach the door to the examining board so they cannot get a license

But that is not the argument In the State of New York we are not talking about the licensing of chiropractors In the State of New York we are talking about the destruction of the chiropractors, the elimination of murderers

Your resolution reads expressly that such a law should be introduced—and every member of the Council in this Society knows that several years ago at the expense of the Livingston County Medical Society such a law was drawn up, which is a condensation of the Minnesota law and that of Rhode Island, eliminating some of the objectionable features, so that we have the ideal law

In this law it provides specifically that it applies to those professions now licensed and any other system of healing that may be licensed in the future If licensing per se of these illegal practitioners is to take place it will not take place because of you or me—yes, it might because of our neglect—but it will take place because this particular kind of cultist will have to introduce a bill asking for its licensure, and it is up to us to defeat them when they do I think we have the strength to do that, though some say we don't have it, but I am not concerned if we don't have it, I took the oath to be a doctor and not a politician If we have the strength to prevent the licensure of these men, yes, we will have our cake and we will be able to eat it too, for we will have the basic science law and they still will remain unlicensed Then you will have something with teeth in it that will knock every man of them in this State, so there won't be any more in the State of New York of all cultists

Why? Because the law as we have suggested it calls for something—something that no other law has It will provide the teeth that Minnesota has for the money that goes to the Basic Science Board, which is composed of men who teach in our medical schools—and that is the way the law was made in every state—plus—

SPEAKER ANDRESEN I am sorry to interrupt, but your time is up

DR. GULLO Can I have thirty seconds more?

SPEAKER ANDRESEN Proceed

DR. GULLO Plus the necessary enforcement agency Gentlemen, if you do this, you are just going to take the chiropractor out of the picture for once because then the words of J B Palmer, the daddy of all cultists, will come true when he said that the basic science law is the buckshot that sounds the death knell of all cultists

I thank you

SPEAKER ANDRESEN I want to thank Dr Gullo for again as he has done so many times before, giving us this explanation of the many advantages inherent in the basic science law

Is there any further discussion?

DR. SAMUEL Z FREEDMAN, *New York* As chairman of the Committee on the Illegal Practice of Medicine in the County of New York, I have become very much interested in trying to find out what are the practical realities that now exist and what possible solutions there may be, if any

To do so, at a meeting last November we invited to one of our regular meetings the representatives of all the departments of the State and City which may have to do with the arrest and prosecution of the illegal practitioners of medicine Of course, in the City of New York we have a particular problem in that we have so many of these chiropractors particularly, and they are listed in the telephone book as such, and they practice openly

The individual who gave us, in my opinion, the most practical information and the most practical advice was the Assistant Attorney General, Mr Sidney Tartikoff, whose job it is to prosecute the illegal practitioners of medicine, among other things Mr Malenny, who is the legal representative of the State Education Department in New York City, and whose job corresponds, shall we say, to that of the policeman in that it is to investigate complaints and gather evidence and make the arrest, so to speak, appeared also before us Then we had representatives of the District Attorney's office and others, none of whom have anything to do apparently with the subject under discussion

Mr Tartikoff at that time was very optimistic about the injunction bill which was being studied by the Wicks Commission, and he made the categorical statement to us that were that bill passed he could put out of existence all of the chiropractors in the State of New York within twenty-four hours That was a categorical statement made by an attorney who we believe watches every word he says, and that is what he said to us

Unfortunately, as has happened before and it happened now, not only did the injunction bill not pass but the author of that injunction bill I am given to understand voted for the chiropractic bill I mention this because of the theme I would like to develop The practical aspect is that the Senate of this State passed the chiropractic measure, but through a parliamentary maneuver two individuals I am told were instructed not to appear so that instead of them receiving 29 votes they received 27 or 26, so that it did not pass, but it did receive a majority of the senators present and voting

As practical individuals, I would like to ask this question In how many states of the Union are the chiropractors licensed now? I would like to get that answer

CHORUS Forty-four

DR. FREEDMAN Does anybody in this room have any information as to how many convictions there have been of illegal practitioners, chiropractors, in those states where they have the law?

DR. GULLO I can answer that

DR. FREEDMAN May I have that answer, with the indulgence of the Speaker?

DR. GULLO Will you permit that?

SPEAKER ANDRESEN Yes, you can give that information if you have it

DR. GULLO Our committee found from a statement from the Minnesota State Medical Society that since the enactment of the law there were over 800 investigations, 251 prosecutions and 87 per cent convictions

DR. FREEDMAN That is interesting to me The statement is made that if that law were passed you would kill the chiropractors off completely, but the fact of the matter is that in the very state which is held up as the ideal for us to follow in spite of the passage of this law more than 800 investigations were made and 251 prosecutions were carried out with a conviction rate of 87 per cent

DR. FREDERICK S WETHERELL, *Onondaga* Before you jump at a conclusion, remember that those convictions—

SPEAKER ANDRESEN You can discuss just as soon as Dr Freedman finishes He has another half minute

DR. WETHERELL But I want him to understand that these were not all chiropractors who were prosecuted Some of those were medical men, abortionists, and other cultists

DR. FREEDMAN That is not the question I asked I asked how many so-called chiropractors were being arrested, investigated, and convicted. I am not interested in the other because that can be thrown out immediately

DR. GULLO A point of correction, this is important They were not chiropractors that were prosecuted that were licensed there They were the naturopaths They were the men who were illegally practicing at the time the law was enacted and continued to practice illegally Chiropractors at that time were licensed there so you could not prosecute them if they had a license, but you prosecuted each and every one that did not have a basic science law certificate, and that is what you would do here. Your chiropractors in New York are like your naturopaths there You can prosecute them.

DR. FREEDMAN That is not the question I asked.

DR. GULLO You asked how many illegal practitioners were prosecuted.

DR. FREEDMAN I wanted to know if you had the information It is quite possible there is not any such information How many individuals were investigated, prosecuted, and convicted for the illegal practice of chiropractic in the State of Minnesota.

DR. GULLO None

DR. WETHERELL That is the same kind of a question that was asked in a forum of Dr Fishbein's. It is loaded

DR. FREEDMAN If anybody is loaded, I will plead guilty to being loaded with the facts, and others may be loaded with some hot air We are trying to get facts here, and we are not trying to speak before this august body with loaded figures We are trying to get information upon which to make a very serious decision

SPEAKER ANDRESEN I am sorry, your time is up

DR. FREEDMAN They are taking up part of my time I wanted to say that inasmuch as I was convinced at one time that the basic science law might do the job, after listening to the greatest proponent of it, I now have my very serious doubts

SPEAKER ANDRESEN Do you want to discuss it, Dr Wetherell?

DR. WETHERELL Not right now

SPEAKER ANDRESEN You were on your feet just now

DR. WETHERELL I merely wanted to say this is no time to ask for statistics without properly notifying us in advance. We did not know that question was coming up You might have had the answer to it, if you had let us know I said it was a poor time to put it now, with all due respect to Dr Freedman, who never has any hot air

DR. GULLO I have the answer They do not prosecute these men for practicing chiropractic

SPEAKER ANDRESEN You have mentioned that before You answered it, and we all heard it

DR GULLO It was for the practice of healing that they were prosecuted for, and that is all we do know

DR. FELIX OTTAVIANO, *Madison* Gentlemen, I am an instructed delegate here I have been instructed by my constituents back home We are all country doctors, you know but they have instructed me to vote positively should this question come up We decided to so vote there some two or three years ago after investigating this problem, and in this discussion I hope I may be able to keep on the question which is the disapproving of the report of the Committee

I must go back to my constituents with some reason for the defeat of this particular thing I must be able to give intelligent answers why such action was taken, because those boys are pretty sharp I don't know of any I must be able to go back with

something that will say to them that the seven chiropractors who are practicing medicine in the City of Oneida, a city of 10,000 people, will be stopped I don't have any such facts now I should be able to go back and say that the New York State Medical Society has positively worked out this particular scheme In the some five years that I have heard this discussed I have heard no such scheme I remember the time two years ago at the auditorium when the vote was so close after a due and intelligent exposition of this matter, Mr Speaker, that as you may remember we had to take two or three standing votes It was so close that some people must have been convinced by open debate that the thing had some merit in it After that we decided that we would appoint a cult committee Ultimately that cult committee presented facts at the last meeting of the House, and at that last meeting we decided that if the injunction law did not work we would come back and discuss the basic science law Well, we came back and discussed it, not very openly I should say, or that is my impression.

My impression, gentlemen, is simply this—and I am going to be perfectly frank because I want to go back to my county society with some frank statements—we sat here today and listened to a committee which reversed its decision That is perfectly democratic I would like to be certain, however, that that reversal was not unduly influenced. Whether it was or was not does not make any difference, but should this thing be disapproved—and it seems it will be—I should like to warn the House, Mr Speaker, that we want some positive action

We were told that the Senate almost passed the chiropractic bill We were a bit upset at that news, and I would like to point out something now if I may—it will only take another thirty seconds—and this ought to be broadcast as well throughout the nation. We sit back and listen to a bunch of politicians tell us what to do, whose minds are supposedly far above ours, when ours are so far above theirs that it is not even funny They tell us that we cannot do anything about social legislation. Well, we are going to do something about it in Madison County

SPEAKER ANDRESEN Do you wish to answer?

DR. RAWLS May I have the privilege of answering the remarks about the Committee being unduly influenced.

I would like to state to this House that following our presentation here yesterday we had not seen or had anyone before the Committee, that our Committee had met outside here at intervals and talked it over with each other The conclusion to reverse its decision was made before anybody appeared befor the Committee Dr Gullo appeared this morning, but our decision had by then already been arrived at, it was arrived before anybody appeared before us We have been disturbed about it, too It took a little bit of courage for us to come before you and say we were wrong and get up and say, "Gentlemen, we were wrong yesterday We want to correct a wrong decision" However, since we were wrong, we felt that is the way to do it, and that was how that decision was arrived at

DR. REGINALD A. HIGGONS, *Westchester* Gentlemen I rise with fear and trepidation and also with a sense of foregone conclusions, but I think that it is only fair to make one statement which I believe to be true I worked last year on the Committee of Cults We worked all year and had many meetings, and we heard many experts on both sides On the eve preceding the meeting of the House of Delegates the members of that committee met with one exception After considerable discussion a report was written, which was in complete approval of the principle of the basic science law That report was signed by four members The following morning, after the House had convened, we were urged to return to the session by our chairman The upshot of that return was the action which you gentlemen heard

As a democratic citizen of this country I cannot help feeling that the issue at stake here is no longer the basic science law but it is the issue as to whether or not this House does act democratically

DR. BENJAMIN BERNSTEIN, *Kings* I have two mortgages on the future of the practice of medicine One son is studying to be a doctor and the other will be one some day rather soon I am interested in the practice of medicine If we could by some action of a basic science law stop the chiropractors and cultists from practicing medicine, I might also ask for a basic science law Also the radio stations that sell Dolsone on the air, who are the naturopaths in reverse, those people also practice medicine now No law, basic science or otherwise, will stop a man from trying to sell his neighbor over the radio or by word of mouth some method of treating a particular ill. The men who propose basic science admit that this is aimed only at the chiropractors, and apparently we are taking a defeatist attitude, saying that the chiropractic law must come and, therefore, we are going to try to stop it by a basic science law On the contrary, gentlemen, the chiropractic law will come if you are going to take it lying down, and then you will have additional practitioners of a so-called healing art who are really a menace to the public health

It is funny to think we are here talking about a basic science law to stop a cult. Only by education, only, as I said yesterday, by teaching the legislators and by teaching your patients and by teaching those who are in control of radio facilities one thing—and one thing only—that only a doctor knows how to practice medicine, that only a doctor knows how to care for people who are ill, will we get anywhere Unless we can teach that, no basic science law is worth the paper it is written on

SPEAKER ANDRESEN Is there any further discussion?

DR. JAMES F ROONEY I would like to ask the privilege of the floor so that we might hear the secretary of the State Board of Medical Examiners of New York. He will be brief, and it will be explicit

DR. SAMUEL B BURK, *New York* I second that

There being no discussion, the motion was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN Dr Lochner, will you take the rostrum?

DR. JACOB LOCHNER Mr Speaker and members of the House of Delegates of the Medical Society of the State of New York, in the first place I have no personal axe to grind in this matter at all. I did not approach Dr Rawls or the Committee or say a word in opposition to this resolution with any member of the Committee I am not a politician. This is not a political appointment, and I am not a lobbyist

I believe you men would be interested in knowing how the basic science law works in other states, information that comes from doctors and not from basic science board representatives

The members of the New York State Board of Medical Examiners have given this matter considerable thought since the very first year I held this position, and when this matter came up there, after studying the basic science laws in other states, and finding out how they worked, it is their unanimous opinion that no basic science law will under any circumstance control this evil of chiropractic

The Assistant Attorney General representing our department is a very smart lawyer He is convinced that he can stop them in twenty-four hours with an injunction bill

Senator Wicks came out in no uncertain terms, based on the advice of his counsel, Mr Eagan, and said too that the injunction bill was the only thing that would stop them

Three professions now have the injunction law, and it is up to the State Medical Society in my personal and humble opinion to work for the injunction bill, because with that bill you will stop them

You might also be interested in knowing something about the basic science law There are 19 basic science boards Only nine of the basic science boards endorse the certificate of the National Board Only two basic science boards endorse examinations given in the basic science subjects by other state boards of medical examiners Only four basic science boards endorse the basic science examinations given by other basic science boards In the State of Washington the Board of Medical Examiners endorses the certificate of the National Board, the Basic Science Board in Washington will not endorse it. I think three basic science boards endorse the basic science certificates given by their own state board of medical examiners I don't know whether any of you have seen a diploma issued to a chiropractor It reads, "John Jones, Doctor of Chiropractic, Doctor of Public Health, Doctor of Naturopathy, Doctor of Physiotherapy"—he gets four degrees for the price of one

In talking with the State Board of Medical Examiners in the basic science states I have been told that these chiropractors don't even bother to take the basic science examination They know they cannot pass it, so they simply practice under the guise of naturopathy, drugless therapy, or physiotherapy They tell me they have as many illegal practitioners, chiropractors, in their states today as New York State, the only difference is they don't have a sign out "Chiropractor"

I think that is all the information I can give you unless there are some questions (*Applause*)

SPEAKER ANDRESEN While we have Dr Lochner here, I would like to know if anybody would like to ask him any questions

DR. A W MARTIN MARINO, *Kings* This is not a question, but I would like to make some remarks

SPEAKER ANDRESEN Shall we dispose of the questions, if there are any, first?

DR. MARINO Yes

SPEAKER ANDRESEN Are there any questions anyone would like to ask Dr Lochner?

DR. HIGGONS How many states in these United States will now accept reciprocity with our own medical examining board?

DR. LOCHNER At least thirty states will endorse the New York State medical license, and there are two basic science boards, Iowa and one other, that will endorse the basic science given in our own medical licensing examination

SPEAKER ANDRESEN Are there any other questions?

There was no response

SPEAKER ANDRESEN If there are no further questions, Dr Marino, you wish to make a few remarks?

DR. MARINO Mr Speaker and members of the House, there are two comments I would like to make First, I wonder if Dr Bernstein would allow to have stricken from the record certain of his remarks regarding chiropractors who have passed a two-year basic science examination, or whatever it is, and whether he would not prefer to have substituted rather they would be additional members of a so-called healing art who would be a menace to public health. Will you accept that?

DR. BERNSTEIN Yes

DR. MARINO The other remark I would like to make is this If that is agreeable—

DR. BERNSTEIN Yes

SPEAKER ANDRESEN If he accepts that correction, I think we will have to vote that directive motion

CHORUS No

SPEAKER ANDRESEN You all accept it?

CHORUS Yes

DR. MARINO The other remark I would like to make is this That as a member of the Committee on Legislation I was one of the members who held out against the basic science law from the start, and no one, including the chairman of the committee, used any pressure upon me as a member of that committee

SPEAKER ANDRESEN Is there any other discussion?

DR EZRA A. WOLFF, *Queens* Mr Chairman and fellow delegates, our fellow delegate from upstate wants some facts. I think Dr Lochner has provided us with some very significant facts On the other hand, I think that facts should be supplied by the proponents of a given proposition I think that the burden of proof should be on them. So far they have supplied us with none that carry too much weight We have no statement to the effect that the basic science laws have prevented the licensing of chiropractors We have had no statement that basic science laws have prevented or even limited in effective measure the illegal practice of medicine, but in general it seems to me that we become so involved in maneuvers and procedural mechanisms we sort of lose sight of basic fundamentals

Chiropractic is unsound, unscientific quackery Not one of us here believes in it If we approve of any clause, regardless of the purpose it may serve, which will give one chiropractor the standing of a State-licensed practitioner we are being hypocritical in the extreme Let us not be expedient Let us just be honest

SPEAKER ANDRESEN Is there any further discussion?

DR. WETHERELL May I ask for the privilege of the floor for Dr Hannon?

SPEAKER ANDRESEN Will you come up, Dr Hannon?

Dr Wetherell asks for the privilege of the floor for Dr Hannon Is that seconded?

The motion was seconded, and as there was no discussion, it was put to a vote, and was unanimously carried.

SPEAKER ANDRESEN Dr Hannon is our executive officer and our representative in Albany, as you all know

DR. ROBERT R. HANNON Gentlemen, as executive officer, and being responsible for any legislation's introduction that results from your action here today, I would prefer not to take any sides on this question. I will answer any questions you would like to ask me, but I do not think it would be wise for me to stand here on one side of the question or the other I will endeavor to carry through as a servant of the Society your actions, whatever you think.

SPEAKER ANDRESEN Do you want to answer any questions?

DR. HANNON Yes

SPEAKER ANDRESEN Are there any questions anybody wants to ask of Dr Hannon now that he is here?

DR. HOMER J KNICKERBOCKER, *Ontario* Is it true that the vote in the Senate on the Chiropractic Bill was by order of Governor Dewey?

DR. HANNON So far as I know, it was not, as a matter of fact, I do not think Governor Dewey was in favor of the action of the Senate

SPEAKER ANDRESEN Any other questions?

DR. JOSEPH A GEIS, *Essex* I would like to ask Dr Hannon whether there is any improvement in a basic science law over our present law, which gives us an examination in basic science, and carefully avoids any question of therapeutics?

DR. HANNON I don't know that I can answer that What is the point of your question?

SPEAKER ANDRESEN Will you state it again, Dr Geis? Dr Hannon does not quite understand it

DR. GEIS I would like to ask in what way a basic science law would be an improvement over our present law which gives us an examination in basic sciences and also carefully avoids any question of an examination in therapeutics, so that there is no reason why chiropractors cannot take the examination if they put in the required number of hours Osteopaths do

DR. WETHERELL Why not turn that question around What advantages our present law has as against the basic science law? I think he would rather answer it that way

DR. GEIS I will turn the question around then.

SPEAKER ANDRESEN Answer it either way

DR HANNON Well, the purpose of a basic science law was to be, in the states that passed it, a protection to the public so that everyone that had the privilege of holding themselves out as practitioners of medicine or the healing art would have a fundamental basic science education. It was not for the prosecution of illegal practice

I think that we have gone on the wrong direction in our basic science idea and discussions here The basic science law was to protect the public so that the people that were permitted to practice the healing art must have passed an examination in the basic sciences sufficiently high to make it safe for them to practice on the public

That was put through in the states that had multiple examining boards Many of those examining boards were just a farce, a person wrote his name, and he was certified It was those examining boards in the multiple various cults as well as the various schools of the practice of medicine that brought about the passage of a basic science law They were deemed as not being of sufficient protection to the public That was the purpose of the basic science examination in those states

Very early, shortly after 1900, New York State had a unified examination Everybody must take the same examination In that way the public in New York State is protected, and in that way New York State does not need a basic science law for the protection of the public The endeavor to pass a basic science law in this State is to use it for the secondary or third purpose, that is, prosecution of illegal practice That is not the purpose of the basic science law It has been used to advantage in certain states for that purpose, but there is no guarantee that it can be used to that same advantage in New York State We cannot get a conviction before a jury now if a person is shown to practice medicine unlawfully because of the sympathy of the jury There is no reason to believe that we can get a conviction from that same jury because he does not have a certificate to practice the healing art

While we are talking about it, I want to call to your attention that in this resolution you bring out the point that there are no exceptions, that a person must have a basic science certificate That would mean, as I understand your resolution, that if you drew that up in the form of a law, every practicing physician must take the basic science examination and get that certificate even though you are licensed at the present time If, on the other hand, you turn around and put a grandfather clause in it for those that are practicing, then you open the door for other grandfather clauses for other groups

I want to say, too, that in recent years the chiropractors have gotten to the point, and they are so well organized, that in states that have passed basic science laws they have been so amended when introduced as to make them worthless, and we can expect that here Don't expect that the bill you introduce will go through the Legislature without amendments, and you may have to fight the very bill that you put in

DR. GEIS Thank you for calling on me, Mr Speaker I had four or five other questions here that I had written down for Dr Hannon, but he has answered them all in advance

DR. GULLO May I ask Dr Hannon a few questions? Is it true, Dr Hannon, that there are in some of these states that have the law a provision in it that any man who has a certificate in a profession of healing, and is licensed and can show the equivalent qualifications as contained in the basic science law, is automatically given a basic science certificate, and therefore need not appear before the basic science board? Is that correct of Iowa?

DR. HANNON I am sure you can put that in your bill that you would introduce in New York, and that is what I am speaking about as a grandfather clause If you start putting grandfather clauses of that nature in your bill, you open it up to other amendments along the same line

DR. GULLO May I ask another question? Is it not true that a grandfather clause means that at the time that a basic science law is passed an illegal cult like the chiropractors in the State would turn in a concurrent bill separate from the basic science law which would ask that they be licensed automatically and be expressly exempted from taking the basic science law only for that time? That is what the grandfather clause refers to and not what you said before. I would like to correct that because it is an important thing Am I not correct? I am sure that I am.

DR. HANNON The term "grandfather clause" is applied to many exceptions of all kinds It could be applied to what I say and to what you say also

There were calls for the question

DR. WETHERELL Mr Speaker and members of the House, there has been confusion added to confusion I hope I may clarify one thing, and that is what are we after Are we medical practitioners in the State of New York of the opinion that eventually, be it ever so ideal, there will be no more cultists of any description practicing in our fair Empire State? I am not going to orate but that is the way I feel about it

My reason for going into this matter of the basic science law in the beginning was to investigate the possibility of getting into the laws of the State of New York some measure which would gradually eliminate, not this year, nor even next year, but it was hoped that it might by the time my grandson grows up, cultists So I have studied this, and I have studied it carefully, and been fair in my analysis. I have spoken with men in other states As I have said before this House previously, there is a man who is highly respected in the profession, whose respect

I have and he has mine too, and that is Dr Adson, who is head of the department of neurology at the Mayo Clinic, and who has spent a great many days and weeks of his life in the service of the profession of Minnesota—and no one will gainsay that He has been an adviser and has told me many of the things that I know about basic science laws and the prosecution of cultists

Let us be practical Laws are enacted by our representatives in Albany Yesterday noon I heard for the first time that Senator Hughes of Onondaga County, Syracuse, New York, voted for the chiropractic bill This he did despite the fact that our delegates and our legislative committee met with Senator Hughes and with the assemblymen at the University Club at lunch, where we talked it out with them Their reaction was this—and this is what he told me yesterday—"I voted for it because I feel that we should begin to have some control over them"

I said, "You asked and we explained to you that with a basic science law we would have the beginning of control Do you believe, Senator and Assemblymen, that anyone should be allowed to touch a sick human being who does not even know as much as a second year medical student?"

"No, I don't," he said.

Brees said the same thing in a hearing in Albany when I asked him about that

To get back, I said, "Senator Hughes and Assemblymen, why don't you give us something like that to bite into to start off with?"

"Fine," they said.

This is not intended to just stop the chiropractors tomorrow We are not only talking about chiropractors, we are talking about all cultists That is the idea I am told behind the basic science law, and we could pass a basic science law in New York which is just a bit better and which would recognize the National Board Basic Science Examination There is nothing to stop us from doing that Unless we start though we will never be able to draw up such a law

That would give them a chance at least to do something about arresting these illegal practitioners because the basic science board has its own policemen. A basic science certificate in an office—and I am not condoning this practice at all—acts the same as a driver's license Anyone who does not have it displayed is guilty of a misdemeanor A practitioner who is seeing one, two, or three patients, no matter who he is, in his office, does not have to be shown to be treating sick people The policeman walks in and says, "Do you have a basic science certificate?" If he says, "No, ' the reply is, "Then see the judge" After once, twice, three, four, or five times he finally lands in jail That is what happens It is the constant rapping at them It is not something we are going to stop today or tomorrow Of course we have got to fight, but do we want to fight? Do we have the health of the people at heart, and do we want to help the people of the State of New York out of this dilemma, which is the flooding of cultists into our State, namely, because we have no control? I don't want to have a thing happen like nearly happened two weeks ago that a chiropractic bill nearly did go through

Gentlemen, I will be through in just two minutes, though it may be two minutes and sixteen seconds This is a report of the Committee of the Council which studied this subject—

SPEAKER ANDRESEN You have exceeded your time.

DR WETHERELL I would ask if I may have three minutes to say what this committee told us, consisting of Drs Aranow, Mott, Simpson, Holcomb, and Hannon May I read it because this is the important thing?

SPEAKER ANDRESEN I am powerless to grant it. It requires the permission of the House

CHORUS Question

VOICE Move it

DR WETHERELL I move it be granted

The motion was seconded, and as there was no discussion it was put to a vote, and was carried.

SPEAKER ANDRESEN I think the "ayes" have it, and you have three minutes more

DR WETHERELL The committee, consisting of Drs Aranow, Mott, Simpson, Holcomb, and Hannon, studied it carefully, and had this to say

> "It has been found in some states, however, that this law setting up the requirement for a basic science certificate could be used to advantage in eliminating illegal practitioners It was found that convictions could be obtained under the penal code if the illegal practitioner had not complied with the law requiring a basic science certificate"

And before the conclusion of the last paragraph—and I am not taking it from its context—the report says

> "Its value might well be proved as an effective rearguard action, if passed concurrently with or immediately following a chiropractic licensing act"

which nearly happened two weeks ago—

> "If such an unfortunate event should come to pass, the experience of other states indicates that basic science requirements are an effective method of controlling the flood of newly arrived cultists'

For heaven's sake how in the world is Dr Hannon going to call from Albany, New York, and everywhere else, and say, "We must act quick and introduce a basic science law because otherwise they are going to pass a chiropractic law," or "They are going to pass a chiropractic law, so we will have to introduce a basic science law first"? That is what I am afraid of Let us say at least that we favor this resolution and let us draw up a basic science law and be ready, because this report says, "After it is passed, then we shall draw up one" That will be after their own chiropractic board has been set up with their own board examiners in the basic sciences

Why not let us say now, very well, and have the legislative committee or a special committee draw up a good basic science law with the help of Dr Hannon and with the help of our representatives, and then we are ready at least? For goodness sake get it in before next year We will surely have a chiropractic licensing act then

DR. ROONEY I move the previous question to limit debate

The motion was seconded, and as there was no discussion, it was put to a vote, and was carried

SPEAKER ANDRESEN We will now put the motion to a vote The recommendation of your Reference Committee is to disapprove the resolution of Dr Gullo, and we are now voting on the approval of the recommendation of the Reference Committee which means the disapproval of Dr Gullo's original motion Do you all understand what you are voting for?

CHORUS No

DR. WOLFF If I vote yes, does that mean I am disapproving the basic science law?

SPEAKER ANDRESEN Yes A vote of yes means

disapproval of Dr Gullo's resolution which favored the basic science law with certain restrictions Does everybody understand the question now?

CHORUS Yes

The motion was put to a vote, and was carried

DR. RAWLS I would like to thank the members of my Committee for the time they have spent and for the work they have done here

Section 194

Remarks of Dr Morris Fishbein

SPEAKER ANDRESEN We have an important visitor Those who are fortunate to have television have lately seen him. I will ask Dr Bauer to escort Dr Fishbein to the rostrum

Dr Louis H. Bauer escorted Dr Morris Fishbein to the rostrum amid applause

DR. MORRIS FISHBEIN Mr Speaker and members of the House of Delegates, I just told Dr Bauer that I had thought previously that a certain western state possessed most of the orators of American medicine, but I am convinced now that New York has them licked three to one The oratory on the subject of attacks on cultists was extremely interesting to me because I have spent some thirty-five years on that particular problem with a certain amount of success

Quite recently the issue of chiropractic has arisen again more strongly than previously, the answer being that the Federal government through the G I. Bill of Rights now pays for the complete education of some thousands of chiropractors In the Davenport School there are at the present time 2,500 students, almost the largest enrolment they have ever had, all of them with their tuition and maintenance paid by the United States government

In Iowa they have a basic science law, and in the most recent examination in Iowa some hundreds of chiropractors took the basic science examination, and I have reliable reports from people who were present that they sat so closely together in the crowded accommodations available for conducting the examination that it turned out to be relatively a farce In fact, I was reminded of the story of the football player who was trying to make good, and he took a special examination along with another student When the papers came in, one of the examiners had flunked the football player and the question was raised as to why "Well," he said, "the first eight questions that he answered were absolutely right and were exactly the same as those of the man who sat next to him, but the ninth answer was different"

"What was the ninth answer?"

"The man who sat next to him wrote, 'don't know,' and your man wrote, 'I don't know either'" (*Laughter*) Which merely means that no examination is any better than the administration, and no basic science law is any better than the method by which it is administered and the extent to which those who are charged with administrations of the law take care of their duty

I propose to talk tonight on medical science—not on chiropractic, thank God—and I am convinced personally that what we need in the United States is even more education of the people of the United States as to just what are the differences between the scientific practice of medicine and the practice of a variety of cultists

I am quite sure that we will never eliminate cultism entirely As I have said before publicly, there is rising now an illegal practice of medicine under the guise of psychologic counseling There are 25,000 people in the United States today practicing psychologic counseling, of whom only 3,000 are qualified These people diagnose and treat disease, and only in a very few states are there anything even resembling laws that can control them

Incidentally, all of you are familiar with the fiasco that took place in the State of Tennessee when a naturopathic bill went through A special school was opened in which they educated 2,500 of them in a year and a half They all took the examination in Tennessee They were paid for it by the United States government, which states that any qualified school in the state can receive funds under the G I Bill of Rights for education, so you see the problem is so broad and so tremendous that we must rest finally on that clause in the Principles of Ethics of the American Medical Association which says that a physician must calmly and fiercely expose all attempts to introduce cultism and low-grade practice in the care of the sick. The battle is a never-ending one, but we must carry it on

Thanks very much!

Section 195 (*See 175*)

Report of Reference Committee on Report of Planning Committee Annual Per Capita Assessment

SPEAKER ANDRESEN We have two more reference committees to report We first will hear from Dr D'Angelo's Reference Committee on Report of the Planning Committee for Medical Policies.

DR. THOMAS M. D'ANGELO, *Queens* Your Reference Committee is reporting on the resolution introduced by Dr Stephen R. Monteith, from Rockland County, subject "Annual Per Capita Assessment," and I will read his resolution

> "*Be It Hereby Resolved* by this House of Delegates that the annual per capita assessment on each component county society for the incoming fiscal year shall be $25"

These are our comments The need for increased expenditures for public relations and legislation is self-evident. Unless we spend more money for our public relations and legislative campaign, we may not achieve the goal

The individuals who appeared before our Committee expressed themselves as individuals and as representatives of their respective county societies They all agreed that an increase in dues is desirable, but they thought that this was not the opportune time to do this

The Board of Trustees and Council have not asked for this increase The American Medical Association has not received the support in this State which we anticipated Our own War Memorial Fund is still far from complete. Numerous county societies have recently raised their dues These are some of the arguments against this increase at this time

The Committee, however, is mindful of the fact that this is not the time to practice economy in public relations and legislative matters It feels that this House of Delegates should express an opinion on this point and should memorialize the Council and Trustees to appropriate all necessary funds for this campaign, even if a deficit develops at the end of the year Then we can raise our dues to take care of this deficit We, therefore, introduce a substitute resolution

> "WHEREAS, an increased appropriation for the public relations and legislative campaign is at present desirable, and
>
> "WHEREAS, the Council and Board of Trustees have been most diligent in guarding the funds of our Society so as to avoid a deficit in our budget therefore be it

"*Resolved*, that this House of Delegates memorialize the Council and the Board of Trustees to appropriate all necessary funds for a successful public relations and legislative campaign, even if a deficit should develop at the end of the year"

I move the adoption of this report

The motion was seconded

SPEAKER ANDRESEN Is there any discussion?

DR. JAMES F ROONEY, *Trustee* I did not appear before this Committee I think it is rather unwise and furthermore that it is unnecessary to take any action in relation to raising the dues It was proposed purely in order to secure enough money to pay approximately $80,000 a year to establish the office of an executive secretary for each district branch That was the primary purpose for which this motion was made

So far as concerns the expenditures of money for this campaign that we are carrying on, the Board of Trustees has already acted in regard to it The Board of Trustees has already acted, and will continue to act without the necessity of raising any more money By the action of the House this proposition for eight additional executive officers was not adopted, so we will not need money for that purpose this year, and we will probably be able to carry on the additional activities in all probability without any gross deficit and without having to touch our capital investment funds I have given you the situation, and you can vote on it to suit your own judgment

DR. HOMER J KNICKERBOCKER, *Ontario* As usual, Rooney steels the thunder It has been suggested that the district branches organize and finance their own areas This will work very nicely where they are already organized, but to a large extent in this State they are not organized. It will come too little and too late There is money in the treasury which can be used, and, as Dr Rooney has said, will be used That is encouraging We can use these new field officers to help us in this matter if permission is given There is great need for enlightening the rank and file of the county societies as to what the State Society should mean to them Until the rank and file are enlightened you cannot expect anything but apathy Unless you can have the active support of the real grass roots, any proposition we may initiate will fail Ignorance is why the A M A assessment and the War Memorial Fund are light The men don't understand what it is for I was shocked a few minutes ago when even in this House of Delegates I heard a man say when Dr Hannon was called upon to speak, "Who is Dr Hannon?" Now if the men in this House of Delegates don't know who Dr Hannon is, what about the rank and file?

We are in a period of crisis We must not fail We cannot get something for nothing You cannot operate a successful program on a shoestring We must have adequate funds regardless of where they come from If you want to win, give it your support, if you want to fail, don't

DR D'ANGELO I would like to answer Dr Rooney in this respect The Council and the Board of Trustees have always felt that they must live within their budget, and we have commended and applauded them for doing so We think that at times they would have expanded certain of their activities in the legislative and public relations field if they had had more funds to do so However, they were reluctant to expend these funds if they had to show a deficit at the end of the year We are now asking this House to ask the Board of Trustees and the Council to go ahead and do just that thing if they feel it is necessary, and if there be a deficit this House then will be glad, and I am sure the members of the component county societies will be glad, to make up that deficit

DR. SAMUEL B BURK, *New York* I may perhaps be out of order, and if I am I hope you will rule that way This recommendation has strings attached to it I am quite satisfied that our Board of Trustees and our Council are sufficiently cognizant of the situation and will take whatever steps are necessary, and under those circumstances I would move that this matter be referred to the Council for further action

DR. WILLIAM H ROSS, *Trustee* I second that motion.

SPEAKER ANDRESEN Is there any discussion of the motion to refer?

DR. D'ANGELO What Dr Burk is asking is exactly the same as I am asking He is referring this matter to the Council for study This is being referred to the Council, of course, for study If they see fit to appropriate more money than the budgetary allowance, they can go ahead and do it If they have enough money in their budget to carry on all the necessary public relations and legislative work they will certainly not go in the red Dr Burk's motion and mine are exactly the same, and I think that the Speaker may very well rule that the original motion should take precedence

SPEAKER ANDRESEN Will you withdraw your motion?

DR. BURK Under those circumstances, yes, because I thought there were strings attached to it

DR. ROSS I will withdraw my second.

DR GULLO What Dr Rooney said that it is not necessary to raise this money because it would not be used for the running of the district branches because yesterday's resolution that you passed said that the district branches were to be operated and paid for by the members of those district branches is true However, as it is necessary to have money, and because of the apathy that may be present to start off with, while each district branch who wishes to remain independent to operate as a district branch should be permitted to do so, in fact, I believe it would resent dictation from our New York office, it would be wise to have this money as a grant-in-aid, or whatever you want to call it, to these district branches I move a substitute motion to the effect that the State Society give financial aid to these groups to start these district branches going, and to continue to do that if it is found necessary to do it in the future, but that the district branches are to operate as independent entities as they are today

SPEAKER ANDRESEN Dr Gullo, the House of Delegates yesterday passed a resolution which practically covers what you say, isn't that so?

DR. ROONEY A point of order—

SPEAKER ANDRESEN So I would rule that motion out of order

The question was called, and the motion was put to a vote, and was carried

Section 196 (See 148)

Report of Reference Committee on Report of Council, Part I General Practitioner—Section, Training

DR. SCOTT LORD SMITH, *Dutchess* Your Reference Committee on Report of Council, Part I, has a resolution which was referred to it by Dr J J Zimring, of Nassau County

(*Resolution given in full—Section 148*)

Your Reference Committee is in most hearty accord with the spirit, intent, and proposals carried in this resolution, and recommends its approval by the House of Delegates

If it is within its province, your Committee would like to suggest that steps be taken to form a Section on General Practice in the Medical Society of the State of New York, following the precedent of the American Medical Association, and that this suggestion be referred to the Council for consideration

I move the acceptance of this report

SPEAKER ANDRESEN That final clause is simply a suggestion to the Council. A new section can only be formed I believe on the recommendation of the Council, so this being merely a suggestion is perfectly all right

DR. SMITH Yes

The motion was seconded, and as there was no discussion, was put to a vote, and was unanimously carried.

Section 197

Reappointment of Planning Committee for Medical Policies

SPEAKER ANDRESEN I wish to make an announcement that the Planning Committee which served us so well in the past year, and which has been ordered to function again this year, shall consist of the same members as last year

Section 198

Editing of Minutes

DR. JAMES F ROONEY, *Trustee* If I am in order, I should like to make a motion that is most essential, and that is that the president and the secretary be given authority to edit the minutes of this meeting, and that said editing is merely to make good English out of poor English and will in no way change the language or the intent of any of the motions It is merely to facilitate the proper recording of the proceedings

DR. CLARENCE G BANDLER, *New York* I second that motion

DR. EZRA A WOLFF, *Queens* May I point out that it is the prerogative of the secretary at all times to do that I don't feel we need a motion I am quite sure our secretary can do so without our prompting

DR ROONEY It is too small to argue about, but as a matter of fact that is not the function of the secretary, and never has been in this House. It has always required a motion in order that the House might feel certain that the limitation of that power of editing was embodied in the motion of the House, and that is why I make it

The question was called, and the motion was put to a vote, and was unanimously carried

Section 199

Announcements

SPEAKER ANDRESEN I wish also to announce the Workmen's Compensation Conference which is to take place at 2 30 in the Chinese Room on the mezzanine

I would also ask you again to purchase dinner tickets, and to call your attention again to the urgent need of your going up to the seventeenth floor to satisfy those technical exhibitors

Is there any further business to come before the House? If not, I wish to say that whatever success we have had in this meeting I want to give credit for the efficient help of our secretary, Dr Anderton, and our assistant secretary, Dr Frey, Miss Dougherty, Mrs Grimm, and the other members of the staff, not only during the past few days but throughout the year when we were planning for this meeting

The Council meets at two o'clock on the eighteenth floor in the Erie County Medical Society's rooms

DR. BURK May I ask that there also be included the group in Buffalo who helped us, so that we did not have to travel all the way down to the auditorium

SPEAKER ANDRESEN Those motions have already been made earlier this morning

Section 200

Vote of Thanks and Appreciation to the Speaker

DR. JAMES F ROONEY, *Trustee* I should like to be allowed the honor and the privilege of moving that this House extend our thanks and appreciation and admiration for the manifestly admirable way in which the sessions of this House have been conducted by our Speaker, and I so move.

The delegates arose and applauded

SECRETARY ANDERTON That motion was carried by a rising vote.

SPEAKER ANDRESEN Thank you very much! It has been a pleasure to preside over your deliberations even though it has been very exhausting

If there is no further business to come before the House, the House is adjourned until next year

.At 1 05 P M., an adjournment was taken, sine die

"*Resolved*, that this House of Delegates memorialize the Council and the Board of Trustees to appropriate all necessary funds for a successful public relations and legislative campaign, even if a deficit should develop at the end of the year"

I move the adoption of this report

The motion was seconded.

SPEAKER ANDRESEN Is there any discussion?

DR. JAMES F ROONEY, *Trustee* I did not appear before this Committee I think it is rather unwise and furthermore that it is unnecessary to take any action in relation to raising the dues It was proposed purely in order to secure enough money to pay approximately $80,000 a year to establish the office of an executive secretary for each district branch That was the primary purpose for which this motion was made

So far as concerns the expenditures of money for this campaign that we are carrying on, the Board of Trustees has already acted in regard to it The Board of Trustees has already acted, and will continue to act without the necessity of raising any more money By the action of the House this proposition for eight additional executive officers was not adopted, so we will not need money for that purpose this year, and we will probably be able to carry on the additional activities in all probability without any gross deficit and without having to touch our capital investment funds I have given you the situation, and you can vote on it to suit your own judgment

DR. HOMER J KNICKERBOCKER, *Ontario* As usual, Rooney steels the thunder It has been suggested that the district branches organize and finance their own areas This will work very nicely where they are already organized, but to a large extent in this State they are not organized It will come too little and too late There is money in the treasury which can be used, and, as Dr Rooney has said, will be used. That is encouraging We can use these new field officers to help us in this matter if permission is given There is great need for enlightening the rank and file of the county societies as to what the State Society should mean to them Until the rank and file are enlightened you cannot expect anything but apathy Unless you can have the active support of the real grass roots, any proposition we may initiate will fail Ignorance is why the A.M A assessment and the War Memorial Fund are light The men don't understand what it is for I was shocked a few minutes ago when even in this House of Delegates I heard a man say when Dr Hannon was called upon to speak, "Who is Dr Hannon?" Now if the men in this House of Delegates don't know who Dr Hannon is, what about the rank and file?

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Section 196 (*See 148*)

Report of Reference Committee on Report of Council, Part I General Practitioner—Section, Training

DR. SCOTT LORD SMITH, *Dutchess* Your Reference Committee on Report of Council, Part I, has a resolution which was referred to it by Dr J J Zimring, of Nassau County

(*Resolution given in full—Section 148*)

Your Reference Committee is in most hearty accord with the spirit, intent, and proposals carried in this resolution, and recommends its approval by the House of Delegates

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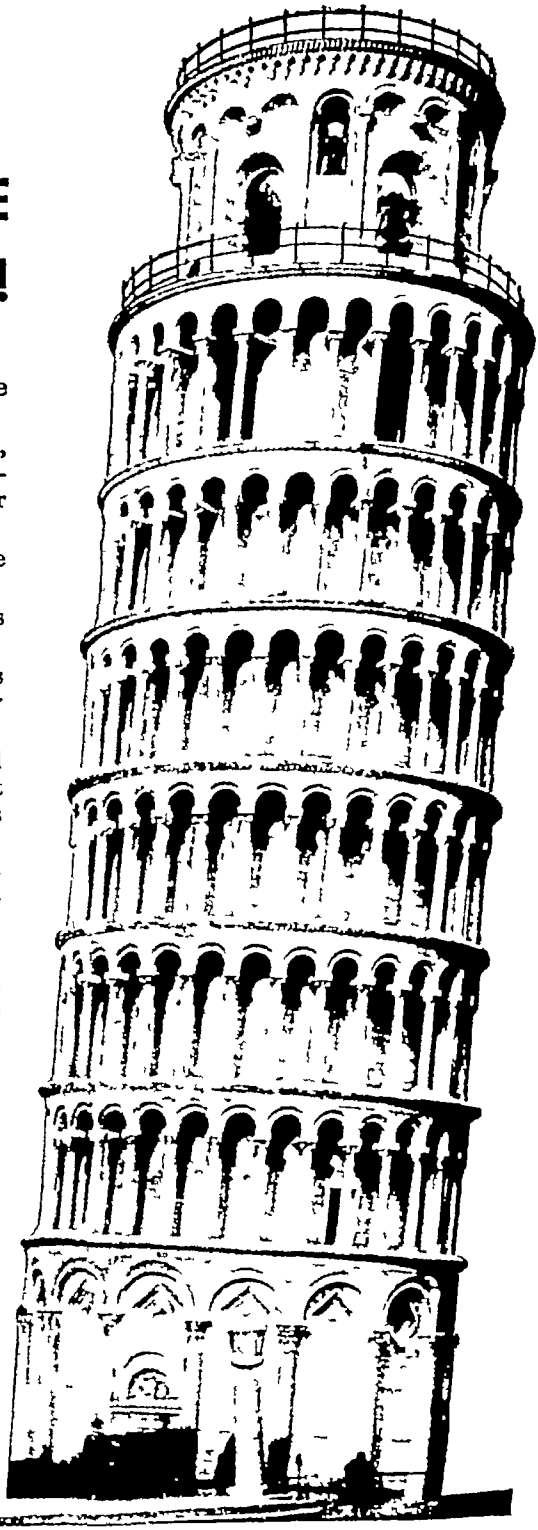
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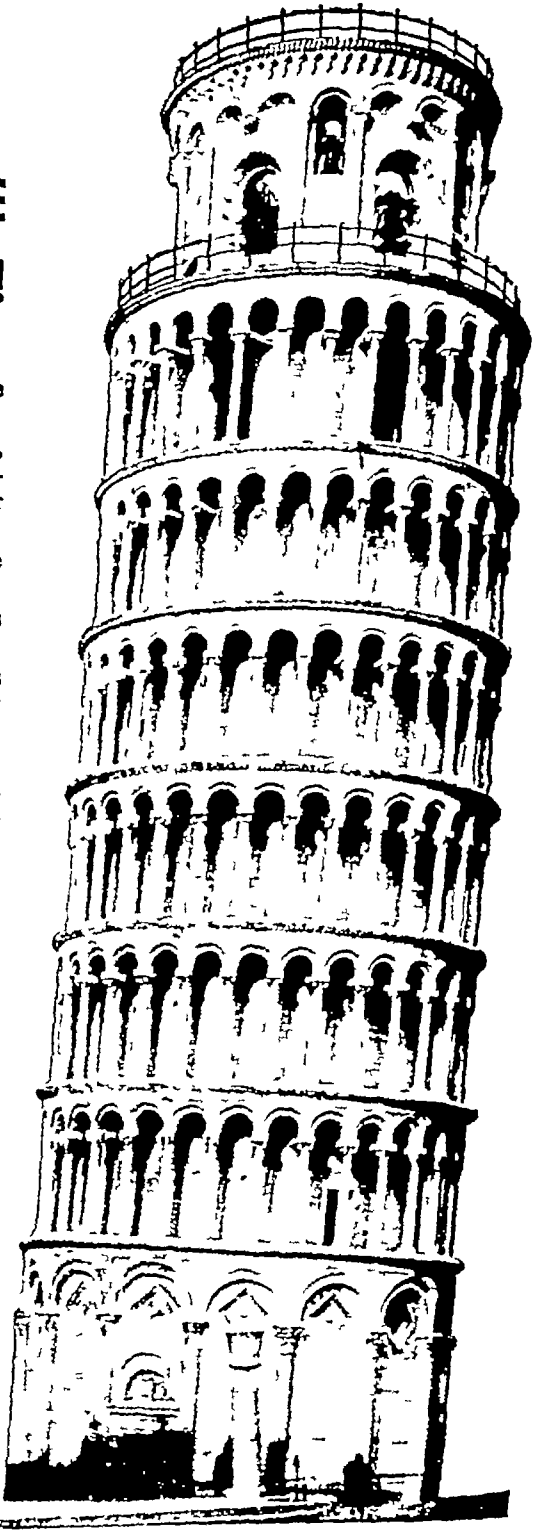
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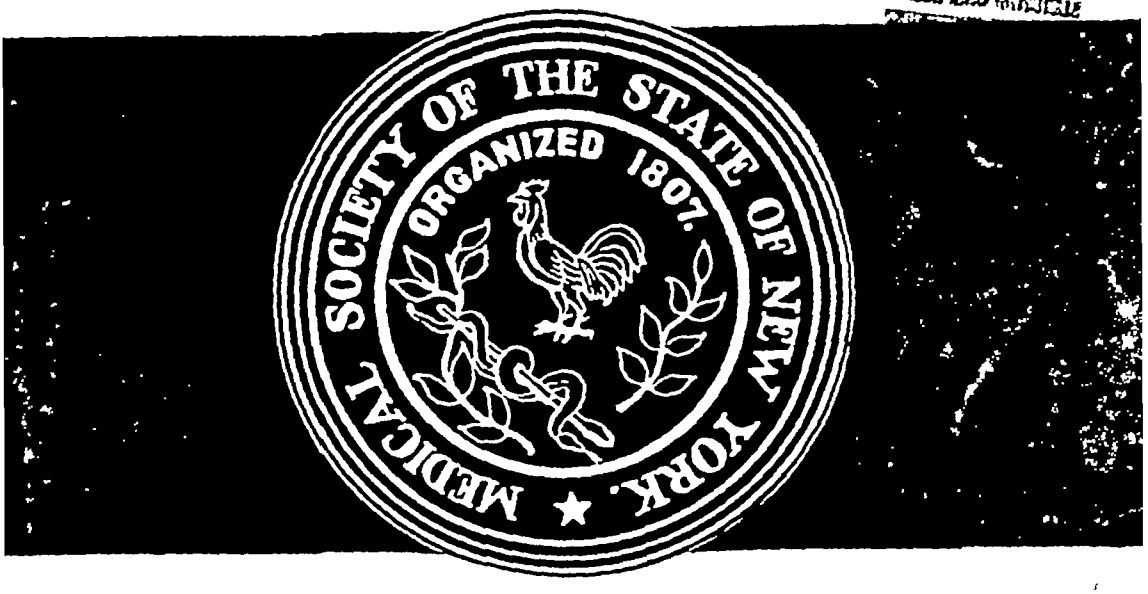
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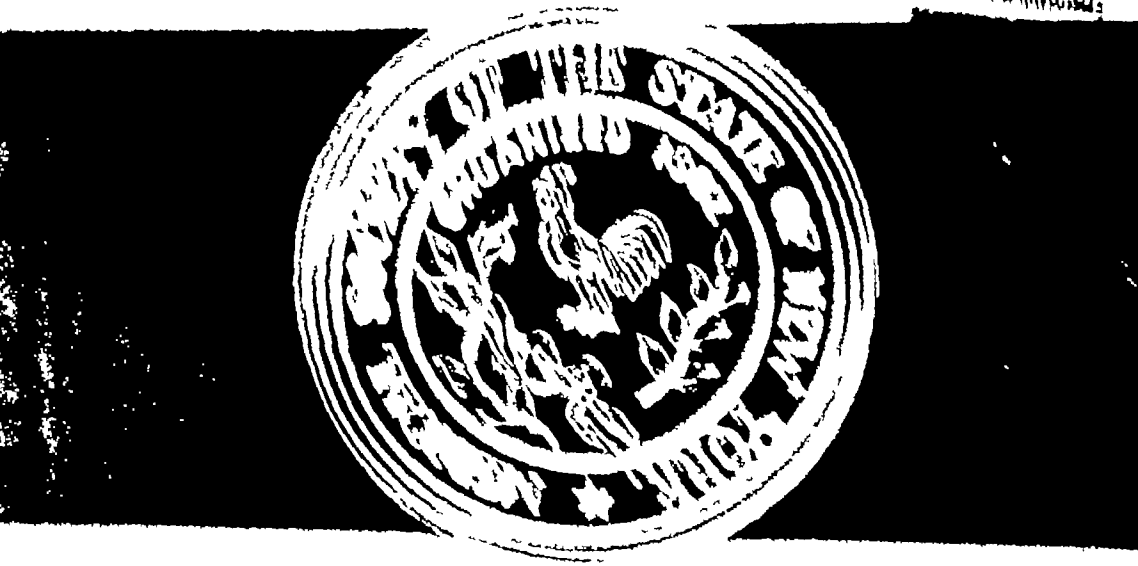
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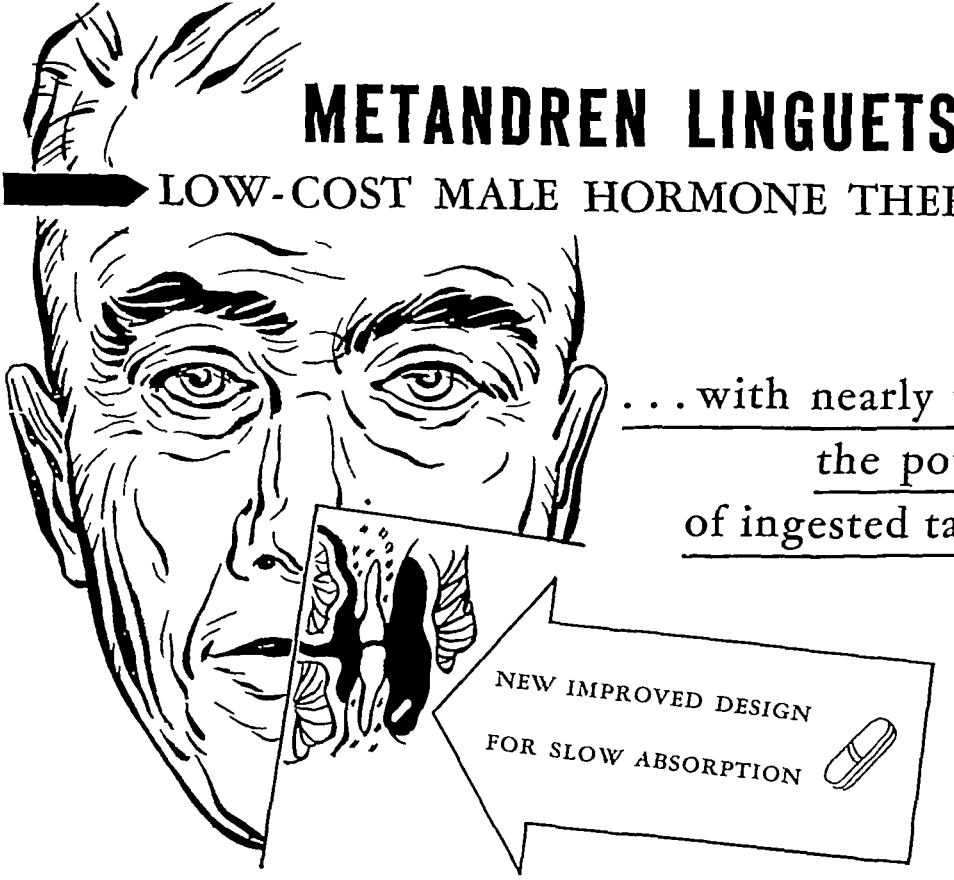
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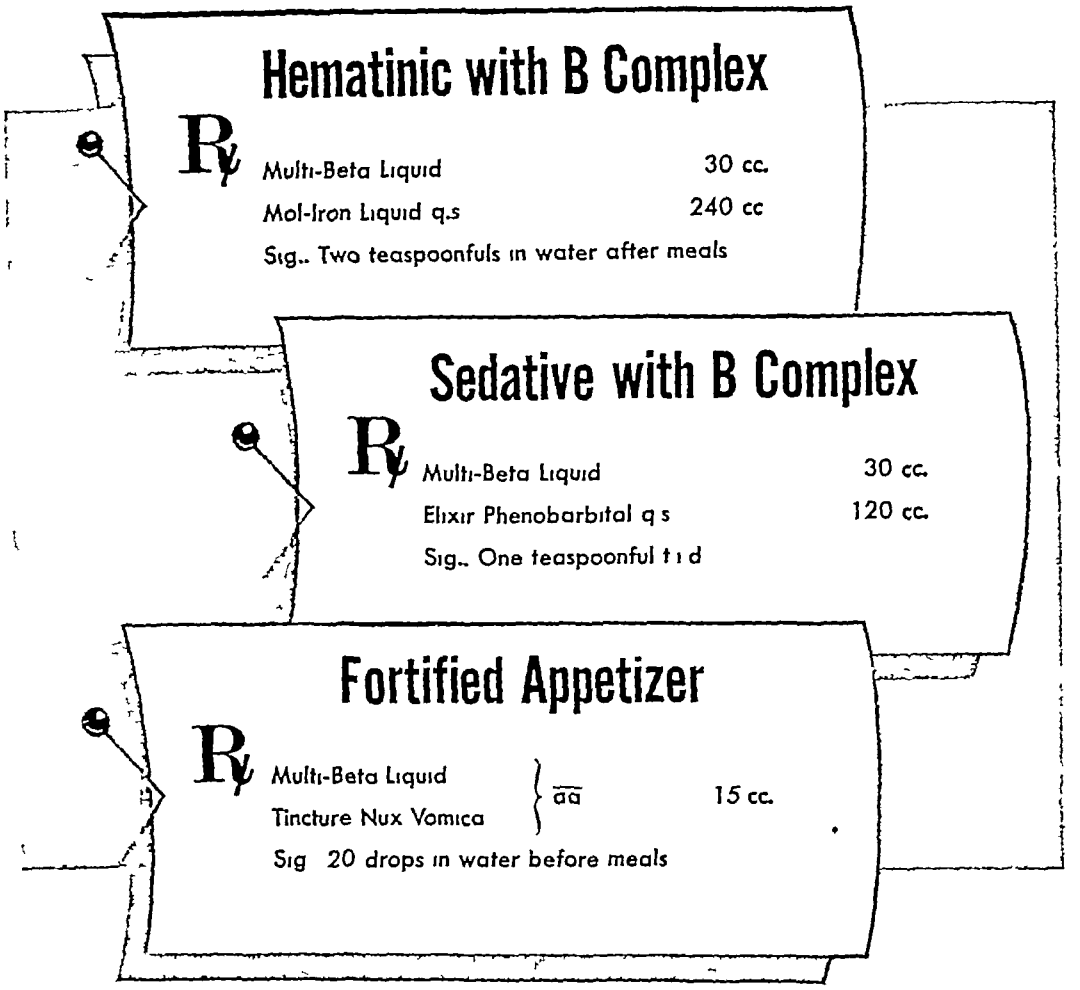
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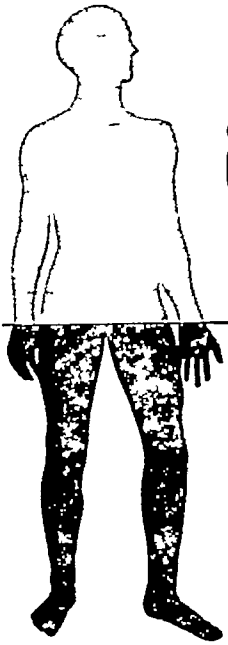


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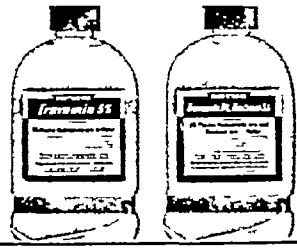
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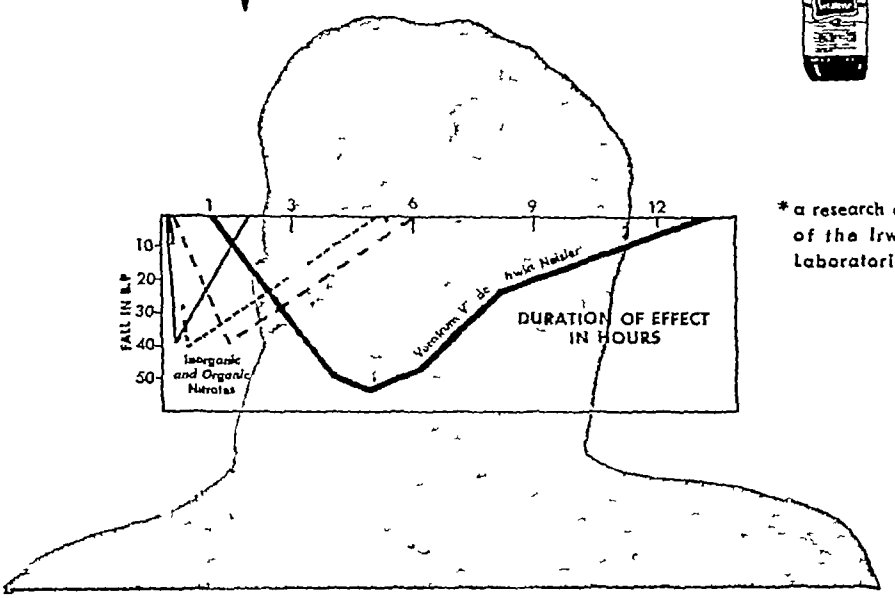
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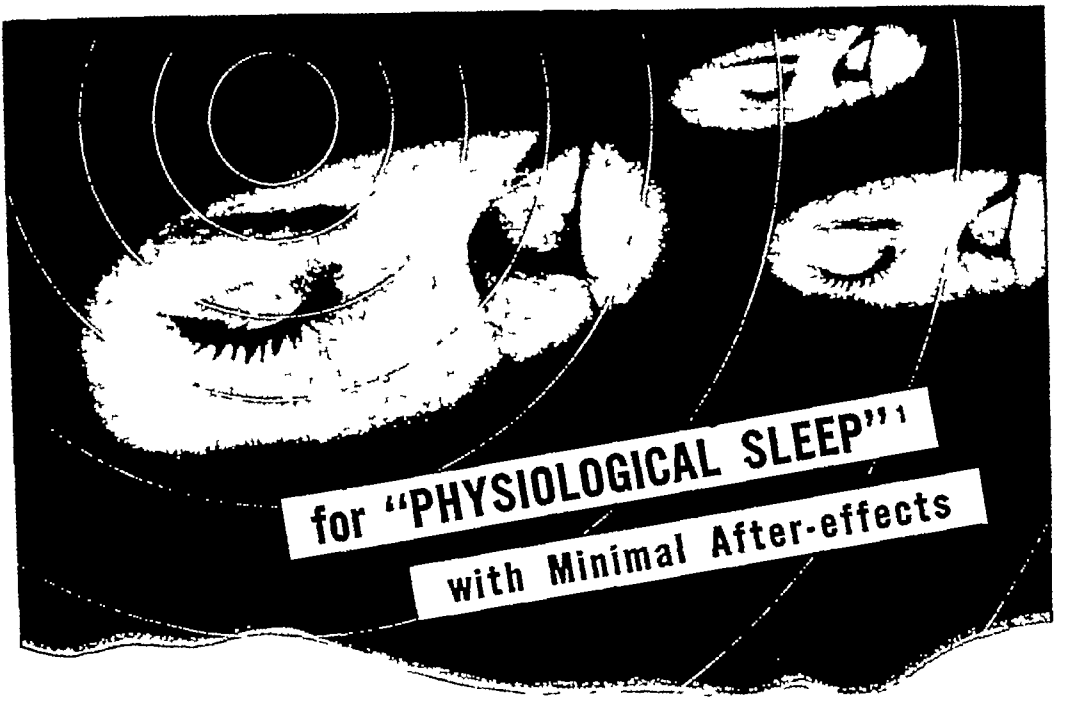
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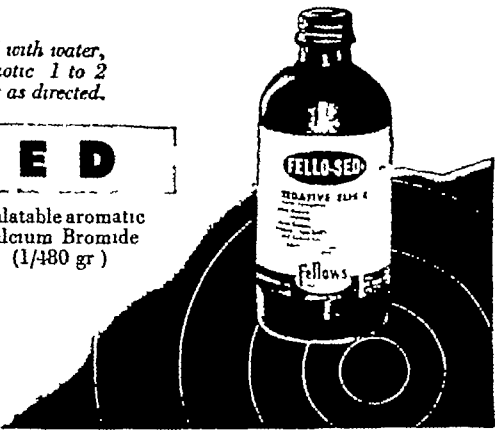
[1]N.N R., 1947 p 398
[2]Goodman L. & Gilman, A., The Pharmacological Basis of Therapeutics MacMillan, 1944, pp 177-8.

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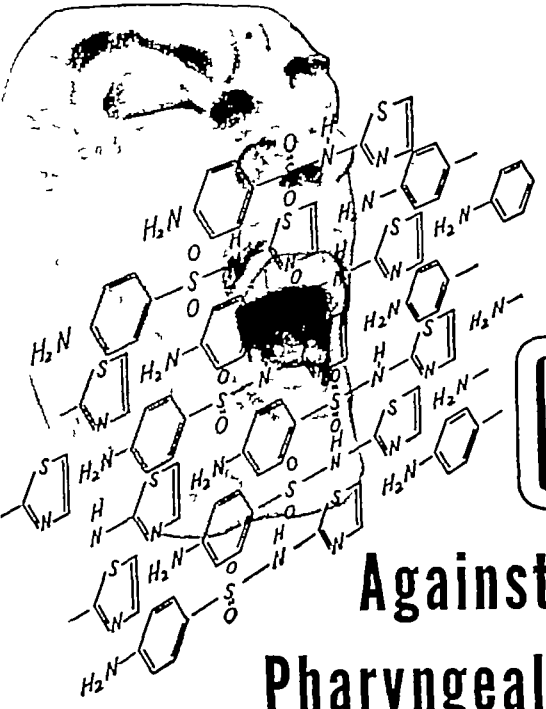
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*Neiman, I. S. Prophylactic Value of Sulfathiazole, Archives of Otolaryn. 47 158-164 (Feb.) 1948.



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Supplied in vials of twelve tablets each containing Aluminum Penicillin, 50,000 units, and sodium benzoate, 0 3 gram

* Patent applied for

Oral Tablets *Now Council Accepted*

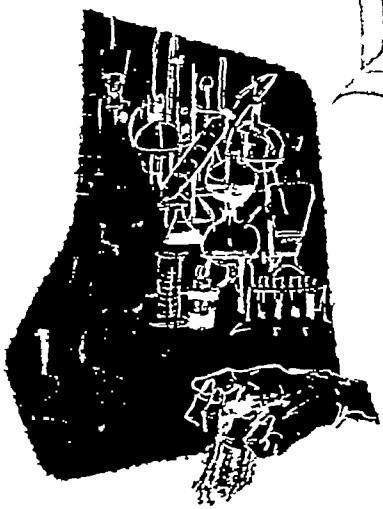
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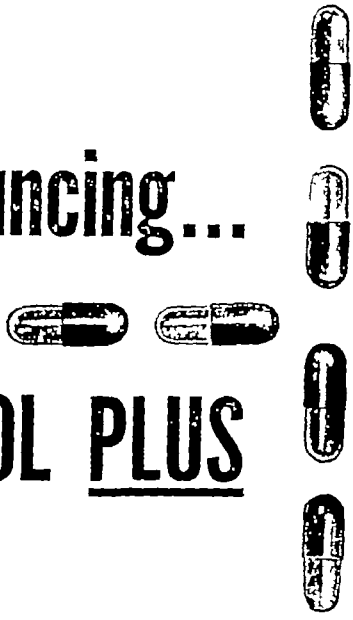


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FEOSOL PLUS by no means replaces Feosol Feosol is the standard therapy in simple iron-deficiency anemias

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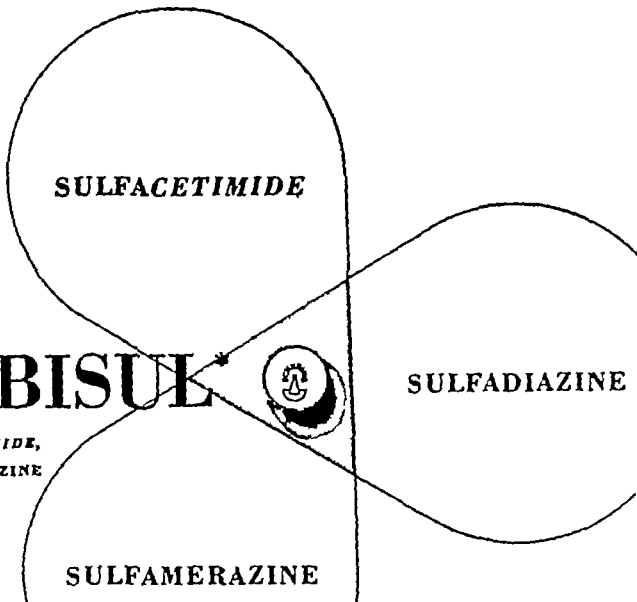
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1. Lehr, D.: To be published.

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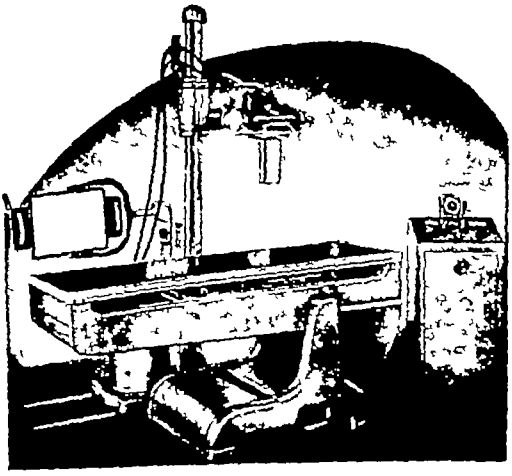
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The syrupy vehicle, with its aromatic volatile oils, has a local demulcent effect Furthermore, it assures patient cooperation by providing a base which makes Robitussin one of the most palatable of all antitussive-expectorants

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Robitussin



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Glyceryl Guaiacolate	100 mg
Desoxyephedrine Hydrochloride	1 mg

In a palatable aromatic syrup

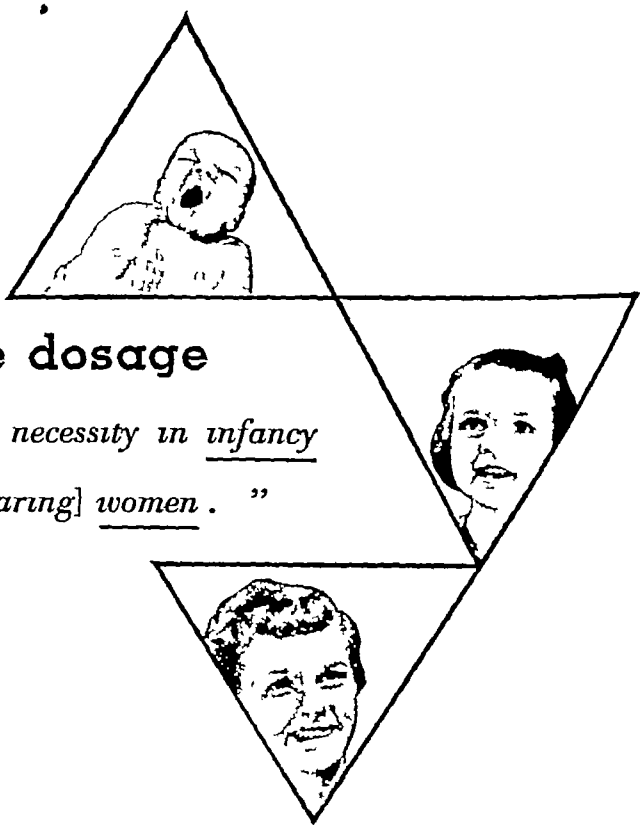
DOSAGE Children one-half to one teaspoonful according to age three or more times daily Adults: one or two teaspoonfuls as necessary every two to three hours.

SUPPLIED Pint and gallon bottles.

REFERENCES: 1 Connell W F et al: Canadian Med. Assoc. J., 42:220 1940 2. Perry W F and Boyd E M.: J Pharm. Exper Ther 73 65, 1941 3 Stevens M. E. et al: Canadian Med. Assoc. J 48 124 1943 4 Foltz, E. E. et al J Lab Clin Med. 28 603 1943 5 Graham B E: Ind. Eng Chem., Ind. Ed 37 149 1945. 6 Schulz, F and Deckner S. Klin. Wochschr 21 674 1942.

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"is almost a physiological necessity in infancy and childhood and [childbearing] women."

Sundaram, S K Lancet. 1 568, 1948

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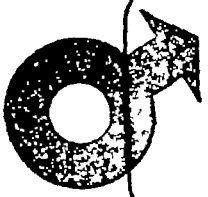
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Feosol Tablets
Feosol Elixir

the standard forms of iron therapy



"Our results with the molybdenum-iron complex have been...striking..."

Dieckmann W J and Priddle, H. D ;
Am. J. Obst & Gynec. 57 541 (1949)

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and remarkably well tolerated [5 7]

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1 Adair, F L. Dieckmann, W J and Grant, K. Am J Obst. & Gynec 32 560 (1936)
2 Talso P J and Dieckmann W J Am J Obst. & Gynec. 55 518 (1948)
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7 Kelly H T Penn M J 51·999 (1948)

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Plastishield technic of aseptic breast care



Bibliography on use of breast shields

1 Abramson M Breast Feeding the Newborn, Gen. Practice Clinics, (Oct.) 1947, p 318.
2 McKenzie, C. H The Use of Plastic Nipple Shields for the Lactating Breast, Journal Lancet 68 199 (May) 1948
3 Hoffert F Simplified Breast Care, The Amer J Nurs., 48 372 373 (June) 1948
4 Thomas, E. C The Prevention of Mastitis the nursing problem Edinburgh M J 54 456-441, 1947
5 DeLee, J B Principles and Practice of Obstetrics, W B Saunders Co., Phila. 1938.

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PATENT APPLIED FOR AND TRADEMARK REGISTERED IN THE UNITED STATES

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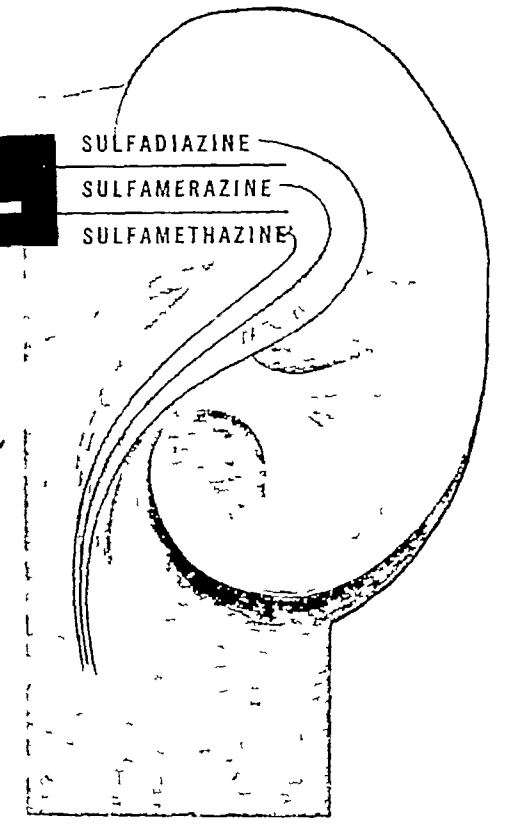
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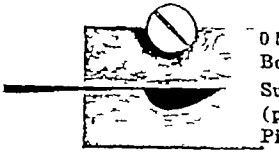


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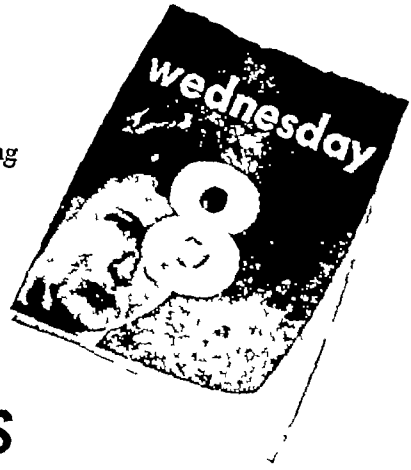
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because they work so well

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action

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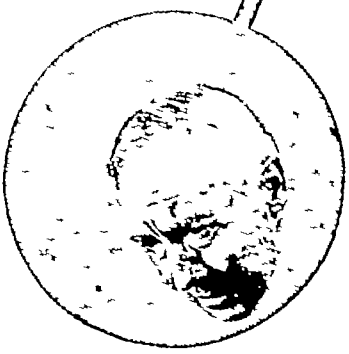
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6 varieties
Beef, lunch, pork,
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what's "ham" got to do with x-ray films?

If you lived on the eastern seaboard at the time, you'll *never* forget the '38 hurricane. It bit chunks out of the shoreline, toppled trees like a lawn mower, and marooned hundreds of towns. At the height of its fury, with casualties limping in from all sides, a large hospital in the stricken area found itself drained of x-ray films. Local supplies exhausted, too—all wires down, highways swamped, trains stalled, *and on a Sunday* into the bargain!

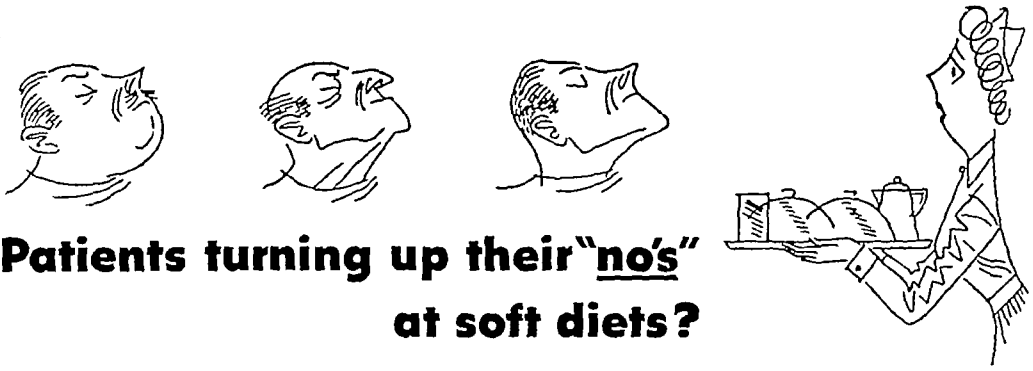
That's where the "hams" come in. Their chattering keys soon had the hospital's desperate plight on the air, where it was picked up and relayed to Picker men who sped to the office, got the films packed and off by plane and other hastily improvised transport. There's a happy ending—*they got through in time*.

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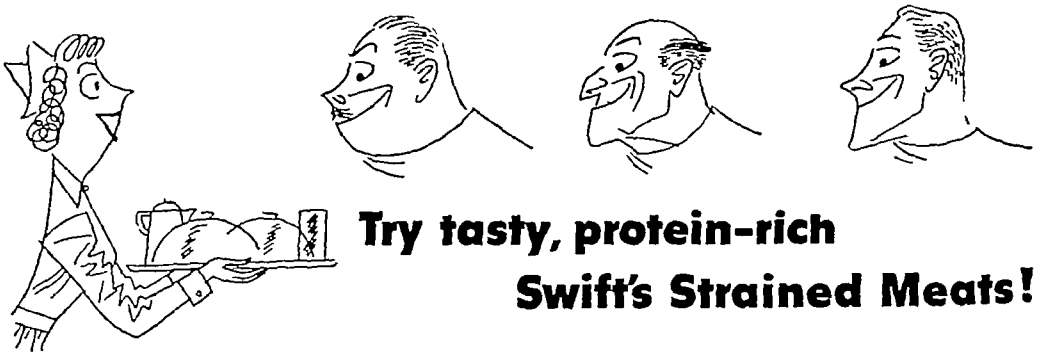
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Patients turning up their "no's" at soft diets?



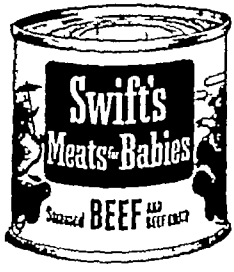
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(as reported by Reich, Button and Nechtow, "Treatment of Trichomonas Vaginalis Vaginitis," *Surgery, Gynecology and Obstetrics*, May, 1947, pp 891 896)*

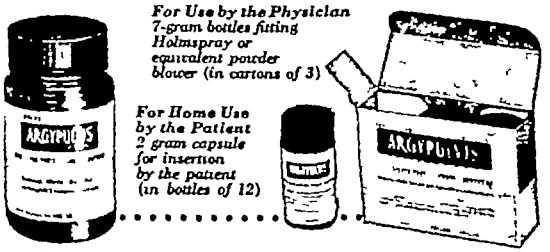
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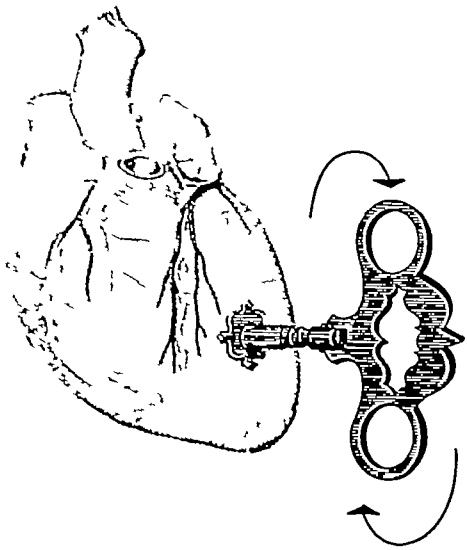
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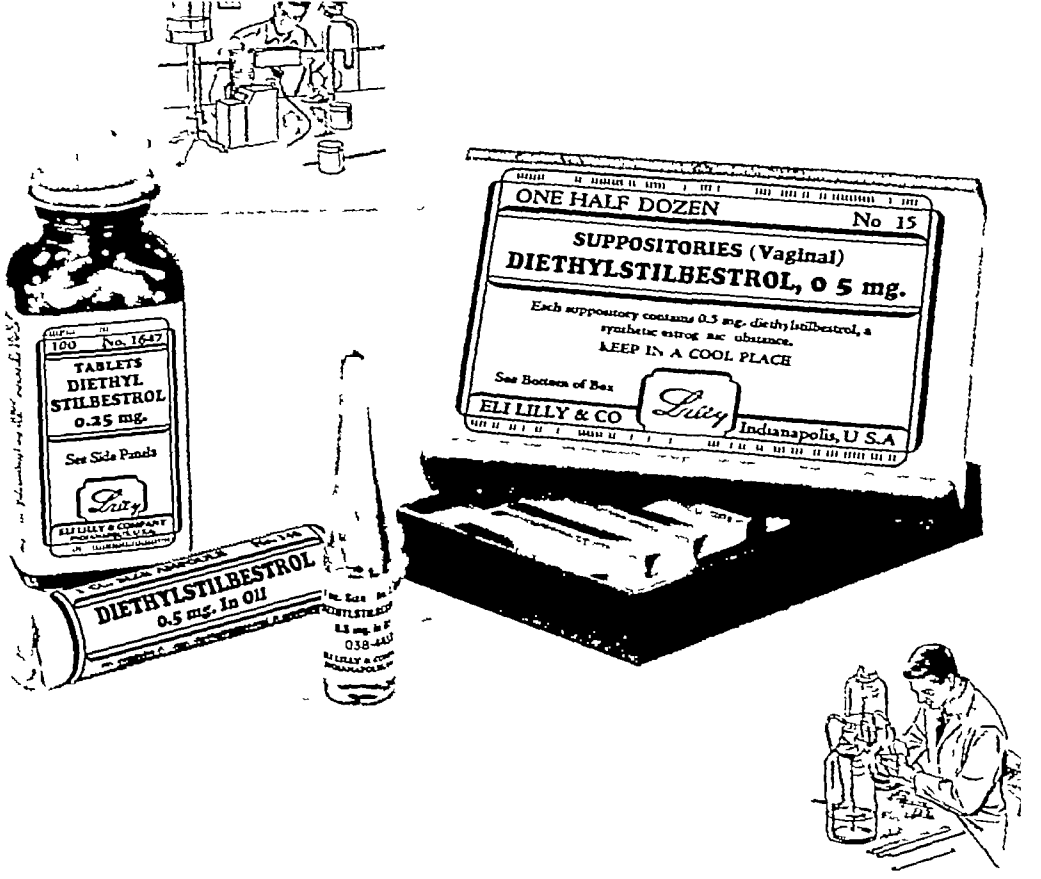
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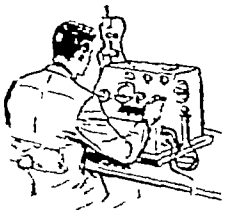
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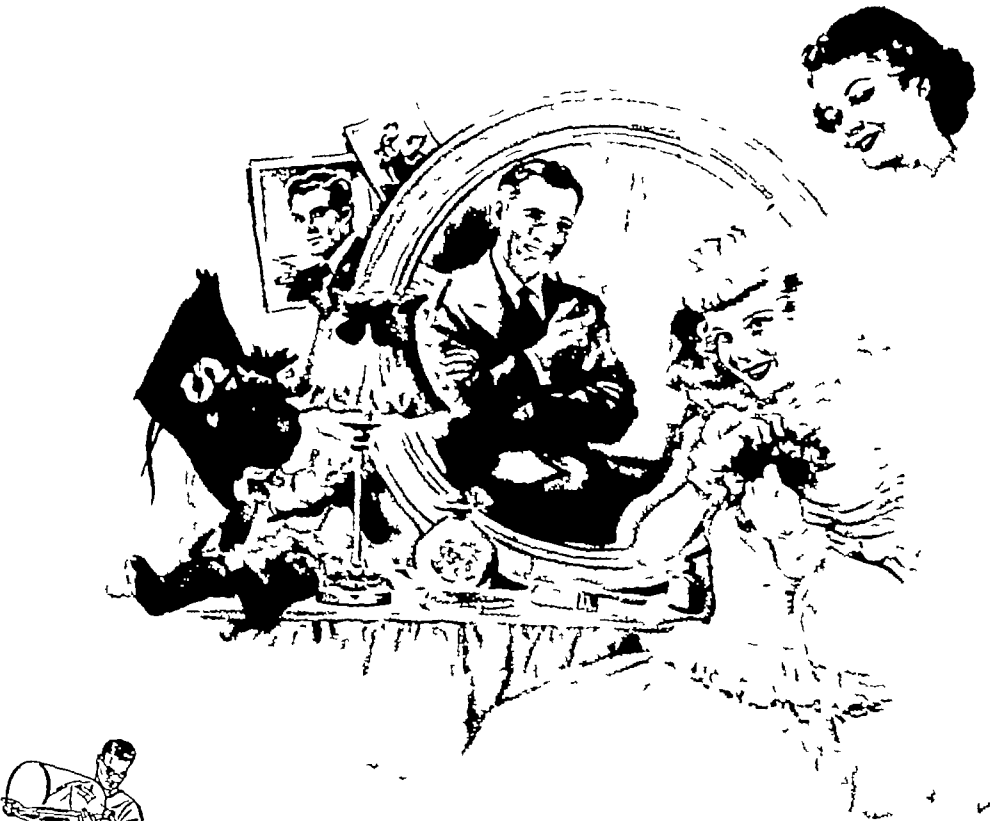
Editorials

Medicine and the Honorable, the Legislature of the State of New York, II

In 1818, an amendment to the act of 1806 provided for filing with the clerk of the county a copy of his diploma from any reputable college of medicine or medical society by any physician or surgeon from outside the State coming to reside here, and in addition stated, "No person could be licensed to practice until he shall be of the age of twenty-one," and further provided, "That hereafter it shall be the duty of every practitioner of medicine in this State to report himself to, and connect himself with, the medical society in the county where he resides, by lodging with the president of such society a certificate under his hand to that effect" A later act of April 7, 1821, according to Hannon, "seems to be the beginning of protective measures in the medical statute for the purpose of conserving the medical practice acts and maintaining the standards set by these acts"[1]

Illegal practice, in an act of April 17, 1830, was penalized by a "sum not exceeding $25 for each offense" But this was not to apply to any person "using or applying for the benefit of any sick person any roots, barks, or herbs, the growth or produce of the United States" As late as 1834, the statutes still "permitted the use of roots, barks, and herbs by unlicensed persons but prohibited such persons from accepting fees for such application or use, thus taking the profit out of such practice" The profit then was derived from selling of roots, barks, and herbs Many persons still had belief in "Indian medicine" and "herb doctors" Their descendants, in this more enlightened age of nuclear fission, now hold with, for example, chiropractic and naturopathy, and assist such illegal practitioners in their campaigns to break down the medical practice act by besieging the honorable, the Legislature, with petitions and letters in favor of licensing their pet cults.

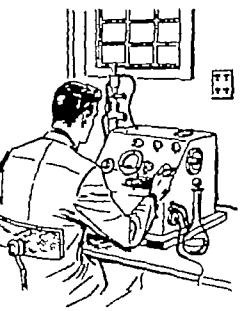
[1] See NEW YORK STATE JOURNAL OF MEDICINE, September 15, 1949 page 2127



A 15" x 12" reproduction of this illustration by George Garland is available upon request



MEDICAL RESEARCH IS IN THIS PICTURE



Take away the joy of participating in the affairs of youth, and life would lose much of its sparkle This middle-aged mother is enjoying the occasion of her daughter's first formal "prom" as much as if it were her own

Fortunately, most women undergoing the menopause do not need the help of an endocrinologist For those who do, his knowledge and services may mean the difference between semi-invalidism and comparatively normal health

Pharmaceutical preparations of the sex hormones, whenever indicated, are valuable tools of the physician Many useful products have already been made available At the Lilly Research Laboratories, pharmacologic and clinical investigations are being energetically pursued with the view of further clarifying this complex subject Significant developments are reported to the medical profession without delay



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forth, in the public interest and to which the citizens of the State may look with pride and confidence, since it assures to them the benefits of the most scientific medical education and practice yet attainable.

It is to be hoped that the honorable, the Legislature will now and in the future give due weight to its notable record as here shown in securing to the citizens of the State nothing less than the best in medical matters. The medical practice act of today denies to no one who can qualify the opportunity to become a physician or surgeon. Those not so qualified have no place in the serious and responsible field of ministering to the sick and disabled.

Cortisone

This new drug, used apparently successfully in the so far experimental treatment of some of the degenerative diseases together with arthritis, rheumatism, and the like, may be processed from plants of the Strophanthus family, of which some eighteen or twenty species exist in Africa, Burma, India, the East Indies, and the Philippines. At present quite limited quantities derived from ox bile must suffice for experimental work.

Once again medical science has pioneered what may well be another source of relief for suffering humanity, as, for example, it did in the cases of insulin, penicillin, the sulfa drugs, and countless other substances. There is nothing extraordinary about this. It is the job of medical scientists to do just what has been done in the case of cortisone. But the *discovery* is in some ways possibly the easiest part of a complicated chain of necessary events.

Great quantities of the substance are necessary if large-scale experimental treatment work is to be done. Ox bile, the present source, yields so little that new sources must be found. Apparently, plants of the Strophanthus family, or at least some of them, may be a high-yield source. According to the United States Public Health Service, the crude product of the botanic source could be processed in twenty procedures. Chemical synthesis now requires thirty-seven to produce a product of commercial value. The desired end is a cheap, standardized product available in quantity domestically.

The resources of government quite properly should be and are being marshalled, together with private enterprise, to track out sources of crude strophanthus. A request to the Budget Bureau for $1,750,000 reportedly has been made for research into plant sources. Of this amount, $250,000 reportedly would be spent to find and grow materials, the balance to be devoted to grants-in-aid to promote further research in scientific institutions.[1]

Teamwork of this kind in the public interest seems to us to be of the greatest value. In the case of cortisone, the news story of its relation to substances derived from plants of the Strophanthus family was written by William L. Laurence, one of the foremost present day science writers, a factual account free from the absurd emotionalism not infrequently encountered in the products of some other authors.[2]

The story was followed up by a further account detailing the governmental interest of Dr. Leonard A. Scheele, surgeon general of the U.S.P.H.S., Dr. Norman H. Topping, associate director of the National Institutes of Health, and Mr. Carol O. Carlanson, chief of the Division of Plant Exploration and Introduction, Department of Agriculture.

Development of new plant and mineral resources by the government is highly necessary. In this instance, it promises large-scale supply quickly, and we hope with a minimum of red tape, unnecessary chatter, and official gobbledygook, of material whereby advanced therapy of arthritis by the medical profession and further research into other possible uses of cortisone may be facilitated.

The possible value to industry alone may

[1] *New York Times*, August 17, 1949.
[2] *New York Times*, August 16, 1949.

Between 1830 and 1845 the number of medical colleges in the United States more than doubled In 1839, at the annual meeting in February of the Medical Society of the State of New York, a resolution was introduced declaring that the business of teaching should be separated as far as possible from the privilege of granting diplomas It was adopted by a large majority In 1844, delegates to the State Medical Society from Broome and Cayuga Counties attacked the abuse of the procedure by which college faculties both taught and licensed medical students They attacked the brief course of education leading to the receipt of a diploma as well and urged higher standards Homeopathic and eclectic practitioners were not then considered "regular physicians" and were not, apparently, admitted to the county medical society, the licensing examinations, and the practice of medicine An act of May 6, 1844, however, permitted them to practice and collect fees Separate homeopathic county medical societies were incorporated by an act of 1857, and the State Homeopathic Medical Society was next incorporated in 1862

In 1865 the Eclectic Medical Society of the State of New York was incorporated, and in April of that year the Eclectic Medical College of the City of New York was also incorporated Both the Homeopathic and the Eclectic Colleges were subject to visitation by the Regents of the University

By 1880, a new law required physicians to register their licenses with the county clerk This was a step forward But in 1884–1885 and 1885–1886 the Legislature failed to pass bills presented to it by the medical societies "because lack of unanimity among the physicians themselves as to what regulation was necessary" left the lawmakers in a quandary Walsh states "Divisions among physicians even more than lobbying legislation have been the source of unfortunate laws "[2] In justice to the legislators of that time they are said to have stated their quite reasonable position as being willing to cooperate "Whenever a bill is brought here that the doctors themselves agree on, we will pass it "

Only in 1872 was a law enacted by which the principle was first established that licenses should be granted by a State department and not by those engaged in (a) teaching and/or (b) practicing medicine The principle was limited in application But in 1880 the Regents were given additional power The medical societies, one of the three contenders for regulatory powers, were definitely out of the picture The power of licensure was now divided between the Regents and the colleges Only in 1890 was the power to grant licenses placed wholly by legislation in the hands of the Regents. Boards of medical examiners were subsequently created "representing the regular medical profession and two sectarian schools of medicine, and a license to practice was issued only after passing their examination "

Commissioner Draper, head of the New York Education Department, early in the twentieth century formulated the principle that "the State should establish a fundamental standard for all medical practice, which would protect the people against ignorance and let those who can come up to that standard practice " In 1907, a single examining board replaced the three previous boards of the regular, the homeopathic, and the eclectic schools

The act of 1907, with a few amendments relating to standards and disciplinary procedures, was effective until 1927 In this year the medical practice act was re-enacted into the Education Law and the control over the practice of medicine came under the Regents of the State of New York Annual registration of physicians was required and the Medical Grievance Committee under the Board of Regents was established With a few interim amendments this statute remains as the medical practice act as we now know it

It would be well for the membership of the Medical Society of the State of New York to consider the evolution of this act through nearly 189 years of constant endeavor by the medical profession and the honorable, the Legislature of the State of New York to provide the highest standards of medical education and practice for the citizens of the Empire State The recent years have witnessed more and more determined attempts, notably by the chiropractors, to undermine a structure laboriously built up as herein set

[2] Walsh J J History of the Medical Society of the State of New York New York City 1907 p 87

forth, in the public interest and to which the citizens of the State may look with pride and confidence, since it assures to them the benefits of the most scientific medical education and practice yet attainable

It is to be hoped that the honorable, the Legislature will now and in the future give due weight to its notable record as here shown in securing to the citizens of the State nothing less than the best in medical matters The medical practice act of today denies to no one who can qualify the opportunity to become a physician or surgeon Those not so qualified have no place in the serious and responsible field of ministering to the sick and disabled

Cortisone

This new drug, used apparently successfully in the so far experimental treatment of some of the degenerative diseases together with arthritis, rheumatism, and the like, may be processed from plants of the Strophanthus family, of which some eighteen or twenty species exist in Africa, Burma, India, the East Indies, and the Philippines At present quite limited quantities derived from ox bile must suffice for experimental work

Once again medical science has pioneered what may well be another source of relief for suffering humanity, as, for example, it did in the cases of insulin, penicillin, the sulfa drugs, and countless other substances There is nothing extraordinary about this It is the job of medical scientists to do just what has been done in the case of cortisone But the *discovery* is in some ways possibly the easiest part of a complicated chain of necessary events

Great quantities of the substance are necessary if large-scale experimental treatment work is to be done Ox bile, the present source, yields so little that new sources must be found Apparently, plants of the Strophanthus family, or at least some of them, may be a high-yield source According to the United States Public Health Service, the crude product of the botanic source could be processed in twenty procedures Chemical synthesis now requires thirty-seven to produce a product of commercial value The desired end is a cheap, standardized product available in quantity domestically

The resources of government quite properly should be and are being marshalled, together with private enterprise, to seek out sources of crude Strophanthus A request to the Budget Bureau for $1,750,000 reportedly has been made for research into plant sources Of this amount, $250,000 reportedly would be spent to find and grow materials, the balance to be devoted to grants-in-aid to promote further research in scientific institutions [1]

Teamwork of this kind in the public interest seems to us to be of the greatest value In the case of cortisone, the news story of its relation to substances derived from plants of the Strophanthus family was written by William L Laurence, one of the foremost present-day science writers, a factual account free from the absurd emotionalism not infrequently encountered in the products of some other authors.[2]

The story was followed up by a further account detailing the governmental interest of Dr Leonard A Scheele, surgeon general of the U S P H S , Dr Norman H Topping, associate director of the National Institutes of Health, and Mr Carol O Carlanson, chief of the Division of Plant Exploration and Introduction, Department of Agriculture

Development of new plant and mineral resources by the government is highly necessary In this instance, it promises large-scale supply quickly, and we hope with a minimum of red tape, unnecessary chatter, and official gobbledygook, of material whereby advanced therapy of arthritis by the medical profession and further research into other possible uses of cortisone may be facilitated

The possible value to industry alone may

[1] New York Times August 17 1949
[2] New York Times August 16 1949

be visualized if present forecasts of success in the treatment of arthritis and rheumatism by cortisone are confirmed, since these diseases are among the top ranking causes of disability among older and highly skilled employes

New Members of the House of Delegates

It is encouraging to note that at the 1949 session of the House of Delegates there were over 50 new members, including alternates, out of a total of 154 elected delegates [1] Of the whole group 22 per cent were general practitioners Another 28 per cent were specialists in 13 different categories

The fluid character of any legislative body is essential to maintain And apparently the several county societies are wisely adding new blood, fresh ideas, and the vigor of youth to their delegations In our view this is as it should be Also encouraging is the balance apparently being maintained well between general practitioners and specialists

The problems now crowding upon us for solution demand time and energy freely expended The younger men and women in the profession seem willing to assume their obligations if encouraged to do so, at least in this State as the above cited figures indicate

Unquestionably it is harder for younger men and women in the process of establishing their practices and their families to carry their share of the load of responsibility the profession has assumed, but there is no easy way to preserve those values and high quality service to the public which have always been the pride of the physician It is not enough just to preserve them in our view, they must be extended far beyond present horizons

We by no means underestimate the worth to the profession of its older heads, they are invaluable, and a great part of that value lies in their conservatism, usually the result of hard schooling and much experience of life

But we do need and must have the bolder, more aggressive help of new delegates, young or old, as soon as they can qualify themselves for election by their several county societies, and the more general practitioners the better

[1] New York State Journal of Medicine 49 9 (Sept 1—Part II) 1949

Current Editorial Comment

"Sing Out Sweet Land." From the *New England Journal of Medicine* comes the following account [1]

> By action of the Council of the Massachusetts Medical Society taken at its annual meeting on May 23, the appointment of a coordinating committee to cooperate with the National Education Campaign of the American Medical Association was confirmed The committee, which has been functioning since April, is composed of the officers of the Society, the delegates to the American Medical Association, representatives from the committees on medical economics, legislation, public relations, and the subcommittee on national legislation, the director of information and education, and the editor of the *Journal* The chairman is Dr Frank H Lahey, former president of the American Medical Association
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> The committee considers the time now appropriate to render an account of its activities as well as to offer its program for the future
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> Of special importance has been the assembly that took place on May 1 at the Hotel Statler, to which each district society was invited to send ten per cent of its members The attendance was estimated at six hundred, and considerable enthusiasm for the campaign was evidenced
>
> A speaker's bureau has been established and

[1] New England Journal of Medicine August, 1949

some twenty physicians have given nearly three hundred talks before various lay groups Editorial support has been elicited, and numerous press and radio writers and commentators have supported the campaign to bring the Association's program before the public Many lay groups have been active and a number of organizations have passed resolutions in support of the medical profession Much literature has been distributed, and more is available at the Society headquarters

Although the government's campaign in favor of compulsory health insurance has been relatively inactive of late, the coordinating committee is planning its own future program This is based largely on the activities of the district societies, most of which have not yet swung into satisfactory action, Franklin being a notable exception

District coordinating committees must be set up where they are still lacking Cooperation with the "Tell It To Twenty" division of the Massachusetts campaign must be strengthened, in order that a continuous flow of information to the list of twenty contacts made by each physician may make an informed group capable of substantial action and results at the proper time Resolutions against compulsory national health insurance should be adopted by every district society and auxiliary Local press and radio committees should be organized and contact made with local professional groups Lay speakers must be enlisted, and, above all, the district woman's auxiliaries must be utilized in the campaign

If socialized medicine is to form the wedge for a socialized state, it shall not be for lack of an informed and intelligent opposition *

Should such a coordinating committee be considered by the Medical Society of the State of New York? Speaker's bureaus have already been set up in this State by the several county societies, and the Public Relations Bureau of the State Society has assisted in their formation where requested

Coordination of this activity might be productive of more effective action throughout the State

* Italics ours —Editor

Costs of Hospitalization

"Far from all resort of mirth,
Save from the cricket on the hearth"
—John Milton

Commenting on the recent wave of hospital rate increases, a staff member of The Presbyterian Hospital in the City of New York said, "This wave of increases reminds me of that early pseudo-scientific experiment upon the cricket It was discovered that an increase in application of heat to a cricket increased not only the tempo of his chirps but also their intensity This increase was maintained in a steady upward curve until the cricket suddenly burned up!"

With this touching obituary upon the cricket we are one hundred per cent in sympathy If the cost of hospitalization continues to rise, these benevolent institutions will eventually consume themselves and their patients with them It reminds us of Charles Lamb's *Dissertation on Roast Pig*

We have a remedy to propose Appoint to every hospital an *Advocatus Diaboli* He could be an older man of wide clinical experience, attached to the resident in charge of medicine or surgery He will never leave the side of the unhappy young man When the resident calls for a "full work up" on such and such a case, before the patient has been seen by either the attending physician or surgeon, the *Advocatus Diaboli* will ask him what is the significance of such and such a test? Why is it necessary in this particular case?

In the course of such proceedings the older man will learn a great deal about the most modern laboratory tests The resident will learn how to do without them by the use of the five senses that God gave him It will be a process of highly beneficial mutual education

In the course of it the hospital will save a great deal of money

The *Advocatus Diaboli* would never order a laboratory test without asking himself how much it was going to cost the patient and was such an expenditure essential to the diagnosis of the case He would be as nice in his judgment in recommending a "G I series of x-rays" as if he were ordering them for his own wife, and as if he had to pay for them

According to our prescription the older man would be brought up to date on a number of tests of which he had never heard, and without which he and his patients had been getting along quite well

The resident would learn that the employment of his five senses would open to him delightful fields of research that the laboratory could never offer him He might learn that a well-taken history could shed more light upon his patient in the psychoso-

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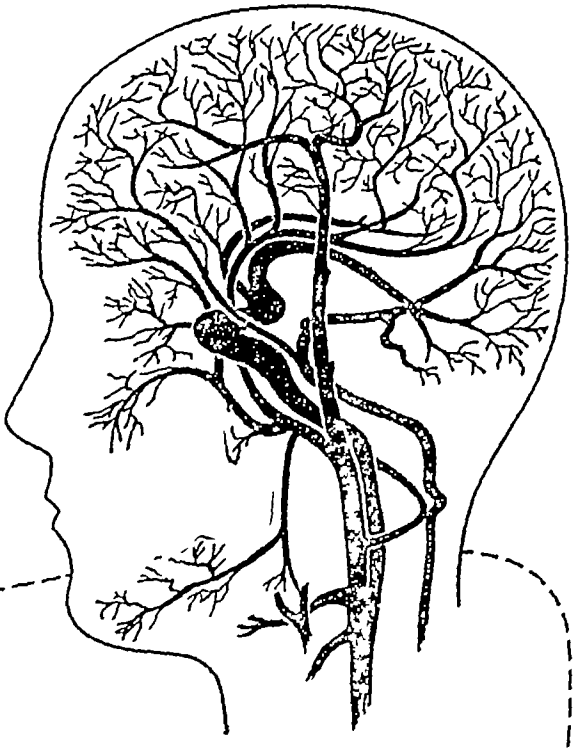
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matic field than could any x-ray or microscope

And during the process of mutual education both hospital and patients would save considerable money

Distorted Figures The *New York Journal American* of August 25, 1949, brought us the following good news

"Sister Elizabeth Kenny, founder of the revolutionary method of treating poliomyelitis, arrived today aboard the Queen Mary and offered to meet with local health authorities, "if invited," to discuss the current polio outbreak

When she first came to this country in 1940, she said, the rate of recovery in polio cases was only 15 per cent Since then, she added, the recovery rate has risen to 75 per cent "and could be 10 per cent higher"

Unfortunately for Sister Kenny we chanced to have upon our desk the supplement to the *Quarterly Bulletin* issued by the Department of Health of the City of New York from which we quote [1]

The number of cases and deaths reported during the epidemic years were

Year	Cases	Deaths
1916	9,023	2,448
1931	4,138	504
1935	2,054	91
1944	1,890	102

We have confidence in the figures provided by the New York City Department of Health, going back to 1916 Sister Kenny does not specify whether by "rate of recovery" she means recovery in the sense that the patient did not die, or recovery with no residual paralysis No matter which she means, her claims are equally absurd During an epidemic, when the public consciousness is aroused, any number of otherwise undiagnosed diseases are reported as poliomyelitis If, in a doubtful case, the doctor scratches his head, and says, "Of course, I don't know, but it might be polio," he is put down as a man ever alert for the worst, and if a case of acute indigestion, "summer complaint," or what have you recovers with no sign of paralysis he adds greatly to his community reputation

If, on the other hand, his diagnosis is, unfortunately, correct, his reputation also loses nothing

We have already in these columns paid tribute to the Kenny treatment Anterior poliomyelitis is as yet an unsolved disease Sister Kenny says so herself We have no sympathy with the curious pathology she has invented With her distorted statistics we have even less

Why can't the good woman with undoubted skill and reasonable silence treat such patients as are able to resort to the foundations which her charitably minded backers have provided for her? By unwarranted, exaggerated claims and by absurd distortion of statistics, we think she does herself, the public, and her patrons the worst of disservices

Correction In this JOURNAL for September 1, the announcement covering page 2038 should have been labelled as an advertisement We regret this omission —THE EDITORS

[1] Quarterly Bulletin Department of Health City of New York Volume 17 Number 2 1949 Supplement.

MEDICAL SOCIETY OF THE STATE OF NEW YORK
District Branch Meetings—1949

Date	District Branch	Place of Meeting	Time
October 6	Eighth	Red Coach Inn, Niagara Falls	Afternoon and evening (dinner)
October 19	Sixth	Cortland	Afternoon and evening (dinner)
October 26	Second	Hotel Gramatan, Bronxville	Afternoon and evening (dinner)

No date for the meeting of the First District Branch has been arranged

Scientific Articles

Symposium

PSYCHOSURGERY

Successes and Failures Following Frontal Lobotomy

BURNESS E MOORE, M D , New Haven, Connecticut, BENJAMIN SIMON, M D , Middletown, Connecticut, SAMUEL FRIEDMAN, M D , Newtown, Connecticut, and CONRAD O RANGER, M D , Norwich, Connecticut

(From the Department of Psychiatry and Mental Hygiene and the Psychiatric Clinic, Yale University School of Medicine, New Haven, the Connecticut State Hospital, Middletown, the Fairfield State Hospital, Newtown, and the Norwich State Hospital, Norwich, Connecticut)

SURGICAL procedures for the treatment of mental disease are rapidly increasing in number The development of the transorbital approach by Fiamberti and Freeman, the introduction of topectomy by the Columbia-Greystone Associates under the able direction of Mettler, Pool, and Heath, and the experiments of Spiegel and Wycis with thalamotomy are indicative of the advances to be expected from new and imaginative approaches based on sound knowledge of neuroanatomy and physiology [1–4] At the same time neurosurgeons are constantly modifying their older technics and devising new ones, such as the selective cortical undercutting recently described by Scoville [5] Modern surgical treatment of psychiatric disorders is only fourteen years old, and the present investigations indicate that this form of treatment has passed from its infantile and early childhood periods into one of adolescent striving and experimental exploration With its increasing maturity have come recognition of the value of surgical therapy and acceptance of the responsibilities implied

Operations on psychotic patients provide a unique opportunity, incidental to treatment, for psychophysiologic research on human subjects While the physician has an obligation to take advantage of such opportunities to advance knowledge, the primary objective of these procedures—specifically, benefit to the patient—must not be overlooked

Lobotomy has recently been subjected to critical scrutiny because its wide clinical use has not provided conclusive answers to the problem of the relationship of the frontal lobes to mental disease [6] To some extent this criticism ignores the excellent work which has been done and the difficulties inherent in study of psychotic patients with inadequate facilities and personnel, nevertheless, such appraisal is justified and wholesome The already demonstrated value of lobotomy as a therapeutic procedure makes its application indicated even in the absence of knowledge of the mechanisms by which improvement is achieved

However, the psychiatrist is likely to become confused by the availability of a number of surgical procedures for which the indications are still problematic and the results uncertain A single case exhibiting dramatic improvement or unfortunate sequelae is more impressive clinically than a large series of patients who have exhibited less striking changes, and we are likely to correlate the dramatic change with whatever procedure has been used, failing to keep in mind the fact that a multiplicity of factors may materially influence the prognosis of the patient If operations are varied on the basis of such clinically impressive cases without reference to other mitigating factors, results are even more difficult to evaluate It is important, therefore, as we have pointed out before, that each new procedure be studied by means of carefully planned observations on a

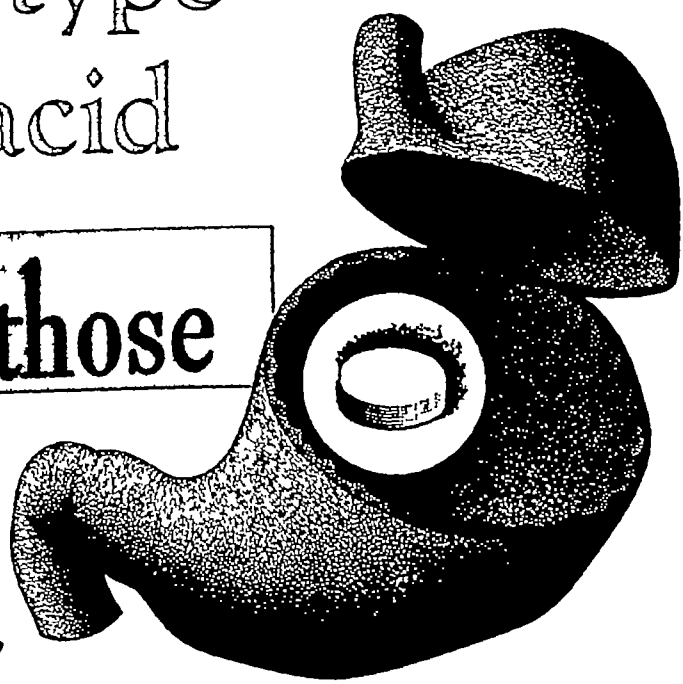
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Presented, by invitation, at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Neurology and Psychiatry May 6 1949

This paper is a report of the Connecticut Lobotomy Study a cooperative project of the above institutions. The work was supported in part by the Joint Committee of State Mental Hospitals of the State of Connecticut The operations were performed by Dr Bernard S. Brody and Dr William German, of New Haven, and by Dr William B Scoville and Dr Benjamin Whitcomb of Hartford.

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1 Brick I.B. Amer J Dig Dis., *In Press* 2. Brakow Spellberg & Nechelas Scientific Exhibit #1113, A.M.A. Annual Session 1949

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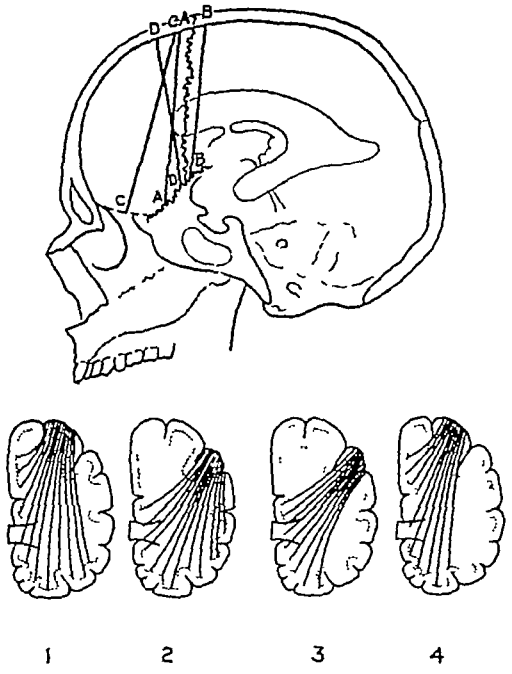


FIG 1 Diagrams showing planes and extent of sections of frontal fibers in lobotomy operations in the Connecticut Study In the majority of cases the surgeon attempted to follow plane A, and some of the other planes demonstrated were accidental Coronal section 1 shows the near-total procedure used in the cases reported here The other types of sections, shown in hemispheres 2, 3, and 4, are currently being used but results have not yet been analyzed

per cent were the most frequently encountered complications in the patients studied in this year follow-up

Case Material

Exclusive of deaths, the present report deals with 294 patients, of whom 60 5 per cent were women and 39 5 per cent men All were studied preoperatively and were followed for a minimum period of one year by one of the four participating institutions the Connecticut State Hospital, Fairfield State Hospital, Norwich State Hospital, and the Yale Psychiatric Clinic The data to be presented are based on one year follow-up results Sixty per cent of the patients were between thirty and fifty years of age, with only 12 2 per cent over fifty Fifty-three per cent were of average intelligence, and 58 6 per cent had high school education or better The great majority, i e , 233 patients or 79 per cent, were schizophrenic patients who had shown recognizable signs of illness for longer than two years in 92 per cent and who had been hospitalized for a year or more in 88 per cent The mean duration of hospitalization

TABLE 1 —STATUS OF 294 PATIENTS ONE YEAR FOLLOWING LOBOTOMY

	Number	Per Cent
General status		
Symptom free	18	6 1
Markedly improved	69	23 5
Moderately improved	92	31 2
Slightly improved	75	25 5
Unimproved	39	13 3
Worse	1	0 3
Total	294	100
Environmental adjustment		
Disturbed ward	30	10 2
Closed ward	130	44 2
Open ward	27	9 2
Discharged to home	107	36 1
Total	294	100
Work adjustment*		
Working part time	104	35 4
Working full time	82	28 0
Working at same level	49	16 6
Not working	106	36 0

* The patients in this category do not total 100 per cent because of overlapping in those patients working part and full time and at the same level of employment.

in the schizophrenic group was over five years Some type of somatic treatment, usually electric convulsive therapy, had been administered to 194 patients, or 66 per cent of the group, prior to lobotomy However, in 11 9 per cent such treatment was inadequate by present-day standards No somatic therapy had been given to 100 patients before operation, but these chronic patients were of the type who have been shown to have no favorable response to electric convulsive therapy or insulin coma Ninety-nine per cent were on closed hospital wards, and 53 1 per cent were in restraint, in seclusion, or on disturbed wards Less than 7 5 per cent were capable of work before operation, and 12 6 per cent had never worked even before illness

Results

Results following operation were evaluated in terms of environmental adjustment, level of work ability and accomplishment, and symptomatic change Improvement in these three phases of adjustment, as recorded in Table 1, was graded according to criteria which have been presented elsewhere [9] At the end of one year postoperatively, 29 6 per cent of our 294 patients were markedly improved or symptom-free, 31 2 per cent were moderately improved, and 38 8 per cent only slightly improved or unimproved (Fig 2) Thirty-six per cent of the patients had been discharged to their homes, and the percentage of disturbed ward patients had decreased from 53 1 per cent to 10.2 per cent (Fig 3) Of the entire group 63 3 per cent were working, 27 9 per cent full time and 16 6 per cent at the same level of ability as before their illnesses (Fig 4) It is difficult to compare these results with those reported in other large series because the data have been presented differently

population large enough for statistically valid conclusions [7]

The problem of validation of lobotomy as a practical therapeutic procedure in the treatment of psychoses has been of particular interest to the Connecticut Cooperative Lobotomy Study In this paper we are reporting our results to date with special emphasis on analysis of the factors which may contribute to success or failure following lobotomy It is our hope that this study will help to establish better criteria of selection of patients for near-total, open lobotomy

Methodologic Considerations

In the presence of multiple variables, two general types of methodology may be utilized to establish the validity of a new therapeutic procedure Mettler has succinctly described these as (1) the analysis of organized complexities and (2) the analysis of unorganized complexities [8] The Columbia-Greystone Associates chose the first method and have attempted to select patients carefully in accordance with well-defined and limited criteria, controlling all possible variables with the single exception of the operative procedure This method is expensive in time, money, and effort, and it is usually necessary to work with very small groups of patients Thoroughly sound from an investigative standpoint, it provides valid answers to specific questions The second method, employed by the Connecticut Cooperative Lobotomy Study, is based on the selection of patients in accordance with presently accepted therapeutic criteria of selection with subsequent analysis of results in terms of the multiple variables In our situation these variables could not be controlled in advance, since therapeutic goals and the desire to meet the immediate needs of the community were balanced against the demands of the investigation Our method has been rewarding in benefit to a large number of patients and families and in abundant material for research

The association of the three state mental hospitals of Connecticut and the Yale Psychiatric Clinic and Department of Psychiatry in a cooperative clinical study of lobotomy has already been described in a previous paper [9] A committee has been responsible for devising a common case protocol and for the definition of descriptive and diagnostic terms, criteria of selection, determination of operative procedures, and for the methodology of clinical study It was decided that the clinical progress of patients should be recorded at specific time intervals of three months, six months, twelve months, two years, and five years, postoperatively The records are filed in a central registry, are periodically reviewed by the Committee, coded, punched and analyzed on IBM cards

The weaknesses of such a study are obvious. Although terms are defined and criteria of levels of improvement specified in advance, the factor of varied personnel in four different institutions inevitably introduces some discrepancies In so far as possible this difficulty has been minimized by having all patients and case protocols checked by the clinical director of each hospital, who is thoroughly familiar with the standards set for the study The number of patients involved also nullifies such discrepancies to some degree Although based on careful clinical study of each individual case, the material gathered becomes essentially a statistical study and, therefore, lacks the detailed, personal information concerning patients' reactions which may be obtained by intensive study of a small group of individuals However, statistical analysis of large groups of patients avoids the errors which may enter into conclusions based upon a small number of subjects in which the variables have not been controlled One other point the data given represent individual correlations of each factor with clinical results following operation, and multiple correlations, taking into account all factors simultaneously, may yield additional information of value that will modify some of the conclusions reached

Operative Technic, Mortality, and Complications

The operations on this series of patients were performed by Dr Bernard S Brody, Dr William German, Dr William B Scoville, and Dr Benjamin Whitcomb Modifications of the Lyerly or open technic were used in all cases In the surgical approach the coronal suture, the lesser wing of the sphenoid bone, and the anterior tip of the lateral ventricles were used for orientation (Fig 1) The plane of section was usually made parallel to the coronal suture and just anterior to the landmarks mentioned, and a near-total section of the subcortical fiber connections was made In a later publication we hope to correlate results with the plane of section and the extent of fibers divided To date 532 patients have been operated on, with 15 operative deaths, a mortality of 2 8 per cent After the first hundred cases, with the ripening of experience, the mortality has been reduced to 1 7 per cent Intracranial hemorrhage, which accounts for the largest percentage of deaths in patients operated on by the closed technic, was responsible for only four deaths in this series Urinary incontinence, lasting longer than one month, in 17 3 per cent, epileptiform seizures in 9 8 per cent, and various neurologic signs, most of them transient, in 2 7

TABLE 2 —CHANGES IN IMPROVEMENT OF 294 PATIENTS DURING THE YEAR FOLLOWING LOBOTOMY IN RELATION TO DIAGNOSIS

	Patients Markedly Improved		Patients Moderately Improved		Patients Insignificantly Improved		Total	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
At End of Three Months								
Schizophrenics								
Hebephrenic type	7	8 9	19	24 1	53	67 1	79	100 0
Catatonic type	10	21 3	15	31 9	22	46 8	47	100 0
Paranoid type	17	21 0	30	37 0	34	42 0	81	100 0
Others*	4	15 4	12	46 2	10	38 5	26	100 0
Total of schizophrenic patients	38	16 5	76	32 5	119	50 6	233	100 0
Mood disorders	14	40 0	14	40 0	7	20 0	35	100 0
Total of nonschizophrenic patients	23	37 8	22	36 0	16	26 2	61	100 0
Total of all patients	61	20 7	98	33 3	135	45 9	294	100 0
At End of Six Months								
Schizophrenics								
Hebephrenic type	8	10 0	26	33 0	45	57 0	79	100 0
Catatonic type	12	25 6	16	34 0	19	40 4	47	100 0
Paranoid type	22	27 2	30	37 0	29	35 8	81	100 0
Others*	9	34 6	5	19 2	12	46 2	26	100 0
Total of schizophrenic patients	51	22 0	77	33 0	105	44 6	233	100 0
Mood disorders	23	65 7	5	14 5	7	20 0	35	100 0
Total of nonschizophrenic patients	32	52 5	13	21 3	16	26 2	61	100 0
Total of all patients	83	28 2	90	30 6	121	41 2	294	100 0
At End of Twelve Months								
Schizophrenics								
Hebephrenic type	12	15 2	23	29 1	44	55 7	79	100 0
Catatonic type	11	23 4	17	37 2	19	40 4	47	100 0
Paranoid type	26	32 1	31	38 3	24	29 6	81	100 0
Others*	9	34 6	8	30 8	9	34 6	26	100 0
Total of schizophrenic patients	58	24 9	79	33 9	96	41 2	233	100 0
Mood disorders	21	60 0	5	14 5	9	25 7	35	100 0
Total of nonschizophrenic patients	29	47 5	13	21 3	19	31 2	61	100 0
Total of all patients	87	29 6	92	31 3	115	39 1	294	100 0

* Included are seven patients of simple type and nine patients showing mixed syndromes presenting hebephrenic catatonic and paranoid symptoms. Ten schizophrenics could not be classified.

(Fig 5) This trend was largely attributable to relapses among the 35 patients with mood disorders

Within the schizophrenic group, paranoid patients showed the most significant and progressive improvement, and hebephrenics the poorest (Fig 6) Although the degree of significant improvement (marked and moderate) attained by the catatonic group is higher than that of the hebephrenic group, there is a tendency, not observed in the other schizophrenic types, for these patients to remain stationary or even to regress Certainly, from this data, significant improvement during the latter part of the year should not be anticipated in catatonic patients who have not achieved at least moderate improvement by the end of the initial three-month period

Grouped together as "others," because of the small numbers of cases in each category, are a miscellaneous assortment of schizophrenic patients including the simple type, unclassified

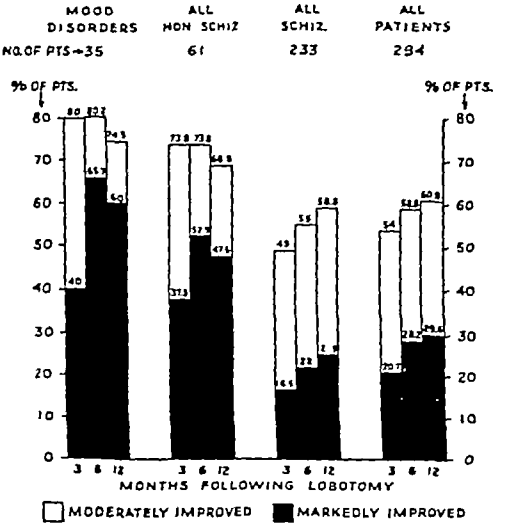


FIG 5 Changes in improvement following lobotomy in 294 patients.

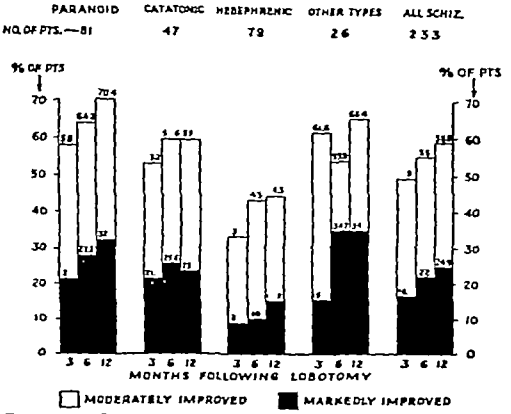


FIG 6 Changes in improvement following lobotomy in 233 schizophrenic patients.

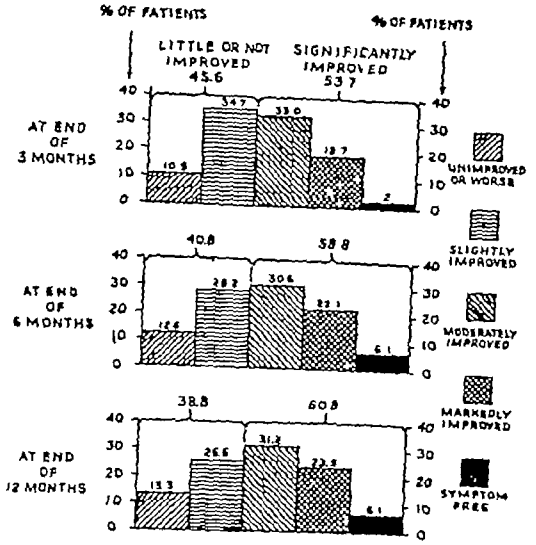


FIG 2 Status of 294 patients following lobotomy

and the criteria for evaluation of improvement are not always the same [10–12] It is for this reason that we have been careful to define in advance the criteria to be used, in order that our data might be comparable at least within our own cooperative group These results at the end of one year are in essential agreement with those reported on 200 of the same patients at the end of three months and confirm our earlier impression that the status at three months represents the minimal improvement which may be expected in a group of patients

Changes in Improvement During the Year

Although Table 2 shows that, as time elapsed, there appeared to be a constant trend in the direction of progressive improvement of the group as a whole, it seemed important to us to determine whether there was a considerable shift in the status of individual patients at the various follow-up periods Comparison of results at the three months period and at the six months period showed that 73 1 per cent of the patients remained the same in status, 19 per cent improved, and 7 9 per cent regressed From six to twelve months 80.2 per cent did not change, 10 9 per cent improved, and 8 9 per cent regressed Fluctuations of more than two grades in improvement or regression were observed in only 2 8 per cent of the patients These figures indicate that most patients reach stability by the end of three months, but some additional improvement may be expected, primarily during the early period from three to six months, while improvement and regression are about equal during the last six months of the first postoperative year

The value of recording the progress of patients

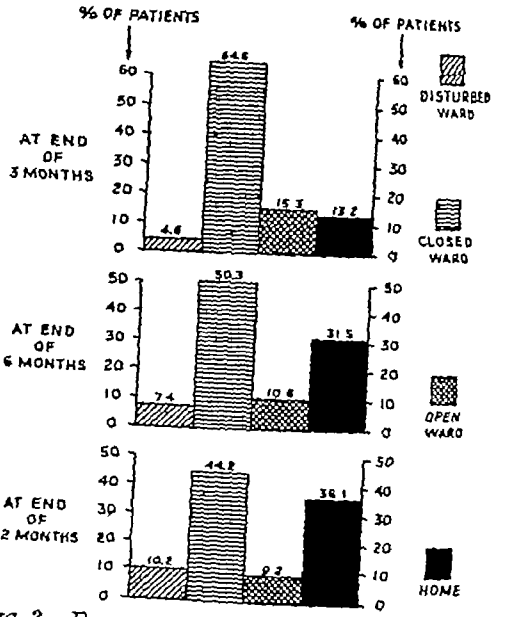


FIG 3 Environmental adjustment of 294 patients following lobotomy

at definite time intervals is further demonstrated in the analysis of changes in improvement in relation to diagnosis Table 2 shows that the total group of patients exhibited progressive improvement throughout the year and that the total schizophrenic group showed essentially the same pattern More outstanding improvement occurred initially in the 61 nonschizophrenic patients, but there was a trend toward regression in the last six months of the year following operation

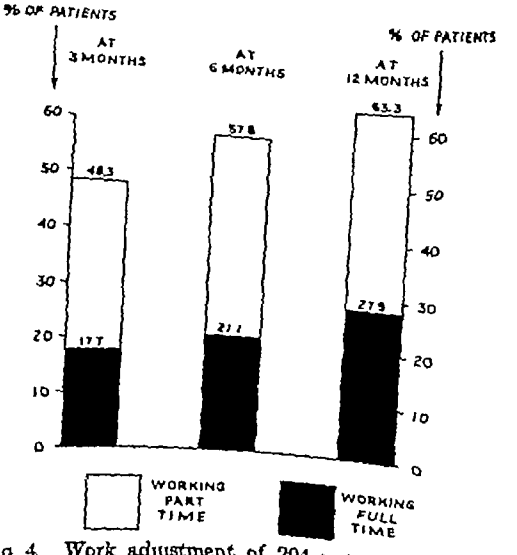


FIG 4 Work adjustment of 294 patients following lobotomy

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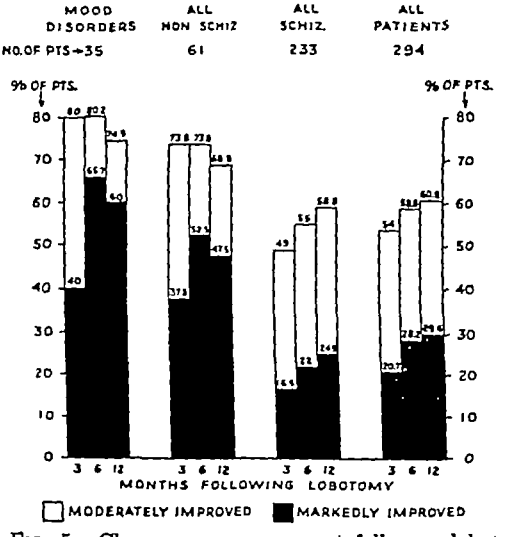


FIG 5. Changes in improvement following lobotomy in 294 patients.

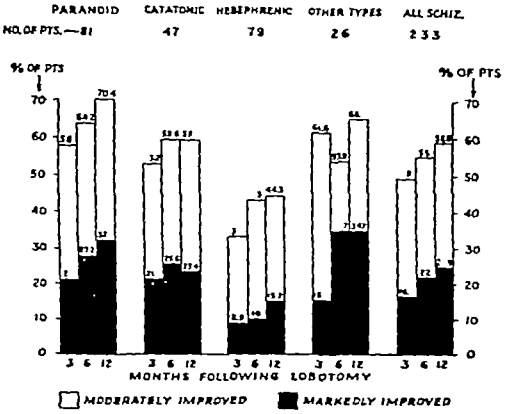


FIG 6. Changes in improvement following lobotomy in 233 schizophrenic patients.

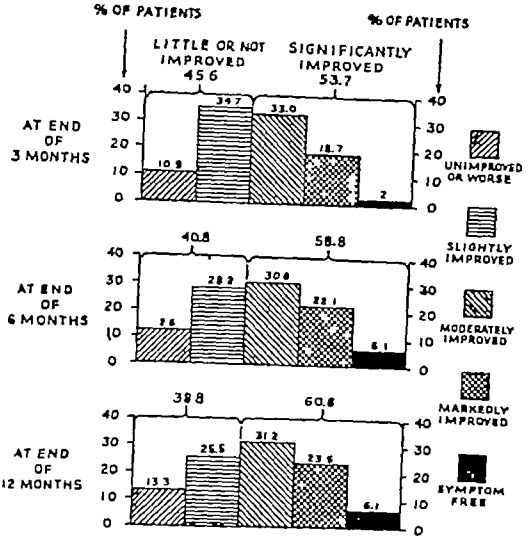


FIG 2 Status of 294 patients following lobotomy

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The value of recording the progress of patients

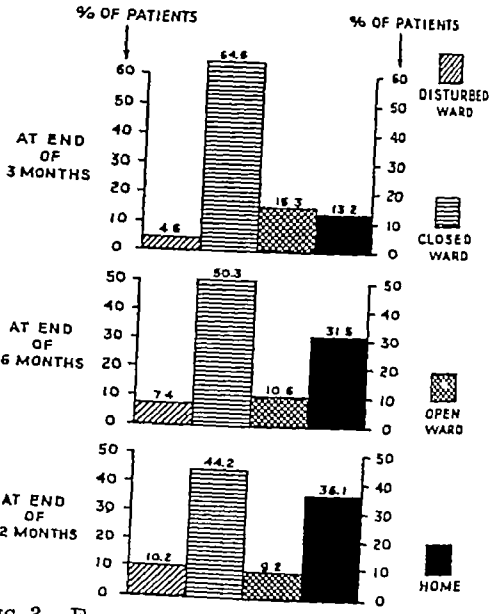


FIG 3 Environmental adjustment of 294 patients following lobotomy

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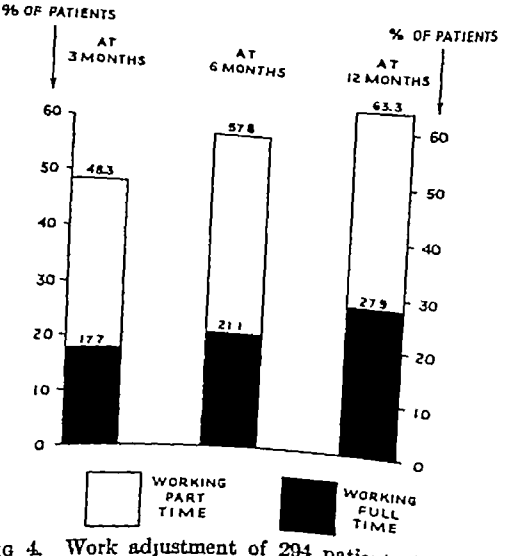


FIG 4 Work adjustment of 294 patients following lobotomy

not be discharged, the favorable behavioristic change lessened the problems of care for the hospital attending staff and made available time for more productive therapeutic effort

In most items there was continued symptomatic improvement throughout the year Within the three- to six-month period the most notable gains were in the disappearance of hallucinatory phenomena in 21.8 per cent more patients, loss of underactivity in an additional

TABLE 4 —SUCCESSES AND FAILURES IN RELATION TO SIGNIFICANT CLINICAL FEATURES*

Clinical Feature	Markedly Improved Number	Markedly Improved Per Cent	Insignificantly Improved Number	Insignificantly Improved Per Cent	Total Number	Reliability of Differences
Premorbid personality						P-0 07
Obsessive-compulsive	8	50 0	6	37 5	16	
Normal	23	42 6	17	31 5	54	
Cyclothymic	55	35 7	4	28 6	14	
Schizoid	27	24 8	52	47 7	109	
Other types	13	28 9	14	31 1	45	
Intelligence						P-0 12
Superior	21	35 6	22	37 3	59	
Average	53	34 0	55	35 3	156	
Below average	13	17 6	36	38 6	74	
Education						P-0 10
Grade school	30	25 4	48	40 7	118	
High school	38	28 4	55	41 0	134	
College	18	47 4	11	28 9	38	
Previous psychiatric illness						P-0 03
None	67	28 6	99	42 3	234	
One or more	20	33 9	15	25 4	59	
Duration of recognizable illness						P-0 01
Less than 1 year	3	50 0	3	50 0	6	
1 to 2 years	9	50 0	3	16 7	18	
2 to 3 years	11	45 8	8	33 3	24	
3 to 5 years	14	40 0	13	37 1	35	
5 to 8 years	22	28 9	29	38 2	76	
8 to 12 years	9	14 3	25	39 7	63	
Over 12 years	19	26 4	34	47 2	72	
Duration of present illness						P-0 01
Less than 1 year	10	55 6	4	22 2	18	
1 to 2 years	12	50 0	7	29 2	24	
2 to 3 years	11	36 7	10	33 3	30	
3 to 5 years	14	35 9	15	38 5	39	
5 to 8 years	19	26 8	25	35 2	71	
8 to 12 years	9	15 3	27	45 8	59	
Over 12 years	12	24 0	27	54 0	50	
Duration of hospitalization						P-0 01
Less than 1 year	18	51 4	8	22 9	35	
1 to 2 years	14	33 3	17	40 5	42	
2 to 3 years	16	47 0	10	29 4	34	
3 to 5 years	19	37 3	13	25 5	51	
5 to 8 years	12	18 5	26	40 0	65	
8 to 12 years	5	13 2	19	50 0	38	
Over 12 years	3	10 7	22	78 6	28	
Type of onset						P-0 01
Acute	24	53 3	11	24 4	45	
Gradual	40	28 4	54	38 3	141	
Insidious	23	21 9	47	44 8	105	
Amount of convulsive therapy preoperatively						P-0 01
None	13	14 9	36	41 4	87	
Less than 12	12	34 3	14	40 0	35	
13 to 20	16	25 0	30	46 9	64	
21 to 40	19	39 6	17	35 4	48	
Over 40	21	44 7	13	27 7	47	
Symptoms before operation						
Depression						P-0 01
Present	22	50 0	12	27 3	44	
Absent	65	26 0	103	41 2	250	
Anxiety						P-0 01
Present	35	47 9	21	28 8	73	
Absent	52	23 5	94	42 5	221	
Food refusal						P-0 01
Present	17	51 5	8	24 2	33	
Absent	70	26 9	107	41 0	261	
Untidiness						P-0 01
Present	25	23 1	53	49 1	108	
Absent	62	33 3	62	33 3	186	
Overactivity						P-0 18
Present	43	34 9	46	37 4	123	
Absent	44	25 7	69	40 4	171	
Destructiveness						P-0 19
Present	22	25 6	39	45 3	86	
Absent	65	31 5	76	36 5	208	
Irritability						P-0 16
Present	54	27 8	74	38 1	194	
Absent	33	33 0	41	41 0	100	
Delusions						P-0 30 to 0 20
Present	48	30 2	54	34 0	159	
Absent	39	28 9	61	45 2	135	

* The total group of patients including the moderately improved, was considered in calculating Chi squares. In this table comparing successes and failures the moderately improved have been omitted in order to highlight the differences between the two extremes.

TABLE 3.—Recovery from Symptoms and Appearance of New Symptoms During the Year Following Lobotomy

Symptom	Number of Patients with Symptoms Before Operation	Per Cent Recovered			Per Cent Change	
		At 3 Months	At 6 Months	At 12 Months	From 3 to 6 Months	From 6 to 12 Months
Food refusal	33	100 0	100 0	100 0	0	0
Suicidal attempts	19	100 0	100 0	100 0	0	0
Hypochondriasis	17	88 2	88 2	94 1	0	5 9
Depression	44	81 6	90 8	93 2	9 2	2 4
Assaultiveness	137	85 4	90 1	90 1	4 7	0
Obsessive-compulsive tendencies	29	75 9	82 5	89 7	6 6	7 2
Overtalkativeness	40	70 0	80 0	85 0	10 0	5 0
Anxiety	73	89 1	90 5	87 7	1 4	−2 8
Overactivity	123	80 5	86 2	85 3	5 7	−0 9
Destructiveness	86	87 2	82 6	81 4	−4 6	−0 8
Impulsiveness	181	77 3	78 5	79 0	1 2	0 5
Euphoria	14	64 3	64 3	78 6	0	14 3
Hallucinations	115	68 7	90 5	73 9	21 8	−16 6
Bizarre activity	122	66 3	71 3	73 8	5 0	2 5
Bizarre speech	74	56 8	60 8	73 0	4 0	12 2
Overt sex acts	18	61 1	61 1	55 6	0	−5 5
Mutism	64	54 7	64 1	70 8	9 4	6 7
Delusions	159	60 4	64 2	69 2	3 8	5 0
Irritability	194	59 9	66 4	67 5	6 5	1 1
Inappropriate affect	125	40 0	44 8	62 8	4 8	18 0
Underactivity	73	45 2	61 6	60 3	16 4	−1 3
Poor memory	20	50 0	55 0	50 0	5 0	−5 0
Disorientation	18	61 1	61 1	55 6	0	−5 5
Withdrawal	127	41 7	49 0	52 0	7 3	3 0
Untidiness	108	50 9	51 9	52 8	1 0	0 9
Lack of interest	137	22 9	35 0	39 4	12 1	4 4

Symptom	Number of Patients Without Symptom Before Operation	Per Cent with New Symptoms				
		At 3 Months	At 6 Months	At 12 Months		
Lack of interest	157	40 1	30 6	37 6	−9 5	7 0
Underactivity	221	19 0	14 0	14 0	−5 0	0
Inappropriate affect	169	10 7	11 2	13 0	0 5	1 8
Irritability	100	7 0	11 0	8 0	4 0	−3 0
Withdrawal	167	7 8	8 4	9 6	0 6	1 2

schizophrenics, and those with mixed syndromes presenting hebephrenic, catatonic, and paranoid symptoms On the basis of other studies, the prognoses of these patients are generally accepted to be entirely different It is not surprising, therefore, that, when considered together, the improvement pattern of the group combines some of the features of the other types but is distinctive in that the comparatively small number of markedly improved patients at the end of the three months period had more than doubled by the end of six months, without further increase during the rest of the year Moreover, the percentage of patients who are markedly improved is greater than that of any other schizophrenic type including the paranoid

Symptomatic Changes

It is important to analyze changes in individual symptoms as well as alterations in the general clinical picture This is always a difficult task, since as yet no very satisfactory method of quantifying symptomatology has been devised In this and in our previous report, we have followed a plan of study by Simon and Holt, using a group of readily defined, easily distinguishable symptoms common to psychiatric patients[13] The presence or absence of symptoms in significant degree was recorded at the time of follow-up Partial remission of symptoms was ignored for the purposes of this study In Table 3 loss of symptoms is analyzed without reference to diagnosis because of the overlapping in the symptomatic manifestations of various psychiatric disorders Similarly, the degree of improvement is not considered in this table, since the continuation of old symptoms or the acquisition of new ones is not necessarily correlated with the degree of improvement based on evaluation of the total clinical picture

The percentile recovery from specific symptoms at the end of the first postoperative year is shown Recovery was most striking in respect to certain frankly behavioristic symptoms, but affective relief and even improvement in ideational symptomatology are also obvious Hypochondriasis, depression, obsessive-compulsive behavior, and anxiety—symptoms which are ordinarily most disturbing to the patient—were lost in over 85 per cent of cases The disappearance in more than three fourths of the group of impulsive, overactive, aggressive behavior, suicidal attempts, and constant refusal of food often facilitated the acceptance of patients within their homes if their prolonged illness had not meant readjustment of the families to their absence and reluctance to undertake the responsibilities of even minimal care Even when patients could

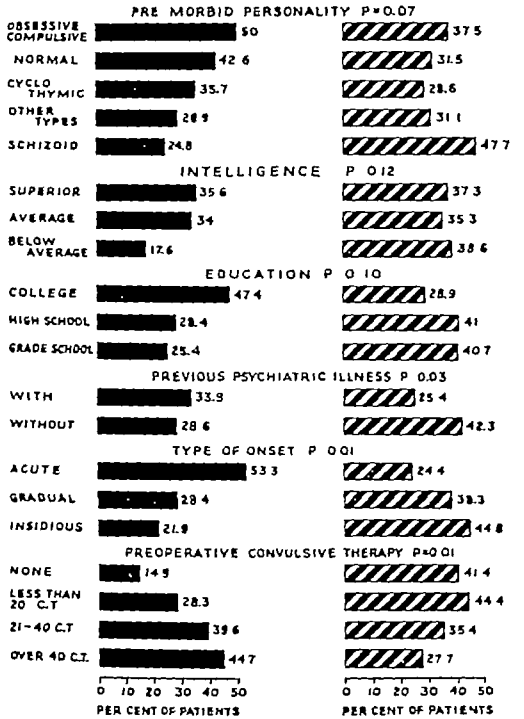


FIG 8 Correlation of significant preoperative clinical features with therapeutic success or failure at the end of one year following lobotomy

difficulty The meaning of this finding, which holds true for other forms of psychiatric treatment as well, is still obscure

Patients who have been given large amounts of convulsive treatment showed a higher percentage of marked improvement after lobotomy This suggests that the criteria upon which they were selected for convulsive therapy were valid, even though that treatment resulted in failure, or it may indicate merely that there was sufficient interest on the part of the family and the physicians to give the patient every therapeutic opportunity possible There is a better result in marked improvement (33 9 per cent as compared to 28 6 per cent) in those patients who had previous episodes of psychiatric illness Since those patients who showed most marked improvement had had more than 40 convulsive treatments, it seems likely that a considerable number of these patients may have had remissions and relapses, suggesting that the tendency to remit has good prognostic value

It seems evident that schizoid personalities have a poor prognosis for any type of therapy including lobotomy, while so-called "normal," premorbid personalities offer promise of good results Excellent response was noted in our series for cyclothymic and obsessive-compulsive patients, but the numbers are too small to have any high degree of reliability That patients

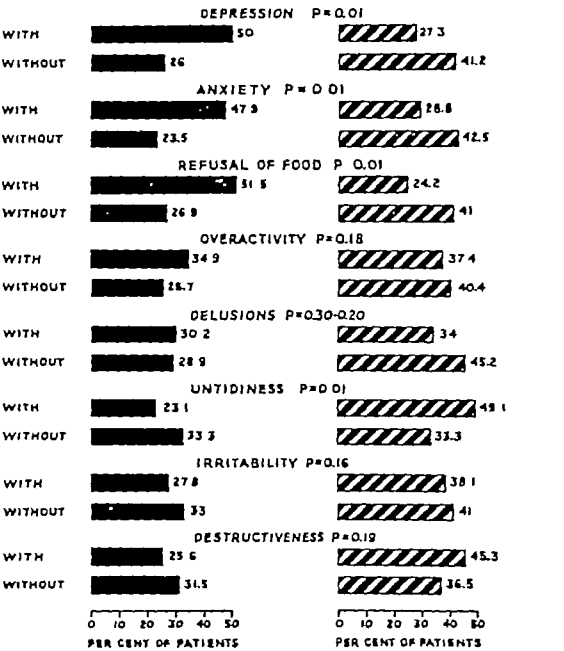


FIG 9 Correlation of specific symptoms with success or failure one year following operation

with superior intelligence and college education do better than those less well endowed was not unexpected, although our earlier correlation of intelligence with improvement on a smaller series had not shown any valid differences *

Since a large number of disturbing symptoms disappeared in over 70 per cent of cases after lobotomy, it would seem logical to suppose that the presence or absence of such symptoms might have some prognostic value This was not true, however, except in the case of anxiety, depression, food refusal, and untidiness, valid at the 1 per cent level, and overactivity, destructiveness, and irritability at the 10 to 20 per cent level (Fig 9) While the commonly held belief that patients with a high degree of tension and anxiety do well after lobotomy is confirmed, our data do not support the hypothesis that patients exhibiting other symptoms which disappear in a high percentage of cases after lobotomy are necessarily the best candidates for lobotomy It is true that their symptoms will probably disappear after lobotomy, but patients without such symptoms showed an almost equally good response If patients are selected according to such criteria, very likely they will improve, but a large number of patients who might have improved, had they been given a chance, will be missed

* The optimum intellectual level was based on psychologic examination if the patient was testable before operation, but in the majority of cases judgment was dependent on clinical evaluation which took into consideration school history occupational level, and social and economic attainment.

16 2 per cent, and cessation of overtalkativeness in 10 per cent Appreciable gains were also made in respect to symptoms such as mutism and anxiety With regard to inappropriate affect, bizarre speech, and euphoria, additional improvement was more notable late in the first postoperative year Except for the reappearance of hallucinations in 16 6 per cent of cases in the last half of the year, no appreciable losses in symptomatic improvement occurred during either follow-up period

The addition of symptoms attributable to brain damage was to be expected as a result of lobotomy Loss of interest in self and surroundings was the most common accretion in our experience It was observed in 37 6 per cent of patients who had not exhibited this symptom previously Approximately the same percentage of patients who had this symptom before operation lost it afterward Underactivity appeared for the first time in 14 per cent of patients after operation, inappropriate affect in 13 per cent, and withdrawal in 9 6 per cent These undesirable sequelae to lobotomy require greater effort from the hospital staff in their attempts at rehabilitation, but the only new symptom which gave rise to problems in practical management was irritability, which developed in 8 per cent of the patients Anxiety, depression, refusal of food, and suicidal attempts have been conspicuous by their absence after operation The remainder of the symptoms studied appeared for the first time after lobotomy in less than 6 per cent of patients

Comparison of Successes and Failures

While the improvement in symptomatology and environmental and work adjustment previously described is encouraging, the analysis of such data should provide us with important clues as to criteria for better selection of patients for operation In order to study this aspect, the patients at the end of a year following lobotomy were divided into three groups markedly improved, moderately improved, and insignificantly improved These degrees of improvement were then correlated with the clinical features of the cases and the reliability of the differences tested by means of Chi square The data resulting from comparison of the clinical features of those cases which may be regarded as successes or failures are presented in Table 4 together with the degree of reliability to be placed on this material It will be observed that the most valid differences between the two extremes are to be found in relation to duration of recognizable illness, duration of present illness, length of hospitalization, type of onset, and amount of convulsive therapy preoperatively Four symptoms have a similar high degree of correlation

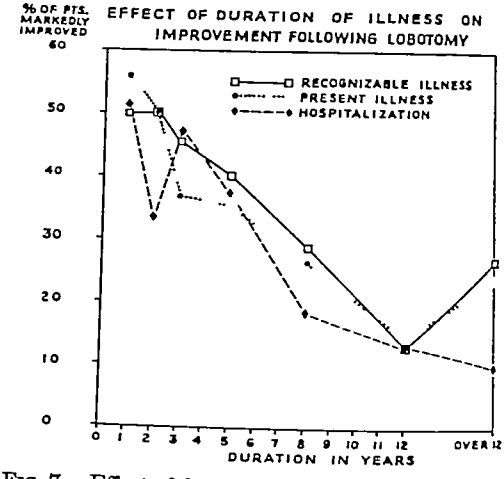


FIG 7 Effect of duration of illness on improvement following lobotomy

depression, anxiety, and food refusal with improvement, and untidiness with lack of improvement

Although there is a steady decline in marked improvement and an increasing number of failures in direct relationship to the duration of recognizable illness, present illness, and length of hospitalization, we have shown previously that there is no significant difference in response in those patients hospitalized less than five years (Fig 7) The upswing in marked improvement in patients with the longest duration of illness is surprising and contrary to the general trend * It is only partly attributable to a small group of patients with manic-depressive and involutional disorders It does not hold true for the duration of hospitalization and is certainly not significant, since the percentage of failures continues to increase in this group with longest illness It is evident, however, that there is considerable hope for marked improvement, and very prolonged illness should not be the only cause for rejection of these unfortunate patients for operation As we have pointed out before, five years of preliminary hospital treatment seems to be the maximum period of delay before operation if the results of lobotomy are not to be influenced unfavorably [9]

When the onset was acute and less than a month had elapsed between the time of recognizable abnormality in behavior and hospitalization, marked improvement resulted from lobotomy in 53 3 per cent (Fig 8) It was harder to differentiate the gradual from the insidious onset, and the smaller difference, 26 4 per cent as compared to 21 9 per cent successes, probably reflects this

* See Table 4 and compare the group ill over twelve years with the eight- to twelve-year group.

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THALAMOTOMY NEUROPSYCHIATRIC ASPECTS

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THERE is a fundamental difference between thalamotomy and the other neurosurgical procedures of the frontal lobe, such as lobotomy, lobectomy, or topectomy Thalamotomy leaves the association systems between the frontal lobes and the other parts of the cortex intact and interferes only with the connections between the frontal lobe and the dorsomedial (dm) nucleus of the thalamus by placing small lesions in the latter nucleus (Fig 1) In this way one may hope to avoid most of the undesirable side-effects, due to lesions of association systems, of the various frontal lobe operations, and to produce only beneficial effects on emotional disturbances This expectation is based on the assumption that emotional reactions are chiefly the result of an interplay between cortex and diencephalon and, in particular, between the frontal pole and the dorsomedial nucleus [1]

Our material was selected according to the usual criteria for prefrontal lobotomy Thirty-seven patients, mostly institutionalized cases of schizophrenia, depression, and severe compulsion neuroses, have been operated on by means of our previously described stereoencephalotome [2] Most of these patients were under psychiatric treatment for a period of from two to fifteen years and had been subjected to the various shock therapies without relief In two patients with obsessive compulsive neurosis, prefrontal lobotomies had been performed at other institutions without alleviating the disturbances

In group I (three cases), one or two small coagulations, about 3 mm in diameter, were produced on each side In group II (eight patients), five such coagulations were placed in each dorsomedial nucleus through three puncture canals In the remaining cases (group III) larger electrolytic lesions were produced bilaterally by means of a special electrode requiring only one puncture canal about 1 mm. in diameter on each side In the first postoperative days in groups II and III the patients often exhibited somnolence, more rarely restlessness, disorientation, particularly for time, memory defects, sometimes euphoria or apathy, and psychomotor retardation Tension, anxiety, depression, irritability, agitation, compulsive behavior, hallucinations, and, in some instances, paranoid delusions were favorably influenced, sometimes after a latent period of several weeks

The question may be raised Why are not only tension and anxiety relieved but also such symptoms as delusions and hallucinations? If one recognizes with Bleuler the dominant role of affectivity among psychic functions and the influence of emotional disturbances in the genesis of pathologic associations,[3] it becomes likely that lessening of tension and anxiety may also favorably influence pathologic associations and related symptoms However, it should be emphasized that operative procedures relieving emotional disturbances and allied phenomena do not

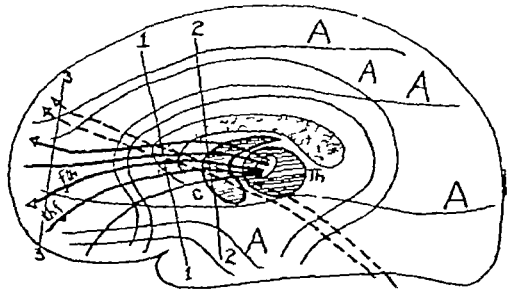


Fig 1 Schematic diagram showing that prefrontal lobotomies (1-1, 2-2) or topectomies (3-3) interrupt not only frontothalamic (fth) and thalamofrontal (thf) fibers, but also association systems (A) of the frontal lobe The same applies to transorbital lobotomy (also corresponds to 3-3) Thalamotomy tries to place lesions in the white area within the thalamus (Th) C represents the caudate nucleus.

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Comment

An attempt has been made to present the facts which have emerged from preliminary survey of one-year follow-up of 294 patients in the Connecticut Lobotomy Study Certain clinical impressions have been confirmed and others disproved Interpretation of much of the data is impossible at this stage However, a few leads are evident, and the assembly of facts provides a starting point for further study which should be carefully planned to answer specific questions The recording of cases on IBM punch cards provides us with figures for necessary statistical evaluation, but more importantly it enables us to index and find case material for more intensive clinical investigation that would otherwise be lost in a series of cases so large as to be unwieldy

With regard to the objective of our study—to provide better criteria for selection of patients for lobotomy—it must be confessed that the results are somewhat disappointing We have found that we still do not have absolute bases for predicting good or bad results The positive information which we have may be summarized as follows

Greatest improvement may be expected in patients with "normal," cyclothymic, or obsessive-compulsive personalities before their illness, with superior intelligence and good education, whose psychosis has been sudden in onset, following one or more previous episodes during which the large amount of convulsive therapy given may imply a tendency to remission and relapse, with a clinical picture characterized by affective symptoms of depression or anxiety, behavioristic changes such as refusal of food, overactivity, and delusional ideas of paranoid nature In regard to diagnostic categories, superior results have occurred in descending order as follows in the mood disorders, other nonschizophrenic conditions, paranoid schizophrenia, undetermined or mixed types of schizophrenia, catatonic schizophrenia, and lastly in the hebephrenic and simple types Illness and hospitalization of less than five years seem to indicate a better prognosis From our previous studies age and sex do not seriously influence results, although there is a slight margin in favor of the males and against the middle age group

It is obvious that lobotomy in many patients presenting these supposedly favorable criteria resulted in either success or failure For this reason it would seem wise not to regard such single factors as absolute criteria for or against lobotomy Multiple correlations to be carried out later may show significant relationships between various clinical features which will further clarify the indications for lobotomy The statistical nature of the study undertaken precludes expression of purely clinical opinions Indeed, the data suggest that these may at times be misleading, at least with respect to symptomatology However, until multiple correlations have been made, clinical judgment is the only means by which the numerous features of a patient may be synthesized to yield some prognostic conclusion

In this study it has not been possible as yet to include the plane and extent of surgical section, the influence of the family, or the rehabilitation measures undertaken by the respective hospitals. These undoubtedly play a most important role in determining therapeutic success or failure.

Our symptomatic review is by no means complete, and the descriptive categories used are so comprehensive that much valuable information has been missed It is tempting to try to expand on the data which we have, for example, to assume, because refusal of food is a good prognostic sign, that other forms of negativism might be equally favorable prognostic symptoms However, we believe rather strongly that such assumptions are not reliable and that it is better to admit the limitations in our knowledge of the factors that may indicate a good prognosis than to be misled by preconceived ideas In some clinics there is a definite tendency to vary the operation in accordance with certain symptoms which are believed to respond well to section of a particular area or segment This practice will undoubtedly continue, but until it has been demonstrated conclusively by statistical study, which takes into consideration all of the variables, that symptoms are associated with specific areas of the brain, we believe that for investigative purposes it is better to vary the operation only after a given procedure has been tried out on a large and varied segment of the patient population Unfortunately, even a standardized lobotomy operation does not meet these requirements fully, since, even in the hands of the same neurosurgeon, it is a varying procedure without neuroanatomic specificity

Lobotomy has proved a valuable addition to psychiatric treatment It is possible that it will be replaced eventually by more definitive surgical measures Such progress will occur only through careful clinical study, and, because of the complexities of adjustment between man and his environment, the data will require critical examination by every means at our command

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THALAMOTOMY AND MESENCEPHALOTHALAMOTOMY NEUROSURGICAL ASPECTS (INCLUDING TREATMENT OF PAIN)

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FOR nearly half a century the stereotaxic method of Horsley and Clarke has been used in experimental animals in order to produce subcortical lesions without significant injury to the overlying structures [1] Curiously enough, this method had not been applied to humans prior to our first communication, chiefly because in the animals used for this method (rat, cat, and monkey), it is sufficient to rely on the relationship between the coordinates of the skull and the part of the brain to be injured because of the relative constancy in the shape of the skull [2] In the human the great variability in the shape of the skull precludes such a simple application In the method developed by us (stereoencephalotomy) we have attempted to overcome the variability of the skull by using a landmark within the patient's brain as a reference point, namely, the pineal gland visualized by roentgenography or adjacent structures visualized by pneumoencephalography

Procedure

The apparatus, which we have called the stereoencephalotome, consists of two parts, superstructure and base The base consists of a ring upon which is mounted a plaster cast of the skull prepared individually for each patient The superstructure is a four-legged frame with a needle carrier which allows the electrode to be moved in any plane A newer modification eliminates the plaster cast and anchors the base of the stereoencephalotome to the skull by means of four rubber plugs or by four stainless steel pins which are inserted into small drill holes of the skull (Fig 1) The base of the apparatus is aligned so that its frame is parallel to a plane determined by the inferior border of the orbits and the external auditory canals, the so-called horizontal plane As already mentioned, the coordinates of the apparatus are referred to a point within the brain, namely, the pineal gland The patient is x-rayed with the apparatus in position and the relationship of the pineal gland to the electrode is established

In order to be able to reapply the base at operation in exactly the same position as it was during roentgenography, the following precautions are taken An additional superstructure containing five movable pins (one at the intersection of the sagittal and interaural planes, two in the sagittal plane, and two in the interaural plane) is mounted to the base, and the points of the scalp touched by the pins are tattooed before roentgenography Furthermore, the distance between the upper end of the tubes, in which the pins are movable, and the corresponding tattoo marks is measured Before operation the base has to be reapplied in such a way that the pins exactly touch the tattoo marks and that the above mentioned distances are the same as at the time of roentgenography If the pineal gland is not visualized, a pneumoencephalogram is done, and the electrode is oriented with reference to the suprapineal recess or other structures in the neighborhood of the third ventricle With this data and the aid of brain specimens sectioned in the planes of the stereoencephalotome, one can compute the coordinates necessary to produce the lesions desired, e g , the dorsomedial nucleus of the thalamus (thalamotomy [thy]) or the spinothalamic tract in the midbrain (mesencephalotomy [my])

Under local or endotracheal nitrous oxide-ether anesthesia the patient is placed in a sitting position and the base of the apparatus is applied An 8 cm transverse scalp incision is made, usually in the interaural plane A trephine opening is made just to the right or left of the midline and the superior longitudinal sinus is exposed The superstructure is applied to the base and the midline identified The dura is punctured 6 to 7 mm lateral from the midline, and the electrode is lowered at this point according to the measurements obtained from the roentgen film.

Lesions may be made either by electrolysis using direct current or by electrocoagulation using a high frequency current of the Davis-Bovie unit Two types of electrodes may be employed Where a small spherical lesion is desired, the electrode consists of a hollow stainless steel tube through which passes an insulated wire bared at its tip for a distance of 1 5 mm Where several large lesions are desired, the electrode consists of an outer insulated tube through which passes a stainless steel stylet The stylet may be withdrawn and the entire electrode rotated In this manner one can make several rosettes of lesions

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eliminate the as yet unknown, basic disturbance underlying dementia precox

Of the 37 cases, the first three may serve as controls showing that the operative procedures without sufficient lesions of the dorsomedial nucleus are not able to produce permanent emotional changes One patient each in groups II and III died In the last five patients, the postoperative period is too short to permit conclusions Of the remaining 27 cases, observed from four to twenty-two months after operation, five returned home with almost complete working capacity, ten returned home with reduced working capacity, seven are more manageable at the hospital, five are unchanged, and six have relapsed The relapses may be due partly to the smallness of the lesions, particularly in group II, and partly to the fact that other systems, perhaps frontohypothalamic connections, may also participate in the mechanism of emotions and compensate for the loss of the dorsomedial nucleus

In this respect it is interesting to note the case of an agitated, hallucinating schizophrenic who improved to such an extent after the first thalamotomy that he could be considered nearly normal One and one-half years after the operation he relapsed, again became hallucinated, and had to be readmitted in view of his catatonic excitement Since a second thalamotomy increasing the lesion of the dorsomedial nuclei failed to change his condition, it was decided to place a small lesion on either side of the posterior hypothalamus in a two-stage operation Following this procedure, he quieted down and became easily manageable Although he still shows schizophrenic traits and laughs inappropriately, he could be discharged from the hospital, and his parents are now trying to readjust him on a farm

Undesirable side-effects usually were rather slight, particularly since our improved technic permits one to produce the thalamic lesions through a single puncture canal on either side There was a slight ptosis of one eyelid for two days in one case, an impairment of upward movements of the eyes in three cases, a transitory unilateral weakness of the oral branch of the facial in two instances, and a slight weakness of one arm for less than one week in one patient The motility of one leg was twice impaired for two to three weeks in two patients, and the Babinski phenomenon was demonstrable in five cases of group II for less than two weeks This is probably due to the fact that the puncture canal passes through the region or the vicinity of the paracentral lobe In group III, where only one puncture was necessary on each side, there developed only once a weakness of a leg of two days duration Disturbances of sensation developed only in group II (once hypalgesia of one arm for five days, once ulnar hyperalgesia for two weeks) The so-called psychoreflexes were not affected.

In the vegetative sphere, the most frequent side-effect was incontinence of the urinary bladder (five cases in group II, ten in group III), lasting from a few days to two to three weeks A transient decline of the blood pressure was recorded four times, particularly marked in a case of hypertension where a drop from average values of 210/118 to 115/90 occurred In three patients there was a definite increase of appetite and weight

There was a small drop of the I Q in four patients in the first three weeks after operation, in the others tested the I Q remained unchanged or showed an increase, perhaps due partly to the relief from tension and anxiety which permitted the patient better concentration on his task. The mean I Q of all patients tested failed to show statistically significant changes * In three cases there were defects of memory lasting for several months, and in two cases a diminution of initiative was noted One of these patients had previously been subjected to prefrontal lobotomy at another hospital This latter patient is also more careless in personal appearance

One of the main objections raised against psychosurgery is the pronounced personality change, of which it has been said that the patient "loses his soul" It would seem that one of the chief advantages of thalamotomy is that a relief of emotional disorders may be obtained and that most of the undesirable personality changes following prefrontal lobotomy, such as distractibility, childishness, facetiousness, or a lack of tact or discipline, do not appear Since none or only minimal scarring of cortical tissue results, epileptiform convulsions did not appear in our material in either the early or later postoperative stages (observation up to nearly two years) The electroencephalograms showed either no changes or very slight transitory slowing, particularly in the frontal leads

We wish to express our sincere appreciation to Dr E L Sielke superintendent of the Philadelphia State Hospital Dr A P Noyes superintendent of the Norristown State Hospital Dr O S English professor of psychiatry Temple University School of Medicine Dr J F Stouffer chief psychopathologist Philadelphia General Hospital and their staffs for their kind help and interest.

* The psychometric studies were carried out by Miss R. Kooh, Mrs. F Nassfe Mr C Orchinik Mrs C Krusen Scholz Miss J K. Trasoff and Miss P C Walsh.

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asked about the pain, she admitted that there was still an area of pain around the buttocks, but she said, "I do not feel like yelling" After the state of confusion had subsided, she again complained spontaneously about this pain, but the pain area had receded from the entire leg to an area around the right buttock, and she no longer required narcotics, while before operation she required 100 mg of Demerol or 30 mg of Pantopon every three hours

Case 3.—This fifty-nine-year-old white woman also suffered from tic douloureux Following a retrogasserian rhizotomy performed ten years previously by another neurosurgeon, she still suffered attacks of severe pain about the right eye, radiating toward the right side of her nose Following unilateral mesencephalothalamotomy on the contralateral side, she experienced a considerable relief of her pain and has not had to continue with narcotics She developed a slight but distinct hemialgesia on the side opposite the lesions

In a review of these cases the first can be classified as a complete success and Cases 2 and 3 as partial successes, at least We were particularly interested in the problem of whether the addition of the thalamic lesion to that in the midbrain produced a state of indifference to pain transmitted by fibers that had escaped the mesencephalic lesion In this respect, Case 2, particularly, yielded valuable information During the state of confusion developing after the second operation a state of indifference, resembling, to a certain extent, that described by Freeman and Watts after prefrontal lobotomy, was observed [5] However, it subsided after some weeks, and the patient again complained about the pain spontaneously, although the pain area had receded and the intensity of the pain was diminished so that narcotics were no longer required It seems, therefore, that bilateral lesions of the dorsomedial nucleus produce only a transient state of indifference to pain We decided, therefore, in the following group of cases to limit the operation to lesions of the pain-conducting pathways in the midbrain (mesencephalotomy [my])

Case 4.—This forty-six-year-old woman had a carcinoma of the uterus with marked extension to surrounding viscera. The carcinoma was considered inoperable by the gynecologist She complained of severe low back pain which was aggravated by any movement of the lumbar spine Vertebral metastasis was not demonstrable by x-ray, but the pain was so intense that she had to lie quietly in bed in order to avoid severe pain by movement Following bilateral mesencephalotomy, there was a considerable reduction in pain, and she could move about and perform her household duties with only slight pain Narcotics were no longer necessary

Case 5.—This was an elderly woman with carcinoma of the uterus with extensive metastasis to surrounding viscera resulting in a rectovaginal fistula and a so-called "frozen pelvis" The pain was chiefly in the lumbosacral region and was not relieved by large frequent doses of morphine Following bilateral mesencephalotomy she experienced complete relief of pain for three weeks At this time she fell while going to the bathroom, at which time the pain returned but only in a mild degree Demerol, 100 mg once or twice daily, was sufficient to give her relief

Case 6.—A sixty-three-year-old white man with inoperable carcinoma of the bladder complained of severe penile pain, particularly following micturition Morphine in 15 mg.-doses every fourth hour gave only partial relief Following bilateral mesencephalotomy there was a definite reduction but not complete relief of pain His pain could now be alleviated with Demerol in 100-mg doses.

In this second group it seems that lesions of only the pain-conducting pathways in the midbrain, without thalamic lesions, may be able to reduce the pain of these patients sufficiently to make their conditions tolerable The omission of thalamic lesions has the advantages of smaller lesions being performed with the avoidance of the transitory state of disorientation for time and temporary memory defects

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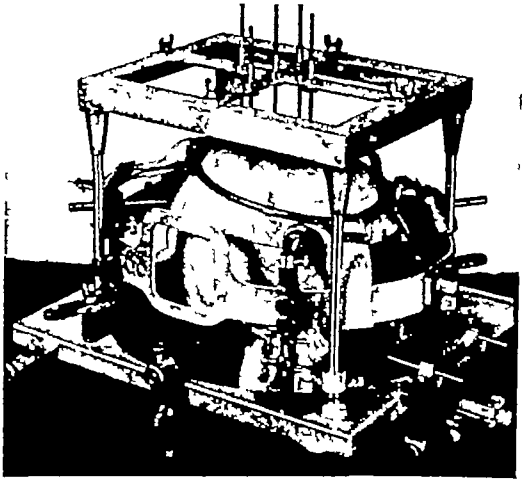


FIG 1 Base of stereotaxic apparatus with superstructure containing 5 pins for checking of proper position

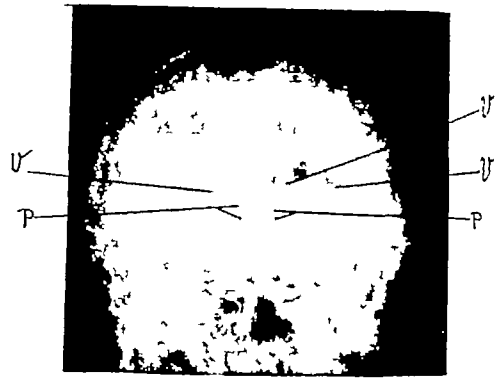


FIG 2 Pantopaque in the puncture canal (P) on either side of third ventricle, V marks pantopaque in the lateral ventricles

at any desired level, all through a single puncture With this electrode the lesions are produced by electrolysis When the final lesion is made, a droplet of pantopaque or lipiodol may be instilled through the stainless steel tube and its position verified by x-ray postoperatively (Fig 2) In some instances where there is residual air in the ventricle one can ascertain the position of the electrode by recording subcortical potentials as the electrode passes through the lateral ventricle

Stereoencephalotomy has been applied not only for the treatment of mental disorders, but also for unbearable pain unrelieved by other procedures [3] The pain-conducting pathways (spinothalamic and trigeminothalamic tracts) can be interrupted in the midbrain where they lie close together near the dorsolateral surface of the midbrain Walker performed such lesions by means of his mesencephalic tractotomy [4] This operation necessitates a major craniotomy with elevation of the occipital lobe Even in very skillful hands this procedure may be followed by undesirable side-effects, such as softening of the occipital lobe By means of the stereotaxic method, a procedure has been developed whereby lesions of the spinothalamic and trigeminothalamic tracts are made, alone (mesencephalotomy [my]) or in combination with lesions of the dorsomedial nucleus of the thalamus (mthy), without significant injury to the overlying cerebrum [2] In the midbrain the spinothalamic and trigeminothalamic tracts lie close together and may be reached by punctures in a frontal plane, 1 to 2 mm behind the pineal gland

In the first group (three cases), lesions of the pain-conducting pathways in the midbrain (my) were combined with lesions of the dorsomedial nucleus of the thalamus (mthy) Since lesions of the long pain-conducting systems (such as the spinothalamic tract) may leave accessory path ways intact, the thalamic lesions were added to the mesencephalotomy in the hope that the thal amic lesions would produce a state of indifference to remaining pain similar to that observed after prefrontal lobotomy by Freeman and Watts [5]

Case 1 —This forty-seven-year-old white woman was diagnosed seven years prior to admission as having tic douloureux for which she underwent a retrogasserian rhizotomy by another neurosurgeon. Her pain was lightening-like in character and localized in the right face and temple, it was aggravated by the operation so that she complained frequently and bitterly Morphine in 15 mg -doses several times daily failed to relieve her Following unilateral mesencephalothalamotomy on the left side, the pain disappeared except for occasional paresthesias around the right eye She had a right-sided hypalgesia which lasted several months and then subsided. However, the pain did not reappear, and she has been free of this symptom since her operation eighteen months ago

Case 2 —This was a thirty-four-year-old white woman with severe diffuse burning pain of the right lower extremity following spinal trauma. Several disk operations, bilateral chordotomies, rhizotomy, sympathectomy, and intraspinal injection of alcohol did not relieve her Since a first mesencephalothalamotomy was insufficient to relieve her, a second operation was performed Following the second operation, the patient presented first a picture of confusion, particularly a disorientation for time, memory disturbances, and psychomotor retardation. During this stage the patient was rather indifferent to pain in that she did not complain about it When

each, one patient has had four seizures, and in all cases these were controlled by appropriate medication which could be discontinued about six to eight months after operation A fifth patient (Parkinson's disease with marked cerebral atrophy) had several convulsions before adequate medication could be prescribed

The patients were usually alert and able to take nourishment on the first postoperative day, although many (particularly the schizophrenics) were slow to finish meals and had to be encouraged to eat In most instances the patients were able to be up and about the ward by the fourth day after operation, and discharge from the hospital was usually on the ninth to fourteenth day

Material

The 42 cases included in this report were all private patients, most of whom were operated on at the Neurological Institute of New York. The first operation took place in October, 1946, and all the patients have been followed, personally or by mail, for at least six months after operation Some of the cases have been reported in other publications [2,3,7] In every case, when operation was undertaken, the individual was already hospitalized in a mental institution, or hospitalization was imminent and operation was undertaken to forestall institutionalization if possible

The patients ranged in age from twenty to sixty-nine years at the time of operation Sixteen of the patients were men, and 26 were women The shortest duration of illness was one and one-half years, while the usual duration was much longer, ranging up to twenty years

Except for two patients, shock treatment had been tried without success in all of these individuals, and in these two patients it was felt that the schizophrenic process was too malignant and progressing too fast to postpone operation Such psychotherapy as was available had been tried in all cases (including psychoanalysis in several), and it appeared to have little more to offer these patients in their preoperative state Briefly then, the outlook with any of the usual types of therapy was poor in these individuals, and all of the illnesses carried a grave prognosis

By far the larger number were diagnosed schizophrenia (32), and among the schizophrenics the paranoid form of the illness predominated (15) Many of the patients did not fit easily into the usual subcategories of schizophrenia and have, therefore, been listed according to the predominating form of behavior disturbance or symptom formation (Table 1) The nonschizophrenic cases fell into the group of affective disorders

TABLE 1 —SOCIAL AND VOCATIONAL STATUS OF 42 OPERATED PATIENTS WITH FOLLOW-UPS OF SIX MONTHS OR LONGER

	Number of Cases	Social Rating* 0	1	2	3	4
Schizophrenia						
All types	32	10	4	7	5	6
Paranoid	15	4	2	5	1	3
Catatonic	3	2				1
Hebephrenic	7	3	2	2		
Compulsive features	3				1	2
Hysterical features	2	1			1	
Simple	1				1	
Unclassified	1				1	
Nonschizophrenic Cases						
All types	10			3	2	5
Agitated depression	2			1		1
Involutional psychosis	2				1	1
Manic-depressive psychosis	1					1
Parkinsonism reactive depression	2			2		
Obsessive compulsive neurosis	2				1	1
Psychopath, drug addiction	1					1
Total	42	10	4	10	7	11

* Key 0—no improvement 1—patient was still institutionalized but more easily manageable 2—patient was capable of supervised living at home or in an institution (ground parole) 3—patient was at home and working or capable of working at a level below his pre-illness capacity 4—patient was at home and capable of functioning socially and vocationally at a level as good as his pre-illness capacity

(seven), obsessive-compulsive and phobic neuroses (two), and psychopaths (one)

Psychiatric Management

Immediately after operation and for a variable amount of time extending up to several weeks, the patients went through a period in which they could be described as distractible and hollow For several days or a week after operation there might be outbursts of anger or resentment, but the patients were usually cooperative, correctly oriented, and presented no great problem in management As soon as they were able to get out of bed, they were encouraged to participate in occupational therapy, to go for walks with the nurse, and to attempt other activities before they left the hospital at the end of the nine- to fourteen-day period Further handling depended on the patient's condition and the sociologic setting which was available after discharge Whenever the family was sympathetic and able to undertake his care, the patient was returned home, since we believe that progress is quicker when there is someone available on whom the patient can lean for support and when he is returned to the stimulating surroundings which everyday living affords In cases where too much psychopathology remained immediately after operation, care at a rest home, convalescent farm, or sanitarium was recommended for a period of several months When this was done, it proved highly desirable that the patient should not be returned to a regime of routine handling along with other chronic psychotics Under

RESULTS OF TOPECTOMY IN THE TREATMENT OF PSYCHIATRIC CONDITIONS

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THE name topectomy (Gr *topos*, place, *ektome*, to cut out) was first used by the investigators of the original Columbia-Greystone project in March, 1948, to apply to the bilateral, symmetric removal of a portion of frontal lobe cortex [1] In earlier publications by Heath and Pool the same procedure has been referred to as fractional ablation of frontal lobe cortex [2,3] Penfield has referred to a similar procedure as gyrectomy, a term which suggests removal according to the anatomy of gyri [4] Since the operation, which is the subject of this paper, is not carried out on that basis, we have chosen to use the less specific term of topectomy

Operative Procedure

The experimental work of Mettler and Richter and Hines, as well as the clinical observations of the Columbia-Greystone Associates, led to the development of the present technic [5,6] Operation is now carried out by turning a single bone flap and exposing the frontal cortex The rostromedial portions of Brodmann's areas 9 and 10 are then resected on both sides (Fig 1) ** The removal includes those portions of areas 9 and 10 which lie on the medial surfaces of the brain, and resection is carried as far as the depth of the gray matter only, sparing white matter entirely except for small portions which extend into the resected convolutions themselves The amount of tissue removed in this way is approximately 25 to 35 Gm on each side

Fifteen of the patients included in this series had area 9 alone removed, since they were operated upon early in the development of this technic Five of this group subsequently had a second operation in which area 10 was removed after they failed to maintain improvement following the ablation of area 9 alone Three of these five made and maintained significant improvement after the second operation This fact, as well as experience gained from the Columbia-Greystone series, led to the standardization of the operation as it is now practiced

Additional data concerning the operative technic have been submitted for publication, but it may be seen even from this brief description that the amount of gray matter sacrificed by topectomy is far less than the amount disconnected by the conventional lobotomy and is probably somewhat more than the amount disconnected by a transorbital lobotomy [7-9] However, as compared with either of the lobotomy operations, topectomy would appear to offer the advantages of an open procedure, in which the operative field is clearly visible at all times and bleeding can be well controlled

Operative Results

Among 95 patients operated on to date by Pool there have been no operative fatalities Among a total of 130 patients who have had topectomies performed by various neurosurgeons, we have learned of only one operative death, making an over-all mortality of less than 1 per cent None of the patients in the present series has had any serious complications as a result of operation. Prolonged or permanent incontinence has not occurred Three patients have had two seizures

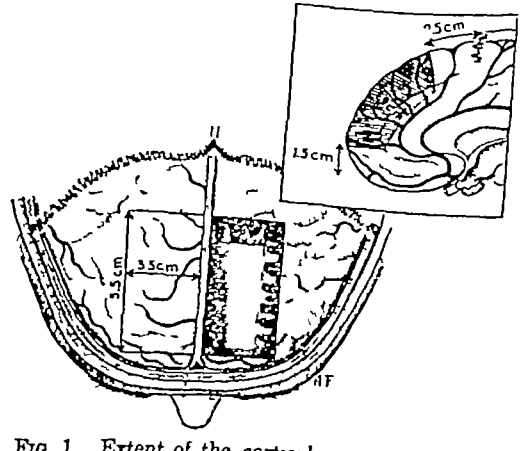


FIG 1 Extent of the cortical removal (viewed from above) Insert indicates the extent of the removal on the medial surface.

* By invitation.

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** The use of Brodmann a chart in selecting the operative site is not meant to imply that the authors accept this map as being physiologically significant Brodmann s designations were taken only because they are widely known and any other standard system of topography could serve equally well as a guide for the operative removal.

functioning, thus making a more constructive and self-satisfying life possible in spite of inherent handicaps Patients with affective illnesses and obsessive-compulsive neuroses present a different picture in that these individuals are usually well-organized (even rigid) before illness and are capable of achieving some sort of interpersonal relations and emotional rapport with others The repression of anxiety and other unpleasant emotions plays a more specific part in the genesis of their illnesses, and, therefore, operation with its release of emotional tension is of greater value Integration is better achieved in this group than in the schizophrenics, and the results of operation are, therefore, more gratifying

We have come to regard the effect of operation as one associated with alteration of affective responses Objectively, the patients appear more relaxed immediately after operation, and subjectively they express the change in themselves in phrases such as "I don't feel as tense as I used to, things don't bother me so much now," etc There does not appear to be any blunting of emotional responses associated with personal relations with other people, and they continue to react appropriately with fear, anxiety, weeping, and rage when these emotions are called for by environmental stimuli There is, however, a marked reduction in their response to painful memories associated with the past which is accompanied by increased ability to verbalize distressing incidents which had previously to be repressed It may take considerable time for the patient to accept and act upon this change in his emotional responses even though he may verbalize the difference in his feelings immediately after operation Improvement in behavior and symptomatology, therefore, occurs gradually in most instances, and changes may be expected six months after operation or even longer, while the patient is testing out his newly acquired emotional freedom and making steps toward integrating without having to labor under his former tension

Results of Operation

It is difficult to arrive at a quantitative evaluation of psychiatric improvement following any type of supposedly therapeutic procedure, and this difficulty is just as great when considering psychosurgery patients as it is with other forms of treatment We have chosen to grade the patients numerically according to their social and vocational adaptation after operation, realizing full well that this is not a complete account of the changes which occurred following surgery (Table 1) For some patients and in some conditions, the rating of 2 (indicating that the patient is capable of supervised living, at home or in an institution) is an indication of great strides toward improvement For others, a top rating of 4 is actually less of an achievement In addition, there are differences in individual adaptation which cannot be reflected in such ratings Thus, the schizophrenic patient retains a schizoid personality structure even in the most successful cases, but this may not seriously interfere with the patient's social and vocational adjustment, and a top rating may, therefore, be possible The obsessive-compulsive patients, on the other hand, retain their rigidity and their dependence on meticulous performance, even though they lose most or all of their presenting compulsions, Such traits are not reflected in a numerical rating

In all cases improvement took place gradually over a period of many months, except for overt anxiety which was immediately diminished by operation Depressions and obsessive-compulsive symptoms also had an initial prompt response to operation, but the postoperative course of these patients showed further, more gradual improvement of their symptoms with the passage of time In the case of schizophrenics there was often an increase in symptomatology immediately after operation followed then by the usual period of gradual improvement In some cases, this progressed to a point where psychotic material was difficult to obtain even when the patient was being seen frequently in follow-up sessions In other patients, delusions and hallucinations persisted in their old form but were not spontaneously expressed or were expressed without any emotional intensity or any desire to act upon them In those schizophrenics who did not improve, psychotic behavior, including delusions and hallucinations, remained apparently unaffected by operation

Two patients (both schizophrenic and in one of whom a diagnosis of postencephalitic behavior had been suggested) had topectomies performed after a conventional lobotomy had already been carried out unsuccessfully No improvement resulted in either of these cases

Two patients relapsed after achieving ratings of 3, six months after operation Both had to be rehospitalized about one year after operation

Indications for Operation

The present series of cases includes many patients with complicating organic brain disease as well as chronic, deteriorated schizophrenics on whom operation was carried out as a last resort Experience has shown that little gain can be expected after topectomy in such patients, and our present view is that the patients who are most suitable candidates for this procedure are those with the following disorders (1) obsessive-compulsive and phobic neuroses who have not

such conditions there is little opportunity for identification with healthy individuals, and the patients tended to regress into their old patterns This was particularly true of schizophrenics in whom the pattern is frequently one of imitating the behavior of those about them When sanitarium care has been thought necessary, a program similar to "total push" has been recommended with the emphasis being on reviving old interests and creating new ones

Sanitarium care was also resorted to with many patients whose families were unwilling or unable to accept the patient at home In such cases, the impersonal atmosphere of an institution, no matter how well managed, sometimes served to increase the feelings of rejection which already existed It was sometimes helpful in these cases to board the patient at a private home with a psychiatric nurse or some other capable and understanding person, and in several instances the results of such handling were most gratifying

Psychotherapy was carried out on every patient for whom it was practically feasible, and it was begun while the patient was still in the hospital In most instances, the patients were too shallow to make reconstructive therapy possible immediately after operation, and the psychiatric handling was superficial and reassuring at this time Psychotic material which was previously latent sometimes came out during these first days, however, and the information gained was of considerable value to the psychiatrist later on in treatment Subsequent psychotherapy varied widely in its intensity, type, and quantity among different patients Some of them returned to the care of referring psychiatrists and analysts in and around New York. Among those who were followed by the authors, an attempt was made to achieve some insight into the basic problems of illness and to support them in their attempts to achieve a more realistic adjustment to life The schizophrenics received the most psychotherapy by and large, although the emphasis in this group was largely supportive and less directed to the achievement of insight Among the obsessive-compulsive and phobic patients, psychotherapy was sometimes helpful in gaining understanding of the basic mechanisms of illness, and in this group it was usually possible to discuss material which would not have been available before operation because of the profound anxiety with which it was associated Involutional psychotics and depressed patients received the least amount of psychotherapy and, in general, seemed to require it less than did the other patients

Regardless of the type of illness, the attitude of the family toward the patient and their handling of him seemed to be of great importance. Kind and sympathetic assistance in the period of readjustment was of great help Conversely, a rejecting family or an overdemanding or over solicitous one could be a great obstacle to the patient's recovery Whenever possible, the family was coached on the nature of the problems which the patient would be facing and was offered practical suggestions on how to handle them

Evaluation of Personality Changes Following Topectomy

In any psychosurgery operation the achievement of desirable personality changes poses a challenge in attempting to describe the nature of the changes observed and the means by which these changes occurred Topectomy has provided a unique opportunity for such study, since these discrete cortical removals have not resulted in gross deterioration of personality function in any patient It has, therefore, been possible to concentrate more closely upon the changes which accompany improvement and the way in which these changes are apparently brought about. Reports from families of patients followed at least one year after operation, as well as clinical follow-up interviews, have not demonstrated that operation produces any loss of conscientiousness, social responsibility, or initiative Wechsler-Bellevue intelligence tests have not consistently revealed a loss (even though most of the retests were done in the period seven to ten days after operation), and in some patients there has been an actual increase in I Q, presumably a reflection of decreased preoccupation with psychotic material following operation

The clinical course following topectomy shows considerable variation depending upon the type of patient operated, and we feel it necessary to stress this factor of individual variability if the effect of operation itself is to be understood at all In the light of clinical experience with topectomy, it now seems clear that the psychopathology, personality organization, and adaptive patterns of the patient who is operated on must be considered, as well as the nature of the operation itself, if any light is to be shed on the meaning of the personality changes consequent to surgery For practical purposes, this problem is most important in considering the schizophrenic patient as opposed to the patient with an affective illness or an obsessive-compulsive neurosis In the case of the schizophrenics, operation is carried out on a patient whose integration is already loose, whose adaptive mechanisms are faulty, and whose effective avenues of emotional expression are limited Operation cannot change these basic factors, and all that can be hoped for is that a maximum utilization of assets can be achieved by relieving the affective pressure under which the patient is

A COMPARISON BETWEEN VARIOUS FORMS OF PSYCHOSURGERY

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BEFORE one can draw any useful conclusions about the usefulness of the various forms of psychosurgery more or less widely employed, it is necessary to come to some conclusion about how any form of psychiatric therapy can be evaluated In attempting to evaluate any form of therapy—either psychiatric or more broadly medical—one needs to establish certain specific definitions and criteria

Criteria for Evaluating Therapy

1 The condition to be treated must be qualitatively and, if possible, quantitatively defined Ordinarily, the qualitative aspects of such a definition will include objective demonstrations of all pertinent etiologic and pathologic circumstances In the case of psychiatric disorders it is difficult, if not impossible, to proceed beyond impressions and often purely personal estimates of etiology and "pathology" Under ordinary circumstances physiologic and chemical tests afford many opportunities to express the extent of the disorder in a quantitative manner This is still not feasible in psychiatry, but the quantitative aspects of the temporal circumstances of psychiatric disorders, at least, should be given in some consistent and meaningful manner If one is concerned with limited aspects of a broader condition, these limited aspects should now be defined further

2 The next requirement is an estimate of the degree of accuracy with which the condition to be studied can be diagnosed and how accurately the precise phases to be studied can be known to exist It is, in other words, of no practical use to construct an elaborate definition which is unclear and difficult of application. The mathematical possibility of effectively applying the definition to a large number of cases chosen at random should be known.

3 Having defined the nature of the condition to be treated, having determined the precise segment of it which is to be studied, and knowing how confident one can be in applying these definitions, it is necessary to ascertain what "spontaneous" fluctuations may occur in the studied segment of the condition Is spontaneous cure possible, and if not, what is the range of improvement which can be expected in a large number of comparable cases? How long does such improvement last, and how notable is it? If such observations can be quantitated, they should be

4 With the above information at hand one must now establish how the fluctuations of the process under study are affected, not only by the therapy to be evaluated but also by a reasonable number of the other nonspecific operational aspects of the therapy, which aspects might be expected to exert an influence on the processes under study For example, psychosurgical procedures involve considerable operational pother beyond the actual surgery What influence does this exert?

While the above criteria can be accurately applied to a large body of medical therapeusis, these criteria require to be supplemented wherever the nature and extent of improvement are themselves obscure If it is necessary to inquire, as it certainly is in psychiatry and in the case of certain recalcitrant chronic diseases, whether a particular change in the patient's condition constitutes real improvement, then it is surely necessary to establish a specific and exclusive definition of improvement Such a definition should state what varieties of alterations are not to be considered improvement, as well as wherein improvement consists. The definition should be of such a nature as to render improvement expressible in an objective and preferably measurable manner, and the factor of error in arriving at an estimate of the existence and degree of improvement should be stated

To recapitulate The degree of accuracy with which the particular aspect of the condition to be treated can be defined must be determined and so must the degree of accuracy with which the existence and extent of improvement can be determined To determine the influence of spontaneous change and the nonspecific effects from the therapeutic procedure, two or three comparable groups of cases should be established under comparable conditions One group should be followed to determine the degree of spontaneous improvement which may occur, and another should receive the specific therapy to be evaluated If a third group exists, it should be subjected to all the nonspecific aspects of the therapeusis to be evaluated.

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responded to psychotherapy, (2) affective illnesses including involutional psychoses and manic-depressive psychoses who have not improved with psychotherapy and shock treatment, and (3) schizophrenics in whom some degree of appropriate affective response remains and in whom emotional tension appears to play an important part in the production of symptoms Those schizophrenics, whose illness came on very early in life and who had been capable of little achievement before they broke down, appear to do poorly after operation Apparently, the genetic (constitutional) element in such cases is too large and the capacity for integration too small to make topectomy of value In general, the hebephrenic type of schizophrenia has responded least well to operation, while the paranoid and catatonic patients have shown more impressive improvement We do not feel, however, that the choice of operation can be determined on the basis of clinical subcategories alone The extent to which the symptoms are circumscribed, related to emotional tension, and free of markedly regressive, reparative features appears to be of greater importance in predicting the eventual outcome after operation.

We continue to feel that operation should not be carried out until psychotherapy and shock treatment have been tried first, as these procedures may be indicated by the specific condition. Shock treatment, whether insulin or electroshock, should not be excessively prolonged This is particularly important among the schizophrenic patients, since regression and emotional deterioration may proceed, even during shock treatment, to a point where operation is no longer of value Electroshock is frequently resorted to among obsessive-compulsive patients who are resistant to psychotherapy In our experience, it has not helped these patients and may cause further difficulties by interfering with memory The obsessive-compulsives do respond well to topectomy, however, and since recovery comes with no apparent impairment of personality function, one may question the necessity for subjecting this group of individuals to shock treatment before operation is advised

As a final comment on shock treatment and the choice of patients for operation, it should be added that a favorable temporary response to shock treatment appears to be a good prognostic sign for the outcome of operation Although far from infallible, this has been useful to us and appears to be a point worth taking into consideration when taking the history

Summary

1 The development of topectomy and the technic of operation are described briefly

2 The effect of operation in altering the course of illness is evaluated in terms of affective change associated with painful memories

3 Results of operation are given for 42 psychiatric patients who were followed at least six months after operation.

4 Suggestions are made concerning the choice of patients for whom operation is to be recommended

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from psychosurgery Patients who show few or no lucid intervals and who are extensively deteriorated cannot be expected to show much benefit There is no reason to believe that these circumstances vary with different forms of psychosurgery

Psychosurgery in the Individual Case

Little definitive evidence has so far appeared to show that benefit from psychosurgery follows conventional diagnostic lines In general, cases exhibiting "tension" or "painful affect" may be expected to show a lessening of this In the present writer's opinion it is worth making an attempt to arrive at an estimation of the apparent source of the patient's disturbance and to determine whether this is apparently of endogenous origin or whether he seems to be overresponding to real external stimulus situations It is my personal impression that cases showing the greatest concern with themselves, their sensations, delusions, hallucinations, or personal productions tend to lose such concern as a result of psychosurgery, but that patients who are overresponding to external stimulation may actually show an exaggeration of this tendency It is only fair to say that there are those who disagree with this point of view, which regards deprivation of frontal tissues as a process which "externalizes" the patient and directs his attention outward and which is, therefore, undesirable when the patient is already abnormally extroverted

Whatever view we take of these matters, there is still no evidence to indicate that any one of the psychosurgical technics acts in a manner fundamentally different from any other in so far as "improvement" is concerned, and it is by no means certain that all aspects of "improvement" are causally related to operation

"Adverse" Effects of Psychosurgery

The principal differences which have thus far emerged between the various forms of psychosurgery are in the nature of variations in number and extent of undesirable effects

Disregarding leucotomy by coring, which has now generally been abandoned as likely to yield unpredictable results, and lobectomy, which does not give results essentially different from complete lobotomy and is technically less satisfactory, the highest death rate and greatest number of "undesirable" effects, such as incontinence, inertia, and inability to care for oneself, occur after complete radical lateral transcranial lobotomy By rendering the operation less complete and thus less drastic, the death rate and number of "undesirable" phenomena can be substantially reduced When only the frontal poles are disconnected, as in transorbital lobotomy, the death rate is negligible and "undesirable" signs are difficult, if not impossible, to detect The death rate in topectomy is nil, and "undesirable" phenomena can be entirely avoided While adequate data are still not available, the same should be true of thermocoagulation and of undercutting of the cortex Thalamotomy seems to carry a higher death rate

It should be recalled, in passing, that there are occasions, as in suicidal cases, where "undesirable" phenomena, such as inertia, may be just what one wants to produce In such cases none of the other technics can be expected to yield the results obtained by drastic lobotomy

Postoperative Convulsions

Thus far it would appear that the highest incidence of convulsions may be expected after radical lobotomy and the fewest after transorbital lobotomy, with topectomy occupying an intermediary position depending on the location ablated Undercutting of cortex should be in the same class with topectomy and thermocoagulation safer than either Data on thalamotomy are still incomplete

In the case of lateral transcranial lobotomy, reoperation produces a very high percentage of convulsions If it is anticipated that failure may attend an initial operation, a drastic lobotomy should be performed immediately, or else the initial operation should be of a type other than lobotomy

Pain

The literature on the effect of psychosurgical technics on intractable pain is still fragmentary and obscure but suggests that almost any psychosurgical procedure may give equally satisfactory results Apparently, it is immaterial whether the operation is bilateral or unilateral, and, if the latter, also immaterial which side is selected for operation, even though the pain be unilateral Such data indicate their own unsatisfactory nature One of the difficulties with the literature of this subject is that really adequate determinations of the threshold for pain have been arrived at in only a small number of studies On the whole, the effect of psychosurgery on pain is rather unpredictable

Physiologic Effects of Psychosurgery

The amount of factual material to indicate what effects psychosurgery produces is so slight that there is little to be gained from theoretic speculations about the differences between the various forms of psychosurgery thus far introduced

In theory, lobotomy differs from topectomy, undercutting of cortex, or thermocoagulation by

Does Any Form of Psychosurgery Exert a Beneficial Effect?

That cases do "improve" after psychosurgery no one will deny, but there will be much argument about the nature of such "improvement" It is by no means clear how many patients who have been subjected to psychosurgery would have improved without it, nor is it at all certain whether the so-called improvement is significant, piffling, or even existent Moreover, there are those who feel that the patient subjected to psychosurgery has lost more than he has gained In any event, to say that some patients do improve after psychosurgery is not particularly edifying, since cases also improve after electroconvulsive therapy, insulin coma, metrazol shock, psychotherapy, or when left to themselves without benefit of any "therapy" Thoroughly satisfying figures, demonstrating the degree of efficacy of any existing technic of psychiatric treatment, are lacking Worse still, it is very difficult to come by reliable information which would enable one to evaluate the accuracy of methods of psychiatric diagnoses or the mathematical value of prognoses in that field Such uncertainties, familiar enough to the psychiatrist who picks his way about with evasive caution, constitute a quagmire in which the neurosurgeon attempting to evaluate his results soon flounders Until psychiatrists are able to develop adequate technics for the objective and incontrovertible evaluation of therapy or until this is done for them, it is obviously impossible to compare the subtler aspects of the different psychosurgical approaches In particular we know little or nothing about the most critical question of all, "Why does psychosurgery have a beneficial effect in those cases in which beneficial effects have been reported?" One might also be tempted to add, "And are such beneficial effects related to the performance of such psychosurgery?"

Influence of Duration and Nature of Illness on Improvement After Psychosurgery

On the last point mentioned in the previous paragraph it is possible to develop some information which, even though it would not enable us to determine whether an operation had been of value in a particular case, may indicate what probability exists for a lack of such a relationship Thus, if one considers discharge from an institution as a measure of improvement, psychosurgery should produce results superior to the known rates of discharge which were obtained prior to 1940 (since before that date few, if any, discharges could have been attributed to psychosurgery) According to Landis and Page the pertinent percentages of discharges within the first twelve months after admission, prior to that time, may be expected to be approximately as follows for psychoneuroses, 70 to 75, for manic-depressive psychoses, 65 to 70, for involutional psychoses, 40 to 45, for schizophrenia, 25 to 30, or for mental diseases as a whole, about 40[1] After the first year of institutionalization the percentage of discharges falls and, although continuing perceptible, is small after the third year It is clear enough that in using discharge of institutionalized patients as a measure of their improvement, one is dealing with the terminal fragment of a curve which begins at a very high level and rapidly flattens almost to a plateau after three years of institutionalism It is obvious, if discharge is related to improvement, that the rate of improvement must be very much higher in patients who have not progressed to the point where institutionalization becomes necessary or advisable Bearing in mind that the criteria used for reporting improvement after psychosurgery often have quite different implications from those in which discharge from an institution is used as a measure of improvement, the present author is aware of no body of reliable data which indicates that any psychosurgical technic produces, in a large group of noninstitutionalized cases or cases institutionalized for less than three years, results which are superlatively better than can be achieved by other methods of therapy or even by no therapy at all While psychosurgery may actually be capable of a more favorable showing, the data have not yet been brought forward to prove this, and to find the benefits to be derived from such procedures, one is forced to the entirely unreliable practice of particularizing about individual cases or dealing with cases in the aggregate which have been institutionalized for at least three years

Psychosurgery in the Chronic Institutionalized Case

Although results in Schrader's early series of lobotomies indicated that better than chance improvement could be obtained in chronic institutionalized patients, the majority of early writers in this country tended to avoid the chronic institutionalized case Recent statistics, however, indicate that the results obtainable in cases of this sort are really better than were originally anticipated Topectomy (ablation of restricted amounts of cerebral cortex) evidently is also capable of giving better than chance results in chronic cases Transorbital lobotomy is not thought to be so useful in late as in early cases Little is yet known about what the other forms of psychosurgery may yield in chronic cases

Among chronic institutionalized cases those who have shown favorable reactions to shock therapy are most apt to show beneficial effects

THE PLACENTAL STAGE AND POSTPARTUM HEMORRHAGE

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HEMORRHAGE is one of the three principal causes of maternal mortality and in some areas ranks first These deaths are either preventable or have preventable factors Some of the patients do not die from the hemorrhage, but their resistance is lowered to such a degree that they succumb to infection There are no figures available as to the incidence of postpartum hemorrhage for the country as a whole, but, since the number of hemorrhages in teaching hospitals is still 1 per cent or more, the incidence for the country must be considerably greater The vital statistics for 1946 showed that, after omitting abortions, ectopic pregnancies, and patients dying undelivered, there were 3,530 women who died from maternal causes Infection accounted for 30 per cent and toxemia 21 per cent, 13 per cent died from hemorrhages of childbirth and the puerperium and 9 per cent from placenta previa or abruptio placenta Postpartum hemorrhage will always occur However, proper instruction as to the conduct of the placental stage will not only reduce the incidence of this complication to a minimum but will prevent maternal mortality Doctors must acknowledge that death from postpartum hemorrhage is preventable in all hospital services and even in home deliveries If death does occur, the doctor must admit his error or possible culpability at the staff meeting

Gordon studied the 286 maternal deaths in Brooklyn for the period 1937 to 1941 and noted that the death certificates gave hemorrhage as the cause of death in 28 per cent, but, when the patients' records were reviewed, hemorrhage accounted for 41 per cent and was number one "killer"[1] Grimes and coworkers in 1948 reported that in Georgia hemorrhage accounted for 13 per cent of the maternal deaths in 1936 and 31 per cent in 1947[2] Four per cent of our deaths and 9 per cent of the maternal deaths at the New York Lying-In Hospital over a fourteen year period were due primarily to postpartum hemorrhage[3,4] On our service the hemorrhage was an important contributory factor in another 4 per cent These are preventable deaths

On our service 16 per cent of the cases of fatal postpartum hemorrhage were due to retained placental tissue and 36 per cent to atony (no other demonstrable cause) This latter group is much larger in the nonfatal cases and is of particular concern because a properly conducted second and third stage of labor will prevent almost all of these hemorrhages

Studies of deaths due to postpartum hemorrhage by Beecham in Philadelphia, by Glass and Rosenthal in Brooklyn, New York, and by other investigators in Chicago, reveal the following factors

1 There are usually two or more hours between delivery and death—sufficient time for adequate therapy

2 Blood loss is markedly underestimated

3 Doctors are opposed to manual removal of the placenta and to examination of the uterine cavity, even if there is bleeding or possibility of retained placental tissue

4 There is too much reliance on repeated injections of oxytocic drugs

5 Blood transfusions are given too late and are too small in quantity[5-7]

Some of the case abstracts read as if they were taken from hospital records of the last century Apparently nothing was done for some of the patients who died Glass and Rosenthal report a patient who was transferred to her room with the placenta retained and found dead in bed from hemorrhage thirty-six hours later[8] They also report five deaths due to inversion of the uterus Allen and coworkers report four cases, three of which occurred in 5,000 deliveries[8] Johnson reports nine cases[9] The senior author has been in a maternity hospital since 1921 as house officer or member of the staff in a full-time capacity and has never seen an inversion of the uterus Only one occurred during the twenty-eight years

Several tragic cases of postpartum hemorrhage resulted in a recommendation from the Chicago Maternal Mortality Committee that every hospital with an obstetric service must have a procedure established by which, if the patient's doctor could not be reached in an emergency, some *qualified doctor must see the patient within an hour*

In the past two years there have been at least four reports on the management of the placental stage There still is uncertainty about it and especially fear of invading the uterus Joyce and Lennon in 1948 reported that at Oxford in

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virtue of preservation of the associational connections It is difficult to see why preserving a few association fibers would be of any value in view of the necessarily larger number of projection fibers which are sacrificed in lobotomy It has also been said that lobotomy severs primarily the thalamocortical radiations of the medial nuclear mass and thus interrupts a circuit proceeding centrifugally from the dorsal thalamus to the cortex (for the elaboration of the psychic aspects of the disorder) and centripetally from the dorsal thalamus to the hypothalamus (for the elaboration of the affective component of the psychosis) The factual basis for this theory is weak, and it is not clear why the severance of thalamocortical fibers should be of more significance than severance of projection fibers

Assuming that autonomic effects play a role of greater significance than the end result of mere affective display, it might be anticipated that topectomies, undercuttings, or thermocoagulations of the cingulate or basal frontal regions might give results superior to those of operations upon the lateral granular frontal cortex, inasmuch as the two former regions appear to be more active in the autonomic sphere than does the lateral granular cortex. Conclusive data are still unavailable

The advantages or disadvantages of thalamotomy, if such exist, would appear to be of a practical rather than theoretic nature

Conclusion

It is illogical to imagine that one form of psychosurgery or even one form of a particular operative procedure is applicable to all psychotic individuals or even to all individuals suffering from the same sort of psychosis or symptomatology The field of psychosurgery is a peculiar one in that it is not a simple matter for the general practitioner to decide how to get a proper consultation for a case There is much emotional feeling among psychiatrists about whether psychosurgery should or should not be done, and few of the psychiatrists who do recommend psychosurgery display an impartial point of view toward all procedures The neurosurgeon is, of course, not trained in psychiatric diagnosis as he is in neurologic diagnosis and must depend on his associates for a proper evaluation of the case It is, therefore, unfortunate that transorbital lobotomy is being done by some psychiatrists themselves The operation is surprisingly free from complications despite its apparent barbarity, and as it comes to be done more and more widely by psychiatrists of varying grades of competence, it will ultimately be taken up by opportunists with little or no psychiatric training Psychiatrists would probably have done better to have left this procedure to the neurosurgeons than to have opened the door to exploitation. The day is probably not far off when the more precise legal aspects surrounding psychosurgery will have to be determined Meanwhile, the cautious neurosurgeon will leave psychiatric diagnosis and prognosis to the psychiatrist, and the latter will allow the neurosurgeon to do any cutting he feels should be done.

In any event no case should be subjected to psychosurgery unless (1) a complete, recent, and energetic restudy of the case has been made by a competent and industrious psychiatrist, (2) strenuous efforts have been made to readjust the patient's home environment without success, and, (3) all available, promising, less drastic therapeutic methods have been exhausted Now, as ever, our guiding principle should be "*nihil nocere*"

Reference

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BIRTH RATE INCREASES

The reproduction rate of college-educated women in this country has made "remarkable progress" since 1940, with an 81 per cent increase between 1940 and 1947, the Population Reference Bureau, a nonprofit organization in Washington, D C, announced recently

The reproduction rate of women college graduates was 40 per cent below replacement in 1924 and 48 per cent below in 1940 In 1947, women college graduates had a rate only 5 per cent below that needed for replacement

The Bureau reported also that graduates of co-educational and Western colleges produced the largest families.

the muscular portion of the uterus may contract about a portion of the placenta and make the expression difficult If this happens, the placenta, which is almost always protruding into the upper vagina, can be grasped with the sterile gloved hand and gently extracted All placentas are removed manually, if necessary, at the end of one hour maximum, and usually within fifteen minutes If there is hemorrhage, the placenta is expressed or removed manually at once

Dieckmann's data indicate that, where an oxytocic was used in the late second stage of labor, the incidence of hemorrhage amounting to 300 ml or more with (2 per cent) and after the placenta (7 per cent) was very definitely decreased, and postpartum hemorrhage, i e, 500 ml or more, was practically eliminated [3]

The senior author has been advocating manual removal of the placenta as a teaching procedure for many years We believe that the only way one can learn how to remove the placenta manually is to do it in normal cases under supervision If doctors would learn this procedure, they would not be removing omentum and intestine mistakenly for placenta They would also be able to recognize the rare case of adherent placenta, inversion of the uterus, incomplete rupture of the uterus, and myomas within the uterus

We have no hesitancy in performing manual removal of the placenta, in fact every assistant resident during his initial three-month period in the birth rooms removes three to five placentas manually for teaching purposes In a six-month period in 1945 there were 18 placentas removed manually During similar six-month periods since January 1, 1946, the number of placentas removed manually has ranged from 80 to 176, the majority, of course, for teaching purposes There have been more than 1,206 manual removals of the placenta between July 1, 1933, and March 1, 1949, of which 681 occurred since January 1, 1946 In September and October there were 48 manual removals, and the total obstetric morbidity was 4 1 per cent, in November and December the figures are 105 with 2 8 per cent morbidity, and in January and February there were 45 manual removals with a 3 7 per cent total morbidity Cacciarelli reports 1,625 routine manual removals of the placenta with no increase in morbidity [16]

Some of the maternal mortality due to postpartum hemorrhage must be charged to various obstetricians who teach that the postpartum uterus must not be invaded without a life or death indication because of the possibility of infection If doctors will learn that it can be explored without any increase in morbidity or mortality, providing proper aseptic precautions are used, they will have less hesitancy in examining the interior of the uterus whenever there are any complications

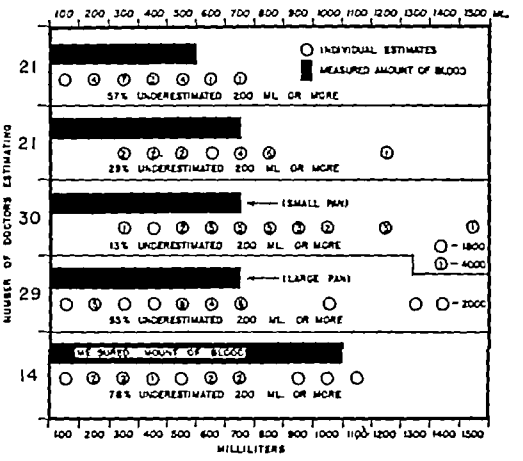


FIG 1 Estimates of blood.

Dieckmann and Daily reported in 1935 that the average total blood loss at delivery (episiotomy plus uterine) was 342 ml [17] Odell and Seski in a study on our service found that the average blood loss from an episiotomy was 253 ml [18] Our data indicate that most patients lose approximately 50 ml with the placenta and 129 ml after the delivery of the placenta, and if there has been an episiotomy or extensive laceration, an additional 250 ml or more, making a total of approximately 430 ml. or more of blood in presumably normal deliveries (episiotomy) [3] The pregnant woman does not have an extra supply of blood which will permit her to bleed excessively at delivery The withdrawal by venesection of 500 ml of blood from pregnant patients can be detected by changes in the blood within five minutes, and within twenty-four hours each patient shows an appreciable drop in hemoglobin, hematocrit, and serum protein concentration If either placental or episiotomy bleeding is slightly excessive, the total blood loss at delivery will be well over 500 ml. of blood

Many of the fatalities from postpartum hemorrhage have occurred in women in whom there has been a slow trickle of blood over hours, either with or without the placenta in utero Everyone, almost without exception, underestimates blood loss One of the authors (A S), during his residency, had the various members of the house staff and staff make estimates of known amounts of blood (Fig 1) It is noteworthy that on a teaching service where an attempt is made to keep blood loss at a minimum, 62 per cent of the doctors underestimated by 200 ml or more the blood contained in basins Very few overestimated Where the patient is watched over a period of hours

the last ten years there were 156 cases of postpartum hemorrhage with only 56 manual removals of the placenta [10] The average blood loss in these cases amounted to 990 ml , but there were only 38 blood transfusions There were two deaths They advise obstetricians to wait twenty to thirty minutes for natural separation and expulsion They still advise the use of Ahlfeld's signs and the intramuscular injection of ergotrate

McLean, McDowell, and Sadugor in 1948 reported that, through the employment of a recovery room, they have been able to reduce the maternal mortality of postpartum hemorrhage from 50 per cent to 0 [11] During the period 1941 to 1945 there were 15,371 deliveries with 33 maternal deaths, 18 of which were due to postpartum hemorrhage and shock Sixty-three per cent were due to atony of the uterus They also report two hemorrhage deaths after cesarean section We have had only one such death from placenta previa in over 2,800 sections The patient remains in the recovery room for eight hours The method now in use should have been the practice during the preceding years, namely, watch for hemorrhage, control it, and replace blood

A discussion by various obstetricians in England in 1946 revealed that, since the teachers themselves have no definite plans of treatment, it is obvious why the general practitioner and even the specialist have so many cases of postpartum hemorrhage and why the maternal mortality from this condition is still so high [12]

In reading these reports of fatal postpartum hemorrhage, as well as hearing of similar cases in our own city, and looking back over some fatal cases of our own, it is obvious that the difficulty lies in a failure of the doctor to conduct the placental stage properly and to evaluate blood loss For many years we have concentrated our teaching efforts on the management of the placental stage We tell the students and house staff that 95 per cent of the patients will deliver themselves if given time, but the complications of the placental stage and the maternal mortality from hemorrhage have not been appreciably lowered during the past decade

Hemorrhage from the placental site is controlled (1) by the contraction of the uterus (compressing the uterine vessels) and by the time the contraction is over, retraction of the muscle bundles has occurred and the vessels are permanently compressed, and (2) by clotting of the blood in these vessels If there is no retraction—complete loss of muscle tone—bleeding will recur each time that the contraction is over, for no uterus can remain in a state of constant contraction

The anatomic and physiologic changes occurring in the uterus in the late second and third stages of labor have been known since 1918, but very little attention has been given to these changes by the clinician Unfortunately, the authors of our textbooks usually ascribe postpartum hemorrhage to mismanagement of the third stage of labor Davis and Boynton stated that if 0 2 mg of ergotrate were given intravenously after the delivery of the anterior shoulder and thirty seconds allowed for its action, in 72 per cent of their cases the placenta could be expressed within three minutes [13] However, all the evidence at hand indicates that the decrease in the size of the uterus during the end of the second stage causes a shearing of the placental attachments, and the contracting uterus expels the placenta as a foreign body [3] Irrespective of the use of an oxytocic drug, the placenta can be expressed in over 95 per cent of the cases within six minutes after delivery if two to four minutes were required for the birth of the baby [3] If the woman were in the upright or squatting position, gravity would cause the early delivery of the placenta With the patient in the supine position external force must be used to expel the placenta

The so-called Duncan and Schultze methods of placental separation and extrusion from the uterus are only of historical interest, and discussion should be omitted from textbooks The retroplacental hematoma is almost nonexistent if the second and third stages are properly conducted, and most obstetricians now know it has nothing to do with placental separation.

Dieckmann and coworkers reported in 1947 that slow delivery of the fetus was the factor which favored the normal separation of the placenta [3] Obviously, the uterine wall requires some time to readjust itself to the decreasing size of its cavity as the baby is expelled The final technic was to deliver the anterior shoulder, wait thirty seconds, deliver the posterior shoulder, inject 0 1 ml (1 unit) solution of posterior pituitary (1 ml of pituitary or pitocin plus 9 ml saline solution, using 1 ml. of this dilution), wait thirty seconds, and then slowly deliver the baby * The cord was held close to the vulva, stripped once toward the baby, and then clamped It has required considerable effort to keep the house staff from hurrying the delivery of the baby once the head has been born

The doctor must watch the uterus closely, and as soon as Calkins' sign is present (persistence of a globular uterus during relaxation), the placenta is expressed by the Pastore technic wherein the uterus is squeezed but kept out of the pelvis [14,15] Slight traction is exerted on the cord, once the placenta is in the vagina If one waits too long,

* Eli Lilly & Co supplied in 1 ml. ampules containing 1 unit of solution of posterior pituitary

the muscular portion of the uterus may contract about a portion of the placenta and make the expression difficult If this happens, the placenta, which is almost always protruding into the upper vagina, can be grasped with the sterile gloved hand and gently extracted All placentas are removed manually, if necessary, at the end of one hour maximum, and usually within fifteen minutes. If there is hemorrhage, the placenta is expressed or removed manually at once.

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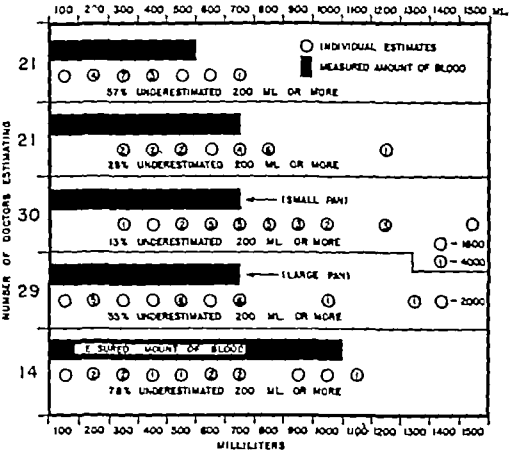


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		Ergotrate				
1947	1 740	Anterior shoulder	1 93	1 22	0	0 69
1948	2,119	Anterior shoulder	2 21	1 37	0 09	0 05
1948	223	Posterior shoulder	1 79	0 89	0	0 44
1949	237	Anterior shoulder	4 22	4 22	0	0
		Solution Posterior Pituitary				
1946	1 159	Posterior shoulder	0 35	0 35	0	0
1947	156	Posterior shoulder	1 20	1 20	0	0
1948	455	*Both* simultaneous	2 85	2 63	0	0 44
1949	358	*Both* simultaneous	1 68	0 56	0	0

* Corrected for blood loss from episiotomy and lacerations

and the pads are not saved, it is obvious how blood loss will be underestimated until the patient is in shock with air hunger By this time the shock has frequently become irreversible An ordinary lap pad measuring 8 inches by 16 inches, not dripping, will contain 150 ml of blood A 4 inch square sponge used in perineal work, not dripping, will contain 7 ml , and the ordinary Kotex pad will contain 60 ml of blood If doctors and nurses will remember these amounts of blood and have all pads saved after delivery where the blood loss seems excessive, fewer patients will die from undiagnosed postpartum hemorrhage

Additional statistics on the placental stage are given in Table 1 It is noteworthy that, despite the repeated studies on the proper use of oxytocics, as well as concentration on the conduct of the placental stage, immediate and delayed postpartum hemorrhage still occurs, both in the cases delivered by the residents and the staff An experienced resident must be present at all staff deliveries during the first six weeks of the initial three-month birth room period and must also be present at all operative deliveries

Note the immediate hemorrhage incidence of 0 35 per cent for 1,159 deliveries in 1946, as compared with 455 deliveries in 1948, incidence 2 63, and 358 in 1949, incidence 0 56 The latter two series were delivered by different groups of assistant residents and residents The resident is the one person who can by example and by proper teaching prevent postpartum hemorrhage The corrections are for blood loss from episiotomies or lacerations

In general, the incidence of postpartum hemorrhage is highest with each new group of assistant residents, and it tends to decrease as they become experienced We do not believe that postpartum hemorrhage of 500 to 1,000 ml can be completely prevented We do believe that the incidence can be kept to 0 5 per cent, or less, and that hemorrhages exceeding 1,000 ml are, in most instances, chargeable to the doctor Patients with multiple pregnancies, polyhydramnios, or prolonged labor are the only ones in whom uterine hemorrhage exceeding 1,000 ml may occasionally occur However, in such cases the experienced doctor has made his plans in advance, and the hemorrhage can be kept at a minimum In general, we believe that any hemorrhage of 300 ml or more is excessive in the properly handled placental stage

Dieckmann believed that the intravenous injection of 1 unit of a solution of posterior pituitary was more efficacious in producing uterine contractions than ergotrate, but the latter had a longer action [3] The data in Table 1 seem to demonstrate, beyond question, that delayed and late postpartum hemorrhage, as defined in the table, is much more likely to occur when ergotrate has been used in the placental stage We have a total number of 3,378 deliveries with ergotrate with an incidence of delayed and late postpartum hemorrhage of 0 09 per cent and 0 53 per cent and 2,644 deliveries with pituitary solution with 0 per cent and 0 per cent, respectively Placental tissue is rarely found in the delayed or late hemorrhages The usual report from the pathologic laboratory is thrombosed vessels from the placental site It is striking that in the only two cases of late postpartum hemorrhage (twenty-five and thirty days after delivery) where pituitary solution was injected intravenously and ergotrate was also given, a piece of placental tissue about the size of a golf ball was removed in each case We discontinued the oral administration of ergotrate in 1943 We can detect no difference in the morbidity or in the incidence of postpartum hemorrhage This has resulted in a marked reduction in our drug bill and in the nurses' time

We have been determining the latent period for ergotrate and pituitary solution when given intravenously We have tried with intrauterine bags attached for kymograph recording, with the hand in the uterus and with the hand on the abdomen Since the uterus is undergoing normal rhythmical contractions, it is not easy

BLE 2.—TIME TO FIRST UTERINE CONTRACTION AFTER DELIVERY OF BABY (SECONDS)

Author	Intravenous Injection		
	Ergotrate	Solution Posterior Pituitary	Both Drugs
ur	60		
s *et al*	54	31	
t Study	83	48	46
ge	40 to 180+	10 to 69	20 to 79

termine the exact latent periods for these drugs Several reports are summarized in e 2 Our mean for pituitary solution is eight seconds (range 10 to 69), and for rate the mean is eighty-three seconds (range 180 plus seconds) Grimes and coworkers made similar observations by palpation gh the drapes, and they stated that the tary action was rather sudden and easily while the ergotrate action was somewhat difficult to recognize, the contraction being r in onset but of a more sustained char- [2] They had cases in which ergotrate failed oduce a contraction in two minutes, whereas ngest interval with oxytocin was fifty sec-

ere have been several reports about the r of solution of posterior pituitary, and it is ually contraindicated, according to one r, in patients receiving cyclopropane hesia The senior author has had over y-eight years experience with pituitary on, and the only deaths caused by the drug due to uterine rupture Only one patient ound to be highly sensitive We have seen few reactions from pituitary solution at ery, the most striking being an occasional ycardia

a controlled study in postpartum patients were given on successive days intravenously t of pituitary solution, 0 4 mg of erogtrate, 5 ml of normal saline solution, we were sur- d to find that eight out of twelve patients bdominal cramps, nausea, vomiting, vertigo, aches, flushing, desire to urinate or defecate ergotrate, 11 after pituitary solution, and fter saline Those responding to the pitu- solution also had a slight transient hyper- on. Grimes and coworkers observed no nizable general reaction in more than 4,000 nts who were given undiluted oxytocin ion intravenously [2] They also noted that supposedly harmless intravenous injection gotrate not infrequently produces a peculiar osis of the upper part of the body which is ected by oxygen They also noted brady- a in some patients

e causes of postpartum hemorrhage are as ws

I Abnormal placental site or attachments
- (*a*) Placenta previa
- (*b*) Abruptio placenta
- (*c*) Placenta accreta

II Trauma—Duehrssen's incisions or lacerations of the vagina, cervix, or uterus

III Uterine atony
- (*a*) Incomplete separation of the placenta or retention of a piece
- (*b*) Overdistention (multiple pregnancy, polyhydramnios, etc)
- (*c*) Anesthesia, and to a less degree, analgesia
- (*d*) Prolonged labor
- (*e*) Tendency for postpartum hemorrhage

IV Blood dyscrasia
- (*a*) Acquired fibrinogenopenia
- (*b*) Heparin-like substance in the blood

V Neoplasms of the uterus

If the placenta has been delivered *intact*, and bleeding still continues from the uterus, the following treatment is indicated

1 *Repeat only once* the intravenous injection of ergotrate or pituitary

2 Explore the uterus manually for an accessory placental lobe and to exclude rupture of the uterus or tumors Inspect vagina and cervix

3 Briskly massage the uterus through the abdominal wall.

4 Pack the uterus properly (not too tightly or too loosely) *only once*, if bleeding continues despite 1, 2, and 3 Doctors must also practice insertion of uterine packs This systematic treatment will control uterine bleeding from atony in almost 100 per cent of the cases

5 During and after the period of hemorrhage, the patient must be given saline solution, 1,000 to 2,000 ml by hypodermoclysis and blood in amounts more than sufficient to replace what was lost (minimum 1,000 ml), which is always underestimated

Serum, plasma, 20 per cent glucose, and saline solutions are only stopgaps until blood is available If 500 ml of any of these solutions are injected intravenously, the blood pressure will increase and the patient improve, but the injection must not be repeated unless blood is also given

In those rare cases where the uterine pack and the oxytocic fail to control the hemorrhage, one of the following procedures must be used immediately (1) The uterine arteries must be ligated vaginally, according to the technic of Kerwin, or clamped, and (2) the uterus must be removed by abdominal or vaginal hysterectomy [19] In almost eighteen years, only two uteri were removed in normal patients because of atony, and probably only one was absolutely necessary

Five of our patients (two had an abruptio placenta) resembled purpura in that there were hemorrhages not only from the uterus but also

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the uterine cavity and visual inspection of the vagina and cervix. One of the above oxytocics should be injected intravenously, and if the bleeding continues, the uterus must be packed At least 1,000 ml of blood, and more if necessary, must be given at once Periodic hemoglobin or hematocrit determinations must be made

Doctors must be taught that the postpartum uterine cavity can be explored with safety if asepsis is practiced

Discussion

Edward C Hughes, M D, *Syracuse*—Analyses of the maternal mortalities that occur in each hospital and throughout the nation as a whole still reveal that hemorrhage accounts for a large number of deaths each year Dr Dieckmann, in his presentation, has covered the topic completely and again brings this important subject to our attention

It is difficult and almost impossible to believe that, with the comparative ease with which blood and plasma can be obtained, the incidence of death from hemorrhage is such an appreciable one However, it remains a fact that these deaths are not entirely prevented by blood replacement per se Hemorrhage in the third stage has accounted for 33 per cent of the deaths in the Syracuse Memorial Hospital since 1935 The maternal mortality since 1943, with a total of 10,600 deliveries, was 0 8 per 1,000 births. Hemorrhage caused one third of these deaths, although only three cases actually died

The author reports that Davis and Boynton were the first to state that the proper management of the third stage begins late in the second stage of labor I would like to emphasize this fact but go a little farther back and say that the proper conduct of the third stage starts with a proper understanding, a careful appreciation, and anticipated outlook of the difficulties that might arise

In attempting to reduce the incidence of hemorrhage during and after the third stage, it must be remembered that the first and second stages must be properly and carefully supervised, always keeping in mind the possibility of the dangers of the third stage.

As Dr Dieckmann has stated in his discussion, the bleeding from the placental site is controlled by a definite mechanism. The uterine sinuses are composed of a single layer of endothelial cells They have no muscular coats of their own and must depend upon the contraction and retraction of the muscle fiber for compression. After compression has occurred, clotting of the blood in the sinuses results, which causes thrombosis of the vessels It is important then to remember the many things that influence this mechanism during the entire course of labor We must always live in fear of postpartum hemorrhage We must always look ahead and do nothing that is going to hamper the normal physiology of hemorrhage control, which nature has provided for us What does this mean? Dr Dieckmann has stated in his paper that there are certain fundamental procedures that must be kept in mind. I might re-emphasize these things

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have found that there were five cases of spontaneous rupture of the uterus which resulted in as many deaths In going over these records, it is noted that careful intrauterine examinations were not made manually for the fear of uterine invasion and infection. Had such a careful survey been conducted, surgical interference could have saved the lives of these patients Since explorations of the uterine cavities have been conducted manually in unusual cases since 1943, no death from rupture of the uterus is recorded

The conduct of the third stage of labor varies with each hospital With the type of anesthesia used in the Memorial Hospital, it is rarely necessary to remove the placenta manually However, where this structure does not separate within a period of an hour or if there is partial separation with bleeding, manual removal is performed. We feel that careful examination of the placenta and membranes should be done without reservation, and if missing cotyledon are discovered, manual removal is performed Dr Dieckmann has stated that this procedure has not increased his morbidity Our morbidity in the past eighteen years has varied between 2 5 and 3 4 per cent, although the incidence of uterine invasion in the third stage has increased during the past few years However, a survey of the 92 cases of retained placenta, where the placenta was either removed manually or delivered spontaneously some hours after the retention, showed that there was 15 5 per cent morbidity in the private cases and 28 8 per cent in the ward cases However, these cases included those which were sent to the hospital from the outside and where some time had elapsed since the second stage was completed

It would seem that, if the uterus is to be invaded, it is important that it should be done probably within the hour after completion of the second stage

Dr Dieckmann has discussed the advantages of pituitrin versus ergotrate It has been routine, except when general anesthesia is used, not to use either pituitrin or ergotrate until after expulsion of the placenta. The uterus is immediately pulled out of the pelvis, and when the first contraction occurs after delivery, manual expression is performed Most placentas are obtained within five minutes. If general anesthesia is used, pituitrin, 1 cc , is given to stimulate the uterus to contract and relax to favor separation. Expulsion again is attempted on the first contraction After expulsion, ergotrate is used intravenously The patient is placed in a convalescence room where the uterus is watched for at least one hour It is massaged, held out of the pelvis, and kept small Records of the pulse, blood pressure, and vaginal drainage are recorded

There is no question of the importance of blood replacement In surveying the hemorrhage deaths, it is true that there has been delay in cross matching or starting transfusion. It is important to anticipate disaster by having a needle in the vein, blood available, and someone to start such a procedure immediately If blood matching is satisfactory, there should be little danger of the anurias and other troubles that follow poorly administered blood.

If I may add something to the complete and excellent presentation of Dr Dieckmann, I might ask that anticipation of blood loss be foremost in our minds, that nothing be done during the stages of labor that hampers the physiology of the uterus, and that we be sure of our cause of bleeding and begin to replace the blood long before the patient shows the signs of hemorrhage

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AUSTRALIAN DOCTORS FIGHT PHARMACY ACT

The British Medical Association has challenged in the high court of Australia the constitutionality of the Commonwealth Government's Pharmaceutical Benefits Act This act orders doctors to prescribe as free medicine all specifics and compounds listed in the government's formulary of about 600 items

The Association charges the legislation amounts to civil conscription of doctors, which is expressly forbidden by an amendment of the Commonwealth Constitution approved in 1946

EXTRAPERITONEAL CESAREAN SECTION IS THERE STILL A NEED FOR IT?

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TODAY among obstetricians there is considerable controversy regarding the need for extraperitoneal cesarean section Majority opinion, based on views the writer has read in the recent literature and heard expressed at various meetings, seems to be that the need is so slight that it is no longer necessary to include it in the armamentarium of the obstetrician

This operation was designed to protect the cesarean section patient from peritonitis It consists in approaching the lower uterine segment from behind the bladder and below the vesicouterine peritoneal fold An area on the lower uterine segment is then exposed through which the baby and placenta are extracted without opening the peritoneal cavity

Indications

Advocates of this procedure claim that it is indicated in all patients requiring cesarean section who are potentially or actually infected Criteria as to what constitutes potential or actual infection vary somewhat with different authorities Cosgrove and Waters define them as follows "Potentially infected cases are those in labor more than twenty-four hours, those with ruptured membranes more than twelve hours, and those with any other manipulation than a very few rectal examinations and/or one ideally guarded vaginal examination Actually infected cases are all those which, in addition to the factors constituting potential infection, exhibit an exaggeration of those factors and actual clinical signs of infection such as intrapartum chills, fever, rapid pulse, dehydration, foul amniotic fluid, excessive leukocytosis, or positive cultures for pathogenic organisms in the amniotic fluid or blood stream "[1]

Advantages

1 It prevents soiling of the peritoneal cavity by spill of infected amniotic fluid when the uterus is opened

2 It prevents seepage of infected material through the sutured uterine incision into the peritoneal cavity

3 It provides extraperitoneal drainage of any uterine discharge

4 It allows many patients to have a longer test of labor with safety Waters, in discussing a paper by Daichmann and Pomerance, states that his incidence of cesarean section has been cut in half since he has been doing extraperitoneal sections [2]

5 It saves the uterus in those actually infected patients who might otherwise have had a cesarean hysterectomy

6 These patients have a remarkably smooth postoperative convalescence with little or no distention or other symptoms or sequellae which may result from invasion of the peritoneal cavity and handling intestines

Reported Results

Extraperitoneal cesarean section has been used extensively in several hospitals, and reports indicate that it has reduced the mortality in cesarean section Heffernan and Sullivan have collected a series of 1,089 cases in which the maternal mortality was 0 82 per cent [3] Four patients succumbed to sepsis and two to postpartum hemorrhage In comparing this mortality with that reported in a large series of classic and low flap sections they find that extraperitoneal section is almost twice as safe as the low flap operation and four times as safe as classic section The writer can add 33 personal cases with no maternal deaths

Criticism by Opponents

1 The technic of the operation is too difficult This results in a longer operating time which subjects the mother and baby to the hazards of longer anesthesia

2 Even in the most expert hands a large percentage of perforations of the peritoneum occur Its critics argue that if the peritoneum is perforated, it ceases to be an extraperitoneal operation Cosgrove and Waters collected over 800 cases reported by five authors in which the peritoneum was perforated 232 times, or in about 27 per cent [1] The maternal mortality was 0 5 per cent They claim that most of these perforations are small nicks which occur before the uterus is opened If they are ligated and tied off before the uterus is opened, sufficient protection is provided against spill and seepage into the

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peritoneal cavity The low mortality of 0 5 per cent tends to support this contention

3 The bladder may be accidentally perforated, or its nerve supply so disturbed from stripping it from its fascia and the lower uterine segment that deformities and dysfunctions will result Cosgrove states that bladder injuries have not been very frequent at the Margaret Hague Hospital [1] One fatal result has been reported In the remainder of their bladder injuries there were no persistent fistulas, and no injuries required subsequent surgery Mangone tested the bladder function of eighteen patients three months after extraperitoneal section by cystoscopic examination and either intravenous or retrograde pyelography [4] These observations showed that in the uncomplicated case where bladder injury does not occur, there is no impairment of bladder function and no disturbance of bladder or ureteral anatomy

4 Ovarian or uterine tumors which may seriously complicate the postpartum course are not discovered and treated because the peritoneum is not opened

5 The patient cannot be sterilized

6 In frankly infected cases the extraperitoneal section is not as safe as cesarean hysterectomy where the infected uterus and its contents are completely removed At the Chicago Lying-In Hospital the mortality from cesarean hysterectomy is reported as 1 4 per cent [5] Most other series reported in the literature range from 5 to 12 per cent McCall believes that cesarean hysterectomy is a dangerous and shocking procedure to the seriously ill and violently infected patient, and since the peritoneal cavity is invaded, peritonitis is still liable to develop even though the uterus is removed [6] He has reported a series of 64 extraperitoneal sections in severely infected cases with no maternal mortality

The personal experience of the author with these criticisms extends over an eight-year period and is based on 33 cases Twenty-four were potentially infected and six actually infected There were no deaths However, one patient died two years later The cause was an ovarian tumor which was known to be present at the time of the extraperitoneal cesarean section

Case 1 —A twenty-one-year old primipara had been in labor over sixty hours, and the membranes had been ruptured over forty-eight hours When first seen in consultation, she had fever, rapid pulse, and a foul vaginal discharge Examination revealed a large, fixed, semicystic mass which filled the pelvis This mass had apparently been mistaken for the vertex which was out of the pelvis and in the right iliac fossa It was decided that the patient's condition was too poor to risk cesarean hysterectomy and removal of the tumor Accordingly, a supravesical extraperitoneal section was done without injury to the peritoneum or bladder A living baby was delivered which survived The patient recovered uneventfully Although she had been advised to return within three months for removal of the tumor, she did not appear until eighteen months later A large teratoma with areas of malignant degeneration was found and removed There were extensive metastases throughout the pelvis and peritoneal cavity She died six months later

The operating time was reduced from one and one-half hours in the early cases to fifty minutes in the later ones The bladder was perforated in two cases In each instance it healed promptly without sequellae The ureters were not injured, nor were they seen in any case The peritoneum was perforated or nicked six times, in each case before the uterus was opened The last two perforations occurred because of haste in an effort to save operating time Since then fractional spinal anesthesia has been used in these cases, which has the advantage of being safe for both the mother and baby and which allows one to take sufficient time for careful and meticulous dissection The hazards of perforation are considered more important to the patient than the shortening of operating time by ten or fifteen minutes

The majority of those who object to extraperitoneal cesarean section do so largely because they believe that chemotherapy and antibiotics have been so successful in preventing and treating peritonitis that this operation is no longer, or seldom, needed Several leading authorities have expressed this opinion. More and more reports are appearing in the literature which give extremely low mortality figures for transperitoneal cesarean section. The role of antibiotics is emphasized in these articles Douglas and Landesman of the New York Lying-In Hospital state that potentially infected cases, even those in labor over forty-eight hours, are now treated by transperitoneal rather than extraperitoneal section unless there has been no prohylactic sulfa and penicillin therapy [7] All potentially infected cases are given 6 Gm of sulfadiazine and 300,000 units of penicillin daily as a prophylactic measure They have had no deaths from infection in the past eight years The representatives of other well-known New York hospitals have stated at recent obstetric meetings that they no longer or seldom perform extraperitoneal cesarean section

It must be remembered that these hospitals are staffed by expert obstetricians who follow and study their patients closely throughout pregnancy and labor Reports from communities and hospitals at large might present a somewhat different picture For example, a

study of the case histories of the last 30 consecutive cesarean section deaths occurring in the Borough of Brooklyn which were reported to the Maternal Mortality Committee reveals that eight, or 26 6 per cent, died from infection Seven were due to peritonitis and one to pyelonephritis All received vigorous treatment with sulfa drugs, penicillin, and in some instances streptomycin There was one classic section in the group The remainder were low flap operations Prior to 1945, it was estimated that 38 per cent of cesarean section deaths were due to infection, usually peritonitis [6] In Brooklyn, then, the mortality has apparently been reduced only from 38 to 26 6 per cent by the use of chemotherapy and antibiotics

Three of these eight patients had had no labor, and the membranes were intact at operation In the remainder the membranes had been ruptured for from six to eighteen hours In one case culture of the uterus postmortem showed the presence of gas bacilli (Welsh) Holstrom and Murata in a study of the bacterial flora of the postpartum uterus in 96 cases found that very few, if any, postpartum uteri are completely free of organisms after the first forty-eight hours following delivery [8] They found 83 different species of organisms in 93 positive cultures Sixty-one per cent were anaerobic or facultative anaerobes, some of which were penicillin and sulfa-resistant

The following case is an illustration of the fact that certain strains of infecting organisms may be present in the uterus, even before the membranes have ruptured or may be introduced into the peritoneal cavity by laparotomy, which will cause peritonitis and death following cesarean section in spite of vigorous antibiotic therapy

Case 2—The patient had a transperitoneal section because of previous classic section She was not in labor, and the membranes were intact Penicillin, 600,000 units, was left in the abdominal cavity, and 50,000 units started every three hours postoperatively On the third day she developed fever and abdominal distention A Wangensteen tube was passed One-half gram of streptomycin every four hours was ordered. All medication was continued, and on the seventh day 15 grams of sulfathaladine were added because of no improvement She died on the ninth day of generalized peritonitis and paralytic ileus

In the next case extraperitoneal cesarean section might have provided the one added safety factor necessary for survival The peritoneal cavity would not have been invaded, and extraperitoneal drainage would have prevented seepage from the uterus into the peritoneal cavity

Case 3—A twenty-one-year-old primipara had an unengaged vertex after fourteen hours of labor and eighteen hours of ruptured membranes One hundred thousand units of penicillin were administered before a transperitoneal section was performed Four grams of sulfanilamide were left beneath the bladder flap Thirty thousand units of penicillin every three hours were started immediately after the operation and continued until the third day when she developed signs of peritonitis In spite of larger doses of penicillin intravenously and transfusions, she died on the sixth day of generalized peritonitis

Comment

The results reported with the prophylactic use of antibiotics are impressive and seem to indicate that transperitoneal section is relatively safe in potentially infected patients who are closely watched To be effective the treatment must be started early before pus and exudate have formed Any procedure, however, should be evaluated in the light of the facilities and skills available in communities and hospitals at large rather than in ideally situated groups Many patients do not and will not receive the benefit of this care, and some will develop peritonitis in spite of it It is this group of potentially infected patients who need extraperitoneal section most and will be fortunate in having a consultant who can perform the operation In fact, any potentially infected case will probably be safer by receiving the double protection of extraperitoneal section plus antibiotics It has been the observation and experience of the author that those who do no more than a moderate amount of this work can master the supposedly difficult technic of the procedure with safety

In the actually or frankly infected cases the procedure of choice will usually lie between extraperitoneal section and cesarean hysterectomy Since a large proportion of these cases are primiparas, great consideration should be given to preservation of the uterus The results reported with extraperitoneal section are remarkably good, and used in conjunction with antibiotics, it should be the method of choice in treating many of these cases Here, in the opinion of the writer, there certainly is a need for this type of operation.

Summary and Conclusions

1 Majority opinion among obstetricians seems to be that chemotherapy and antibiotics are so successful in preventing and treating peritonitis following transperitoneal cesarean section that there is little or no need for extraperitoneal cesarean section

2 The advantages and criticisms of the operation have been presented and discussed

3 The author's experience with 33 cases has been reported

4. Seven deaths from peritonitis in transperitoneal section cases in Brooklyn who received vigorous antibiotic and chemotherapy have been reported

5 The author believes that there is still a real need for extraperitoneal cesarean section.

Discussion

Charles A. Gordon, M D , *Brooklyn* —Dr Nelms has stated the question on extraperitoneal cesarean section very clearly It is a fact that because of the effectiveness of antibiotics, enthusiasm for extraperitoneal cesarean section is waning

It is clear that the relative merits of various types of operation must depend on accumulation of a great number of statistics, and even then it will be difficult to weigh all the factors of success or failure It is not uncommon for apparently hopelessly infected patients to survive any type of operation, even classic

The statistics of Marshall ten years ago, before the advent of chemotherapy or antibiotics, are still remarkable [a] In 1939, he reported 246 lower segment operations without a maternal death, in 70 cases in which infection was present or suspected, labor had been surgically induced in 15, forceps delivery had failed in five, and in 10 more a variety of vaginal procedures like attempted version or dilating bags had been tried

More than twenty years ago, Harris and Brown found no sterile cultures at operation after only six hours of labor [b] Risk rises rapidly with potential or actual uterine infection

It is not my experience that cesarean hysterectomy is a dangerous and shocking procedure on the infected patient On the contrary, convalescence is usually very smooth The serious objection to hysterectomy is the loss of the uterus during the reproductive period In frankly infected cases, however, I have always preferred to remove the uterus

[a] Marshall C McI Cesarean Section Lower Segment Operation, Baltimore, Williams and Wilkins Co 1939

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THE PRESENT STATUS OF Rh COUNTERIMMUNIZATION

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BETWEEN 1938 and 1941, the Rh factor was discovered and associated with erythroblastosis fetalis With this association there was immediately born the desire to defeat the ill effects. It took about two years more to show that the total results would have to come with treatment of the mother The progress with the various types of exsanguination have produced excellent results However, these all depend upon the fact the baby must be born alive and mostly undamaged The exsanguination originally was believed to be the answer to the badly damaged babies, but time has shown that the kernicterus and extreme jaundice are an irreversible equation Thus, we must obtain results before the reaction occurs Furthermore, as we know, each successive Rh positive pregnancy becomes effected earlier in utero and usually results in the stillborn fetus We say "usually results in the stillborn fetus" because cases have been reported in which the subsequent reactions were no more severe than those occurring with previous pregnancies Thus, in this hopeless type of case, results must be obtained early in pregnancy in all but a few instances This report is an attempt to summarize the known work done up to this point throughout the United States There have been four types of approach to the treatment of sensitivity in the Rh negative women degree of immunization reaction, maternal exchange transfusions for dilution, chemical reactions, and hapten.

Degree of Immunization Reaction

The degree of immunization reaction is expressed by Wiener as follows "When an experimental animal is injected with a mixture of two substances, one a good antigen and the other a poor antigen, the antigenicity of the weaker antigen is often suppressed "[1] The theory was expressed that on this basis typhoid or tetanus vaccines might supress the formation of Rh antibodies, because of the fact that the Rh antibodies are known to be so weak in reaction that only once in 25 to 50 times does a transfusion of positive blood cause a reaction in a negative individual Pregnancy causes approximately one in 20 reactions [2] Both tetanus and typhoid vaccines were experimentally tried by Wiener [2] The majority of cases showed no results whatsoever Although some few cases apparently reacted in a favorable manner, he feels that they would have recovered by themselves This is so stated because ultimate opinion has been expressed with regard to the injection of vaccines "This is evidently useless once sensitivity has developed "[2] At the International Society of Hematology in Buffalo in 1948, a favorable report using pertussis vaccine was given by one worker No other favorable reports can be found in literature

Working on the same theory of competition of antigens, we find that anti-A or anti-B is a stronger antibody than anti-Rh Originally it was stated that a negative woman with Rh positive incompatible husband, i e, type O wife and type A husband, is slightly better off than an Rh negative woman with an Rh positive compatible husband [1] This has not been proved In our own series we have not used incompatible fathers but have gone closer to the source of difficulty and used the babies blood types as a factor We found that the proportion of incompatible babies producing antibodies has actually been slightly greater than those completely compatible Checking our series we have compared the ratio of 1 20 as outlined by other workers and find that we have a ratio of 1 12 in which negative mothers with compatible positive babies show antibodies This whole series naturally compares unfavorably with the accepted 1 20, since it represents more instances of patients sent in for tests because the doctor feels there are antibodies present than a random cross section of all Rh negative mothers bearing Rh positive children The ratio of incompatible babies which produced antibodies was 1 4 Furthermore, we have two cases that produced anti-A reactions with one pregnancy and with the next pregnancy produced Rh erythroblastotic babies with high hyperimmune Rh antibody titers With these last named pregnancies the A titer did not rise, so we feel it was a pure reaction of the weaker antibody formation We may state then that the competition of antibodies probably has no future use with our present known antigens

Maternal Exchange Transfusions

The second approach to the problem was through repeated exchange transfusions for the women with high antibody titer These were tried by individual doctors throughout the

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country The results were so universally poor that we cannot find that anyone has reported a series The general idea seemed to be on a dilution basis, and, although it was worth trying as almost any effort is worth while, nevertheless, it seemed doomed to failure from the start, and it was We have seen in Syracuse two cases coming from other areas in which the mothers had undergone repeated exchange transfusions with absolutely no results Wiener also speaks of his failure [2]

Chemical Reaction

A third approach has been through chemical reaction As far as we can find, ethylene disulfonate is the only such reagent reported in literature Kariher in Rochester originated the idea and reported a series of three cases in 1947, and he has continued his work with a fair amount of success [3,4] To quote his figures at the end of 1948, 20 cases had been completed with 13 living babies resulting, six of them entirely normal while seven had more or less degrees of mild hemolytic disease As a result of Kariher's original report, we started a small series of our own. The results are quite interesting We have two cases which appear to be extraordinary successes However, the other six are such complete failures we must conclude that here again we are dealing with unaccountable successes We have included here two successes and two failures to illustrate our point Notice that all four of these cases are apparently hopeless This type of patient has been required in all the work, both ethylene and hapten However, one of the cases which gave such good results had not yet had a dead child, and the other good case did not have a particularly high antibody titer at any time, in spite of the tragic history The two failures are such obvious hopeless failures that we can only conclude that nothing affected these cases The same was true of our other failures They were absolute and complete, showing no effect from the injections of ethylene disulfonate

Case 1.—Mrs M K, type O, Rh negative, husband A, Rh positive, gave a previous history of bleeding peptic ulcer A severe postpartum hemorrhage necessitated a transfusion in 1934 of unknown Rh type blood In 1939 she had O, Rh positive blood following an abortion There was one normal pregnancy The present pregnancy showed a titration of 1 128 at four months At six months the titration was 1 512, and ethylene disulfonate was started. Response was immediate, and the titer dropped steadily to 1 16 by the eighth month This rose again to 1 32 at term, and labor was induced Baby showed antibodies 1 4, 20 nucleated cells, 3,200,000 red cells, and 11 Gm hemoglobin Partial replacement of blood was done with 150 cc withdrawn and 210 cc replaced. Note that the patient's response was immediate and sharp at beginning of treatment, but six weeks postpartum the titer was back to 512

Case 2.—Mrs B S was B, Rh negative with homozygous AB, Rh_1, Rh_2 husband. First pregnancy resulted in a stillborn macerated fetus, due to cord around the neck. A postpartum hemorrhage necessitated a transfusion of blood, later proved to be Rh positive A second pregnancy in 1943 produced a six and one-half months macerated fetus, and a third pregnancy fetus died twenty-four hours before labor, apparently of hemolytic disease

Present pregnancy started with 1 64 titer at five and one-half months A rapid reduction occurred simultaneously with the injections of ethylene disulfonate There were two rises, then a fall to about zero A perfectly normal baby which was type B, Rh positive with no antibodies and unaffected was delivered by cesarean section Probably these good results were a coincidence, as our typical hopeless cases show When the titers are of high value, the ethylene disulfonate seems to have absolutely no effect, and this was true of all our cases

Case 3.—Mrs J S, type B, Rh negative (homozygous husband, A, Rh positive) gave a history of normal pregnancy in 1945 In 1946 she was delivered of a seven months fetus which lived five hours No defects were noted During her third pregnancy with expected date of confinement March 16, 1948, first titration on August 20, 1947, was 1 256, next titration was 1 512 Ethylene disulfonate was started with absolutely no response Highest titer was 1 2,048 Baby died and titer returned to 1 512 It was a typical macerated fetus with heart fluid containing hyperimmune antibodies 1 512

Case 4.—The second typical failure was Mrs M J C, type A, Rh negative (husband probably homozygous O, Rh_1, Rh_2) Past history was negative One normal pregnancy produced a type A, Rh positive child Second pregnancy produced an infant which was normal at birth, jaundiced in twenty-four hours, and died in forty-eight hours after an attempted exsanguination This tragedy was due to an error in a commercial laboratory, for she was diagnosed as Rh positive Present pregnancy, due June, 1948, started with titration in November of 1 2,048 Injections started immediately, and there seemed to be several falls in titer of some degree, even to 1 256 However, titers immediately rose to 1 2,048, and baby died in utero with 1 128 hyperimmune titer in its heart fluid

We should conclude, therefore, that to the present time the chemical effort has not been overly successful and, at least as far as ethylene disulfonate is concerned, has no real future

Hapten

The fourth line of approach is the hapten This term apparently was originated by Landsteiner to distinguish the specifically reacting fractions from their complete antigens [5] Because of its nature, there is no danger of a

hapten's producing its own antibody when injected into a human However, it will combine with its own antibody when so injected Ever since the Rh antibody was discovered, the literature has had much comment regarding the hapten. The consistent feeling has been that when it is isolated, it will contain the answer The problem, therefore, seems very simple, "Has the hapten been produced?"

In 1946, Calvin *et al* in Baltimore reported that they had isolated a fatlike substance which they believed to be hapten or to contain it [6] At least it reacted with the antibodies In the meantime Bettina Carter in Pittsburgh was working along similar lines [7] From the Rh positive red cells she obtained a lipoid fraction which she felt was the hapten In general this is produced by first placing Rh positive cells in water The resultant mass and solution are diluted in an alcohol series of varying percentages which removes the A and B factors The filtered mass is mixed with anesthesia grade ether which dissolves the lipoids When this ether is evaporated, a yellowish resinous substance results This, dissolved in 95 per cent alcohol, is the hapten. The hapten thus produced is then mixed with physiologic saline for injection.

It sounds very simple to make but at the present time has been produced in less than five or six known places So far there has been no commercial production of the hapten, although it has been attempted somewhat unsuccessfully by several establishments It is a time-consuming procedure, and the necessary equipment is to be found only in well-equipped research centers In vitro the potency of the hapten may be tested by the complement fixation test similar to that used in the diagnosis of syphilis The potency is also assayed by the specific inhibition of agglutination by the hapten. If the reaction in vivo will be as consistent as it is in vitro, then the antibodies will no longer be feared.

We find then that the hapten has been used for two purposes The first is in erythroblastosis fetalis itself and the second in the sensitized pregnant woman We shall report only this second phase

We have included here the latest available figures on Mrs Carter's work given to us on March 15 [8] She reports that a total of 61 Rh negative sensitized mothers have been treated with the hapten produced in her laboratory She herself has treated 37 women with the following results 19 delivered normal babies, seven lost their babies, and 11 are undelivered to date All 37 women showed a decline in titer after treatment Some responded after the first inoculation, but a few required several inoculations The mothers of the seven lost babies had each lost at least one baby previously Mrs Carter feels that none of these cases was treated early enough three were treated at the second month, but one died of cord around the neck, one from placenta previa, and only the third was a macerated fetus at seven months One patient was treated at the fourth month and was delivered of a macerated fetus the next month Another was treated the fifth month and delivered a macerated fetus the eighth month The sixth case was treated beginning the sixth month and delivered a living child at term which died of hemorrhagic disease The seventh did not have treatment started until two weeks prior to term and delivered a stillborn. Thus, of the seven, perhaps two were unattached to the Rh factor as a cause of death, and the other five definitely were treated too late

The other 24 women treated by others in different localities using Mrs Carter's hapten do not show as good results This is the usual story in any such work. The records are incomplete, the treatment begins too late and is stopped too early A generalized, over-all picture of those 24 patients shows that 20 were started at seven months or later, and the records show failure or incomplete results, the other four had good babies when treated early This work certainly shows that late treatment will probably produce poor results However, the figures of early treatment are remarkable and indicate a trend in the right direction We have just started our own series this spring, using hapten produced by us As previously mentioned, the greatest problem at the present time seems to be the matter of production. Our figures are too small to be worth comment Our hapten does produce a drop in antibody titer, but beyond that we shall have to await the results of time We have the figures from three other sources to report, however

Dr Erf of Jefferson Medical College has treated six cases.[9] Two cases had no substantial reduction in antibody titer Two patients that were not pregnant did have marked antibody reaction of 1 64 which went down to 1 4 after about 1/2 Gm. of hapten. One pregnant woman given 3 Gm. of hapten over a period of six months had a reduction in titer from 1 512 to 1 4. A second pregnant woman had a reduction in two weeks from 1 4,000 to 1 100 However, the baby was delivered at this point and was already erythroblastotic, surviving only three hours Dr Erf feels that he cannot give an opinion now and that we must keep an open mind, because it will be a long time before the true value of the hapten therapy is known

Dr Levinson of Chicago has treated or is treating a total of 15 cases of which, at the present time, only four have delivered [10] These were not treated sufficiently long enough to produce

striking reaction, the other 11 have all received hapten for three months or longer and apparently are showing slightly more favorable results From his present efforts Dr Levinson feels that there is evidence that hapten has suppressive action upon circulative antibodies He states, "Whether this action is sufficiently strong enough to overcome the development of erythroblastosis remains to be seen!"

Dr Goldsmith reports the use of Mrs Carter's hapten on three cases [11] Over the course of twenty weeks the antibody titer was reduced from 1 64 down to zero on one case When the titer reappeared, labor was induced and a normal, living infant was delivered Patient had a titer of 1 2 on the day of delivery

The second case had a titer of 1 4 at twenty-two weeks gestation. Hapten, 100 mg, was given weekly, starting at the twentieth week and continuing until delivery No antibodies were found after the beginning of treatment, and a normal, Rh positive child was delivered by section at eight and one-half months

The third case had previous normal pregnancies and one erythroblastotic fetus The present pregnancy at twenty-four weeks had a titer of 1 32 and at thirty-two weeks a titer of 1 512 Treatment reduced the titer to 1 28 Baby showed marked and typical erythroblastosis fetalis and died one hour after birth All three of these patients had previously had cases of erythroblastosis and should have been hopeless, although, as we know, this is not always a fact

Summary and Conclusions

1 There is no real evidence that vaccines are of any real value in counterimmunization

2 The competition of antigens does not seem to have any present or future use in counterimmunization

3 Repeated exchange transfusions for Rh negative women with high antibody titer have no apparent value

4. Only one type of chemical reaction has been reported in the literature This is ethylene disulfonate Notwithstanding some apparently hopeful response to the treatment, it does not seem to have any real future in truly hopeless cases

5 Hapten, as produced by the Carter method, has given some hope for the future That hope, in spite of some present failures, lies in early injection and consistent use through the entire term of pregnancy It also depends on quantity of production and definite refinement

608 East Genesee Street

Discussion

Leslie Hughes Tisdall, M.D, *Brooklyn*—The problem of treatment for the Rh isoimmunized woman is of twofold importance There is no question of the desperate need for a means to counteract the antibodies present in these women when pregnant There is also the distressing problem of the need for counterimmunization in women who have had an erythroblastotic baby and whose prognosis for future living children is bad These women are justifiably fearful of another pregnancy Some therapeutic agent must be found to give these women hope for the future Until recently, as Dr Gwynn has stated, all efforts to neutralize or counteract Rh antibodies have been unsuccessful.

At least from theoretic considerations, Rh hapten would seem to be the ideal method of combating Rh antibodies, since, by definition, it will neutralize these antibodies without stimulating the formation of additional ones The problem, of course, has been of isolating this hapten in pure form The recent work of Carter has focused intense interest on this subject Dr Gwynn has very thoroughly detailed the progress of this work to date. Unfortunately, most of the investigators in this field, notably Levine, Diamond, and Wiener, as well as the English workers, have been unable to duplicate Carter's results and have expressed doubt as to the accuracy of her findings Nevertheless, one must be impressed by the clinical results as compiled by Dr Gwynn While we have done no actual work with the Rh hapten at St Catherine's Hospital, Brooklyn, we are seriously contemplating a large scale project to attempt to isolate it and test its efficacy

While not entirely pertinent to the scope of this paper, I believe attention should be drawn to the work of Philpotts on the use of methionine in isoimmunized mothers Methionine is an amino acid which has been used extensively in the treatment of liver disease. Since there is considerable liver damage in erythroblastosis, methionine has been administered to the mother with antibodies in the hope of preventing or minimizing liver damage in the fetus It does not in any way diminish or counteract the antibodies Philpotts has shown some rather excellent results in his series to date, and we have had apparently good results in a few cases. Further clinical trial is certainly indicated.

Despite the controversial reports at present, I am of the firm opinion that the isolation and use of the Rh hapten is the answer to the problem of Rh isoimmunization. Obviously, more laboratory and clinical studies remain to be done before this matter is finally solved.

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VAGINAL SMEAR EXAMINATION AS A DIAGNOSTIC AID IN GYNECOLOGY

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IT IS the purpose of this paper to illustrate how exfoliative cytology may be employed in gynecologic practice By its use it is hoped that diagnosis may be improved and prognosis aided It is necessary to detail some of the conditions in which this may be helpful Also, some statements as to its accuracy should be made

Papanicolaou is the originator of modern exfoliative cytology, and to him credit must be given for a fundamental medical discovery His many years of work and his classic papers and monographs on all phases of this subject are too well known to review in detail Papanicolaou's studies are all the more remarkable when one realizes that for many years he worked alone in this field, with nothing but disinterest from most of his colleagues Indeed, it is only recently that universal acceptance has been accorded his work and that pathologists in particular have begun to appreciate the importance of his methods of diagnosis

At present it is safe to say that a study of the vaginal cytology is of great value in gynecologic diagnosis It is true that there is no short cut in learning the interpretation of vaginal smears, this requires study and experience Yet this is not truly a disadvantage One cannot become a pathologist overnight—nor even a gynecologist!

Most recent work on exfoliative cytology has been directed toward the diagnosis of malignancy Important as this is, there are many other fields in our specialty in which cytology will help us The study of the menstrual cycle furnishes important data on the secretion of ovarian hormones and aids in recognizing the occurrence and time of ovulation The appearance, for instance, of endometrial cells in the vaginal fluid at times other than at menstruation indicates an abnormal situation Hyperestrinemia may be recognized, and a disturbed luteal phase may be apparent Anovulatory cycles may be postulated with considerable accuracy

Much more work is needed to describe a cellular pattern of pregnancy How important such a picture might be in the rapid diagnosis of extrauterine pregnancy need hardly be stressed Secondary amenorrheas may generally be recognized, together with an estimation of the degree of dysfunction, although no very definite knowledge of the etiology may be elicited, here a prognosis for treatment may be offered

Various infections of the lower vaginal tract may be studied, and trichomonads and monilia are easy to see One finds smears which seem somewhat typical of polypi and, we are beginning to think, of fibromyomata

Especially useful is the employment of the smear technic in the diagnosis of menopause and in evaluating the results of estrogenic therapy The use of this technic in this connection is very widespread, as it is very simple and easy to interpret

When one turns to the field of cancer diagnosis, it may be said that vaginal, cervical, and endometrial smears have proved to be the single most important addition to the detection of malignancy of the female genitalia of the last decade When dealing with cancer diagnosis, it is the accuracy of any method that is all important Here, as in any laboratory procedure, both technical skills and human equations are involved Statistics from representative centers throughout the world demonstrate uniformly high correlations between diagnoses by tissue biopsy and by cytology It should be stressed at this point that biopsy must remain the last resort In squamous cell carcinoma the per cent of agreement between these two methods is usually over 95 per cent, in adenocarcinoma it is lower by about 5 to 7 per cent

The most frequent objection to this method is that it is too time-consuming Actually, familiarity with smears tends to obviate this objection Indeed, it is not the positive cases which take a long time to interpret but the negative and suspicious ones It takes but a few minutes for the experienced cytologist to screen the average slide However, the word "experienced" should be given its proper meaning, and nothing more unfortunate could happen to this method than to have well-meaning but inexperienced cytologists attempt to use it Wrong diagnoses would be sure to follow, thus forcing the clinician to place little credence in interpretations Centers where the method may be taught to interested physicians are urgently needed, and the American Cancer Society is to be commended on its present program of fellowships in exfoliative cytology A well-trained man often may be able to make a

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diagnosis of carcinoma one-half hour after he has examined the patient, and this allows at least twenty minutes for the staining technic

A second objection often heard is that the staining technics are complicated, and this is a valid criticism There is now no rapid stain which gives sufficient transparency to see internal nuclear structure, although such technics have been described which are entirely adequate for endocrine study Work is going on at present in an attempt to develop a more rapid stain and, even more important, to develop a differential stain for malignant cells The problem is also being attacked from various other points of view, and the concentration of nuclei by physicochemical processes holds a certain promise of success

The use of properly trained nonmedical technicians as screeners should be encouraged, but such personnel should not be held responsible for the final diagnosis An ideal setup in a general hospital envisages a cytology laboratory in which the material is stained and screened by trained technicians The laboratory should be under the direction of a pathologist with training in cytology, and there should be representatives from the departments of surgery, medicine, and gynecology assigned to it Residents, especially those in pathology, should spend a specified time working here as a part of their training Material from outside sources should be welcomed, thus providing a diagnostic center for the community A nominal fee can be charged, and in a short time such a laboratory will become self supporting

Exfoliative cytology is still in its infancy In certain gynecologic problems it offers relatively little help For instance, it assists us hardly at all in the diagnosis of early pregnancy The correct evaluation of the menstrual cycle is difficult and not always clear cut, and this is especially true of the latter half of the cycle

The future of this technic, if it is not exploited by too much lay publicity or thrown into disrepute by the work of untrained men, is almost limitless This is not the proper place to discuss its value in the detection of cancer in other organ systems, important as this is proving to be A start has been made in an attempt to recognize premalignant lesions, and much more remains to be accomplished in this direction Fortunately, investigations with this method of Papanicolaou's are now proceeding in medical centers throughout the world Vitally needed now are strategically located laboratories to which physicians from all localities may forward material for interpretation As gynecologists, the early diagnosis of cancer of the female genitalia is all important to us, and this method provides another means to accomplish this objective

471 Park Avenue

Discussion

Hannah Peters, M D , *Rochester* —We would like to agree with Dr Mackenzie's statement that the study of vaginal cytology is of great value in gynecologic diagnosis Recently, we have become impressed with the value this rather simple procedure has in the treatment of seemingly ordinary cervical erosion Ideally, perhaps all cases of cervical erosion ought to be biopsied before local routine treatment is instituted. Realistically, however, in office practice a biopsy is too often not taken, and local treatment is started as soon as clinical examination and diagnosis are made

In a study of 200 consecutive office gynecologic cases, vaginal smears were taken as a routine in the course of a complete pelvic examination. Among these there were 64 cases of clinical cervical erosion. None of these lesions was clinically suspected of cancer The smear in two of these cases with erosion was reported as positive for malignant cells. Early malignancy was found in both these cases on histologic examination Prior to the use of the vaginal smear as a routine part of a gynecologic examination these patients would have been locally treated which would have prolonged the interval before treatment for malignancy could start.

Dr Mackenzie has mentioned the help the gynecologist can get from the smear in the guidance of endocrine therapy in the menopausal patient Much can be learned from the smear in the case of the woman entering the menopause whose menstrual flow has become irregular in amount, frequency, and duration

The estrogen-induced bleeding in the menopausal patient so frequently referred to the specialist's office will at times be as puzzling to the cytologist as estrogen-induced atypical hyperplasia might be to the pathologist.

A group of patients in whom we can learn much from the vaginal smear is those who have carcinoma of the cervix and who are treated by radiation therapy Daily study of the vaginal cytology during radiation therapy can give us information about tumor response and probable ultimate prognosis Moreover, if we are familiar with the cell changes during radiation therapy, if we have watched a positive smear become free of malignant cells after radiation therapy is completed, the reappearance of malignant cells at a later date becomes significant

If the vaginal smear should become part of a routine gynecologic examination, as we believe it should, two facts must be stressed in the procedure of preparing a satisfactory slide, which, of course, is necessary for satisfactory interpretation One involves re-education of the patient, namely, she must be instructed to present herself at the gynecologist's office without having taken a douche. The other involves the re-education of the physician, as the slide must be prepared before a palpatory examination is made.

It is hoped that the high correlation of accuracy between pathologic diagnosis and cytology will stimulate the practicing gynecologist to incorporate the vaginal smear into the routine of a complete pelvic examination.

SPONTANEOUS RUPTURE OF GRANULOSA CELL TUMORS OF THE OVARY WITH MASSIVE INTRA-ABDOMINAL HEMORRHAGE

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(From the Department of Obstetrics and Gynecology of the Methodist Hospital)

SPONTANEOUS rupture of a granulosa cell tumor in association with massive intra-abdominal hemorrhage is a problem encountered infrequently The occurrence of two such cases at the Methodist Hospital within less than eighteen months seemed worthy of report Survey of our records for thirty years revealed no other similar instances These two cases are presented as contributory evidence of the bizarre behavior of this interesting neoplasm During the past several years our concept of the behavior of granulosa cell tumors has been enhanced greatly The frequently quoted report of Novak and Brawner of 28 1 per cent clinical malignancy rate of these neoplasms has been substantiated in a greater or lesser percentage by many investigators [1-4] We have learned that recurrence of these tumors may be very delayed The report of Jones and Te Linde of three cases, dying eighteen, twenty, and twenty-one years after removal of the primary tumor, has recently been surpassed by Aimes *et al* [5 6] This French group reports excision of a retroperitoneal mass thirty-three years after primary removal of a granulosa cell tumor from a girl eight years of age We may go to Jones' and Te Linde's report again for a case illustrating the marked ascites and hydrothorax occasionally seen with granulosa cell tumor They report a case in which 2,000 cc of fluid was removed preoperatively from the chest cavity and 19,500 cc from the abdomen This tumor at operation revealed an intact capsule, no implants, and only slight adhesions to the broad ligament

We have grown accustomed to associating sterility with granulosa cell tumor in the menstruating woman, yet several cases of these neoplasms found in association with pregnancy have been reported, and Greenhill describes a case he operated on, in which the tumor was discovered by the family doctor immediately after full-term delivery [7 8] Another behavior aspect of granulosa cell tumor may be noted in the increasing reports of its association with adenocarcinoma of the uterus, hypertrophy of the uterus, and leiomyomas [9 10]

In the field of lower species experimentation we have been shown that the granulosa cell tumor forms readily in the ovaries of mice subjected to radiation and that these tumors will metastasize to distant organs, again, transplantation of a piece of such a tumor in the peritoneal cavity of related mice has resulted in growth [11] Li and Gardner in their work with mice are attempting to prove that the overaction of gonadotropic hormones is responsible for the development of granulosa cell tumors [12]

Case Reports

Case 1 —E S , thirty-two-year old, white Jewish housewife, gravida II, Para 1, was seen at home, complaining of seven-hour history of dull pain in right lower abdominal quadrant, slowly progressive in severity Ten weeks prior, operation had been advised by another gynecologist for a right ovarian cyst For three and one-half years patient had been sterile and for a three-year period had had irregular and infrequent menstrual periods, occurring every five, six, eight weeks to three months and lasting five days The past two cycles had been prolonged, averaging fourteen and ten days, respectively Her last menstrual period was forty-three days prior to admission. Slight increase in libido had been noted over past three years, weight was constant, no breast change and no hair distribution change had been noted Obstetric history revealed a spontaneous early abortion at twenty-three years, followed by a normal, full-term pregnancy at twenty-four years Examination at home disclosed a slightly enlarged, retroverted and sinisterverted uterus displaced by a moderately tender 10- to 12-cm. right ovarian cystic tumor

On admission to the hospital temperature was 99 8 F , pulse 65, and respirations 22, hemoglobin 11 7 Gm. (79 per cent), red blood cells 4,010,000, white blood cells 21,500 (polymorphonuclears 91 per cent), urine was negative, and sedimentation time fifteen minutes On moving the patient from her bed to a stretcher for examination, the patient went into sudden marked shock. She was taken immediately to the operating room and 1,000-cc transfusion of citrated whole blood begun

Operation was performed immediately under general anesthesia A right salpingo-oöphorectomy with cystectomy was performed The abdominal cavity contained an estimated 1,500 cc of gross, fresh blood. The cyst was anterior and revealed a 7-cm tear in its capsule No torsion was noted, the uterus, left tube, and ovary were grossly normal

Report of tissue examination was as follows Gross Description—Specimen consists of ovary and fallopian tube The ovary has been previously

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ruptured at one pole The ovary measures 11 0 by 9 0 by 4 0 cm. In the area of the rupture, the interior of the ovary is seen to consist of friable medullary type of tissue which contains a good deal of what is apparently fresh blood clot. In the poorly fixed portions of the specimen, the wall of the tumor is seen to consist of a brilliant yellow, soft, medullary type of tissue Cross section through the center of the tumor reveals a yellow stroma intermixed with areas of pinkish liquid softening

Microscopic examination—Section of ovarian tumor shows a moderately thick fibrous capsule which in one area shows a defect and some hemorrhage The tumor itself is a well-preserved, highly cellular tumor composed of fairly uniform polyhedral to elongated cells with vesicular nuclei and moderately prominent nucleoli The arrangement varies from solid sheets of cells to cylindromatous pattern and in a few places a microfollicular pattern The whole tumor is quite vascular, and the amount of stroma varies from scanty to considerable Mitotic figures are rare

Diagnosis—Granulosa cell tumor of right ovary with rupture and hemorrhage

The patient's postoperative course was uncomplicated Following discharge from hospital, periods became regular, occurring every thirty days and lasting five days She delivered a thirty-nine-week baby seventeen months after her date of operation Recent examination twenty-nine months after operation revealed no unusual pelvic or abdominal findings Periods are regular with thirty-day cycle and of five days duration

Case 2.—G G, thirty-five, a white telephone operator, gravida II, Para 1, complained of two-year history of sense of pressure in left lower abdomen. Menses occurred every five to six weeks for past three years, replacing normal twenty-eight-day cycle, and amount of flow decreased from five to three days There was a three-year history of sterility and no change in hair distribution, voice characteristics, or breast structure Obstetric history revealed a spontaneous abortion, early, at twenty years of age, followed by a full-term, normal pregnancy at twenty-three years

Admission pelvic examination revealed a "grapefruit-sized mass," free and slightly tender, of the left ovary, uterus was normal Temperature, pulse, and respirations were normal, hemoglobin 13 6 Gm. (92 per cent), red blood cells 4,650,000, white blood cells 9,700 (70 per cent polymorphonuclears), urine was negative, sedimentation time twenty minutes, nonprotein nitrogen 33, sugar 109

Operation consisted of curettage, total hysterectomy, bilateral salpingo-oöphorectomy, and appendectomy On opening the abdomen it was found filled with an estimated 500 cc of blood, the source of which was a left ovarian tumor with a rent in its capsule

Report of tissue examination was as follows Gross description—Specimen is totally removed uterus and cervix with attached right tube and ovary The body of the uterus measures 5 by 4 by 2 5 cm. The external os admits the tip of a pair of forceps The myometrium is firm and pinkish-gray in color The endometrium is smooth, velvety, and reddish in color The fallopian tube measures 7 by 1 5 cm. The surface is bluish-gray in color The ovary measures 4 5 by 2 5 by 2 cm and has been previously opened On section it contains small cysts measuring up to 3 mm. in diameter Another specimen consists of left ovary and tube. The ovary has a rent in its capsule, the capsule is pinkish-gray in color and appears cystic The ovary measures 6 by 4 by 3 5 cm., it is seen to contain a papillary cauliflower-like growth which is grayish-yellow in color and moderately firm in consistency

Microscopic examination—Sections of curettings show scanty endometrium in the proliferative phase. Sections of uterus show normal myometrium with attached layer of endometrium in the proliferative phase This layer is moderately thick but does not appear to be cystic or hyperplastic Sections of fallopian tubes are not remarkable A section of cervix shows parakeratotic squamous epithelium with moderate round-cell infiltration of the stroma. Sections of the right ovary show several follicle cysts immediately beneath the capsule, some of which are surrounded by a hemorrhagic zone In a deeper zone, however, apparently replacing a cystic cavity, there is a nest of tumor cells surrounded by hemorrhage The morphology of the tumor is similar to that seen in the left ovary and will not be separately described here. Numerous sections of left ovary show a tumor composed of solid sheets of round to polyhedral cells These tumor cells are rather uniform, contain round to ovoid nuclei with prominent nucleoli, and have a moderate amount of pale-staining cytoplasm and indistinct cell boundaries Occasional mitotic figures are seen The tumor as a whole has a rather solid pattern with solid nests of cells separated by a rather scanty fibrous stroma There appears to be no alveolar arrangement, and the tumor cells merge rather imperceptibly with the ovarian stroma, to which they have some resemblance In some areas of the tumor, however, the cells occur in columns and in still other areas there is suggestion of watered silk appearance. There are no microfollicles seen and only occasional acini. Still another section shows a somewhat cylindromatous pattern and in another there are rosettes but no definite follicles Fat stain of the tumors shows numerous very fine fat droplets in the cytoplasm of the well-preserved tumor cells However, there are greater amounts of fat in the degenerated areas

Diagnosis—Granulosa cell tumor of left ovary with cystic degeneration, perforation of capsule, and intraperitoneal hemorrhage, granulosa cell tumor in right ovary probably metastatic, multiple follicle cysts of right ovary, total uterus with endometrium in proliferative phase, chronic cervicitis with parakeratosis, fallopian tubes Postoperative course was uneventful

Following discharge from hospital patient received a course of fractional x-ray therapy totaling 7,200 r surface dose, depth dose 3,456 r Recent follow-up examination one year after operation re-

vealed no unusual pelvic or abdominal findings. Condition of patient was considered excellent

Comment

In Case 1 the factor precipitating rupture of the granulosa cell tumor was moving the patient from her bed to a stretcher In Case 2 the cyst apparently ruptured during the preoperative preparation or during curettage It is of interest to consider the factors that predispose the granulosa cell tumor to such ready rupture As Traut and Marchetti point out, the granulosa elements are poorly supplied with a supporting framework upon which to dispose themselves [13] They are less intimately supplied with blood vessels and thus are more prone to premature accidents. Then, too, the larger tumors may be subject to cystic degeneration, necrosis, and intracystic hemorrhage, torsion and infarction have been reported Von Friesen, of Sweden, echoes the above feeling [14] He states that spontaneous rupture of the granulosa cell tumor with hemorrhage is actually common if the relative infrequency of the neoplasm itself is considered, and rupture is not remarkable in view of the anatomic structure of the tumor He reports seven cases of rupture and massive hemorrhage in a series of 50 granulosa cell tumors

In this country the occurrence of rupture and marked hemorrhage is rather infrequently published Taussig, in 1931, reported such a case with 800 to 900 cc of blood found in the abdominal cavity [15] This cyst apparently ruptured during preoperative preparation of the vagina In 1933, Schultz described a similar rupture simulating ectopic pregnancy [16] Vogt, in 1940, reported a case of rupture occurring at the time of operation [17] No recurrence has been noted in a two year follow-up period Again in 1940, Dockerty and MacCarty published a similar case occurring in a fifty-nine-year-old gravida III, Para 1 [18] A grade 1 adenocarcinoma was found in the uterus No recurrence of symptoms was noted over a seven-year period The following year, 1941, Bach and Montgomery described a ruptured granulosa cell tumor, the diagnosis of which was made at necropsy [19] The abdominal cavity contained 900 cc of blood, and a dermoid was found in the opposite ovary This granulosa cell tumor revealed large areas of infarction and hemorrhagic necrosis A more recent case of rupture was reported by Bianco and Favorite with a total of 2,000 cc of serosanguinous fluid found in the peritoneal cavity [20] In England, Brewer noted in 1948 a rupture in two places of a 9 by 7 by 5 cm tumor associated with a total of 568 cc of blood and clots within the abdomen [21] An interesting case in which imminent rupture was avoided was reported last year by Toppozada of Farouk University Hospital in Alexandria, Egypt [22] He removed a granulosa cell tumor consisting of two large attached masses An aspiration of "2 5 L of almost pure dark blood" was performed in the second cystic mass to permit surgical delivery of the tumor

Another interesting consideration in cases of this type is the fate of the multiple tumor particles, macroscopic and microscopic, which must be strewn through the confines of the pelvic and abdominal cavities In this natural warm and moist environment can such particles survive? Have the prior degenerative changes and necrosis which would seem to be the precursors of such an accident vitiated the tissues in the area of rupture and drainage to the extent of making such particles weakly viable or nonviable? It will be necessary to follow such cases carefully for many years before one can hazard an opinion. Certainly, in the two cases presented, a follow-up of only two years and one year, respectively, is essentially valueless at this time

Summary

1 Two cases of spontaneous rupture of granulosa cell tumors with massive intra-abdominal hemorrhage are presented.

2 One case was followed by normal delivery in seventeen months

3 One case was associated with a comparable small lesion in the opposite ovary, possibly metastatic

4. Negative follow-up examinations at two years and one year, respectively, are of little prognostic value at present as to future recurrence or survival of tumor implants

502 EIGHTH AVENUE

I wish to express my appreciation to Dr G H. Davis for use of Case 2 and to Dr John Howe for his descriptions of the gross and microscopic pathology The microscopic sections of both cases were reviewed by Dr J Arnold de Veer of the Brooklyn Hospital and the sections of Case 2 were reviewed by Dr Frank Foote of the Memorial Hospital.

Discussion

Samuel A. Wolfe, M.D , *Brooklyn* —Spontaneous rupture is a rare finding in granulosa cell tumors I have had *no personal* experience with this complication. Several etiologic factors are possible (1) torsion of the tumor with interstitial hemorrhage and necrosis, (2) malignant perforation with secondary rupture, or (3) rupture of a cystic segment of the granulosa tumor due to increasing fluid pressure Such a tumor with a cystic compactment was noted by Wolfe and Kaminester in their series

Granulosa tumors originally considered benign show a high rate of malignancy reaching an incidence of almost 30 per cent Accordingly, when a granulosa cell tumor is identified at operation, decision as to therapy is difficult. In a patient over thirty-five years of age, especially if she has

borne children, radical removal of the uterus and adnexae is indicated Fortunately, this is feasible since granulosa cell tumors generally occur in elderly women. Younger patients with whom child-bearing is of consequence should have simple salpingo-oöphorectomy if there is no gross evidence of malignancy, i.e, perforation of the capsule or infiltration of the mesovarium. Immediate study of a frozen section from the removed tumor should be of great help in directing surgical therapy

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23,260 VETERANS TO STUDY MEDICINE

A Veterans Administration study of the principal courses and employment objectives of 2,535,385 veterans enrolled in school and job training establishments under the G I Bill and Public Law 16 on December 1, 1948, shows that veteran-students in the medical sciences represented 3 per cent of the total number of all trainees Of the 78,143 veterans enrolled under the G I Bill, more than one third, or 23,260 were taking courses in medicine and surgery The rest were studying in the following fields

Dentistry	7,603
Nursing	3,955
Osteopathy	918
Pharmacy	11,668
Veterinary medicine	2,036
Chiropractic	3,287
Optometry	3,374
Chiropody	1,107
Physical Therapy	325
Occupational therapy	156
Laboratory technic	1,240
Dental hygiene	103
Dental mechanics	2,738
Medical service	250
Public Health	399
Bacteriology	600

Premedical, predental, and preveterinary students numbered 14,784. Seventy per cent of these, or 10,487, were in premedical courses

Under Public Law 16—an act providing training for those with service-connected disabilities—veterans training in the medical professions numbered 5,168

Of these, 1,540 were enrolled in medical courses, 1,207, pharmacy, 904, dentistry, 505, chiropracty, 469, veterinary, 194, nursing, and 349, medical services

Eligibility for G I Bill training consists of (1) active military service some time between Sept 16, 1940, and July 25, 1947, (2) service of at least 90 days, or a discharge for a service-connected disability if released before 90 days' service, and (3) a discharge under conditions other than dishonorable For Public Law 16, requirements are (1) military service between the 1940 and 1947 dates, (2) a discharge other than dishonorable, (3) a compensable service-connected disability, and (4) VA's determination that training is necessary to overcome a handicap While in training, veterans may receive a subsistence allowance from VA.—*J A M A, July 30, 1949*

MECKEL'S DIVERTICULUM

A Twenty-Year Survey and Report of an Unusual Case

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(From the Surgical Service of the Lenox Hill Hospital)

IN 1809 and again in 1812, Meckel gave the first classic description and embryologic explanation of this anomaly Since then numerous contributions have been made to the literature The occurrence of Meckel's diverticulum is not rare, since it is found in about 2 per cent of all postmortem examinations It is two to four times more frequent in males than in females In location it varies but averages 20 inches proximal to the ileocecal valve In most cases the diverticulum arises from the antimesenteric border of the ileum, although it may originate from the mesenteric aspect In size it ranges from a mere nubbin to 10 inches in length, and in diameter it may equal the ileal lumen.

The embryologic origin is from the remnant of the omphalomesenteric duct (Vitelline duct or yolk stalk) connecting the midgut with the yolk sac Several variations of development may occur Eisendrath has recorded the potential variants which may exist (1) A complete canal may persist, opening at the umbilicus and communicating with the lumen of the ileum, (2) either the umbilical or the intestinal portion of the canal may persist, the usual Meckel's diverticulum being formed when the intestinal portion exists alone, (3) an intermediate portion of the canal may persist giving rise to a cyst due to retained secretion, and (4) the entire canal may be represented by a residual cord or closed band containing the umbilical vessels [1]

Histologically, the structure is usually that of ileum, but the presence of tissues such as pancreas, stomach, colon, and duodenum have been reported It is most often asymptomatic but may initiate any of the following complications (1) acute diverticulitis, (2) acute diverticulitis with perforation and peritonitis, (3) mechanical intestinal obstruction, (4) ulceration and hemorrhage from heterotopic gastric mucosa, (5) intussusception, and (6) congenital fecal fistula Various specific infections and neoplasms may also arise in the diverticulum. All of these complicating events have been described Recently, Morlock and Bennett reported an unusual case of an umbilical fecal fistula, originating in a Meckel's diverticulum, in a seventy-five-year-old woman [2] The case which we are reporting also represents in an adult a fecal fistula exiting lateral to the umbilicus and, therefore, probably not representing a congenitally patent canal.

Case Report

A fifty-one-year-old white man was admitted to the surgical service in December, 1947 Chief complaint was a red swelling of the left abdominal wall of three weeks duration with spontaneous drainage of pus for two days prior to admission In 1917, he had been operated on for a similar abscess in the identical location This was incised and drained and closed uneventfully In 1927, he was again hospitalized and a laparotomy performed for an acute appendicitis with perforation These case records are not available The remainder of the history is negative Following appendectomy, he had been in good health until the present complaint.

Examination revealed a well-developed male, not acutely ill At the level of the umbilicus and 2 inches to the left of the midline, an irregular retracted scar was noted with a large, indurated, reddened and tender mass, 3 inches in diameter, centered over the lateral angle of the scar At the middle of this swelling a small draining sinus could be probed The blood count was normal One day after admission the abscess was incised and drained, the abscess cavity extending down to the rectus sheath, and in one area appearing to pierce the sheath Culture was returned as Escherichia coli A flat film and a barium clysma were both reported as negative There was no evidence of any foreign body The wound continued to drain purulent material and showed little evidence of closing He was discharged on the fourteenth hospital day with a final diagnosis of abscess of the abdominal wall

After several follow-up dressings the wound closed He was not seen again until three months later when he returned with a recurrent draining sinus at the same site, was readmitted, and the tract and underlying abscess cavity explored and excised Postoperatively, the draining sinus again persisted At this time the tract could be probed for a distance of 6 inches and seemed to extend towards the right lower quadrant. A Meckel's diverticulum was not considered because of the lateral exitus of the sinus A Number 12 ureteral catheter was introduced into the tract, and 20 cc of lipiodol were injected Films were reported as follows "Examination reveals an opaque catheter extending through the abdominal wall along a periumbilical tract towards the region of the terminal ileum. An opaque media has been injected and outlines the distal small intestine" (Fig 1) A Meckel's diverticulum was then considered, in spite of the aberrant location of the tract

Four months after his original admission a laparotomy was performed, a catheter being first inserted through the tract for a distance of 12 inches The abdomen was opened through a midline suprapubic incision Exploration revealed a typical



FIG 1 X-ray showing opaque catheter introduced into sinus tract with lipiodol visualization of the distal ileum

Meckel's diverticulum arising at a point 14 inches proximal to the ileocecal valve on the antimesenteric border of the bowel passing to the anterior abdominal wall lateral to the umbilicus The distal third of the diverticulum was adherent to the parietal peritoneum to the left of the midline The diverticulum was easily dissected free and resected It measured 1 inch in greatest diameter and 6 inches in length, being lined throughout by mucosa After an uneventful recovery, the patient was discharged on the twelfth postoperative day He has been clinically well during the past nine months Pathologic report was as follows "Chronically inflamed Meckel's diverticulum Mucosa of the ileal type and no heterotopic tissue observed "

Discussion

The above described complication of fecal fistula has not been reported in the literature Morlock and Bennett were unable to find any record of an umbilical fecal fistula secondary to a Meckel's diverticulum occurring in an adult, their case being the first published report [2] Considering the embryology of the anomaly, the present case in all probability does not represent a congenital persistent midline canal connecting umbilicus and ileum, since the fistulous tract exited 2 inches lateral to the midline and on exploration did not involve the umbilicus One would be led to believe that we are dealing with a diverticulum which originally rested free within the peritoneal cavity Apparently thirty years prior to his admission at Lenox Hill Hospital, he had developed an abdominal wall abscess secondary to a Meckel's diverticulum which had become adherent at its tip to the anterior abdominal wall lateral to the umbilicus This process drained and subsided and remained quiet for a period of thirty years only to recur with the development of another abdominal wall abscess at the same site with subsequent postoperative fecal fistula

Survey of Cases at the Lenox Hill Hospital—1928 to 1948 —The records of the Hospital for this twenty-year period show a total number of 21 cases of Meckelian diverticuli, excluding the present case The following statistical facts were noted

1 Age Youngest, eight months, oldest, sixty-three years, average age, twenty-seven years
2 Sex Male, 12, female, 9
3 Position Average distance from ileocecal valve, 16 inches In all but one case it arose from the antimesenteric border
4. Size 1 inch in diameter and 2 inches in length (average)
5 Ileal mucosa present in all cases except one in which gastric mucosa was noted
6 Mortality One patient died of a perforated diverticulitis with secondary peritonitis and intestinal obstruction
7 In no case where a diseased diverticulum was found was such diagnosis made preoperatively
8 Pathology
   (a) In 11 of the 21 cases a nonrelated, asymptomatic, noninflamed Meckel's diverticulum was found, in addition to the primary lesion for which the patient was operated
   (b) A noninflamed Meckel's diverticulum was the causative agent in small bowel intussusception in two cases, both under one year of age
   (c) In an eleven-month old child the diverticulum persisted as a patent umbilical fecal fistula from birth
   (d) In one case an acute Meckel's diverticulitis was found incarcerated in a right indirect inguinal hernial sac
   (e) In six cases an acute Meckel's diverticulitis existed as the primary lesion Three of these had perforated with resulting peritonitis and secondary obstruction of the ileum The preoperative diagnosis in all six cases was acute appendicitis
   (f) In no case did an ileal fistula occur in an adult

The findings in this survey coincide with those of existing reports Figures regarding age, position, and size are those usually quoted The

sex ratio shows a higher percentage of females than is expected This may well be due to the fact that several were found incidentally in patients undergoing hysterectomy The presence of ileal mucosa in all but one case conforms to the normal, although the report of gastric mucosa in one diverticulum represents an occasional histologic finding It is important to note that the diagnosis of acute Meckel's diverticulitis was not made in any of the six cases, affirming the fact that the lesion is rarely recognized and that it must be considered in any evaluation of the acute abdomen In 53 per cent of the cases the diverticulum proved to be an incidental finding, this being typical of most reported series of the anomaly The case of a congenital fecal umbilical fistula demonstrates a rare but potential complication The two cases of intussusception reinforce the impression that a Meckel's diverticulum is an important initiating factor in small bowel intussusception in infants Lastly, the finding of an acute diverticulitis incarcerated in a hernial sac is unusual and has not been previously noted, providing still more evidence of the versatility of this anomaly

Summary

A brief discussion of Meckels diverticulitis is presented An interesting case of recurrent abdominal wall abscess and ileal fistula in an adult secondary to a Meckel's diverticulum is cited, and a twenty-year incidence of the diverticulum at a large voluntary hospital is analyzed and discussed

References

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SIGMOIDORECTAL ELECTROSURGICAL SNARE

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(*From the Surgical Services of Beth Israel and Montefiore Hospitals*)

THIS instrument consists of a pistol-like handle that fits well into the average-sized hand, affording a firm grip, and it does not interfere with the visualization of the lesion to be treated (Figs 1, 2, 3) To the top of this handle there is attached a unit which, at its distal end, receives a well insulated tube or stem with its stainless metal carrier of the snare wires The wire carrier at its distal end has four perforations, any two of which receive specially bent ends of the snare wire and determine the desired size of the wire loop, this carrier may be substituted by a hinged, loop snare wire (Fig 2)

The insulated tube or stem is made in various lengths, 6 inches (15 cm), 10 inches (25 cm.), and 14 inches (35 cm), and is held firmly by a screw-on mechanism. A similar screw-on attachment, located on the right side of the unit holding the snare wire carrier, has a range of 2 5 inches (6 5 cm) and is moved easily forward and back with the index finger of the hand grasping the

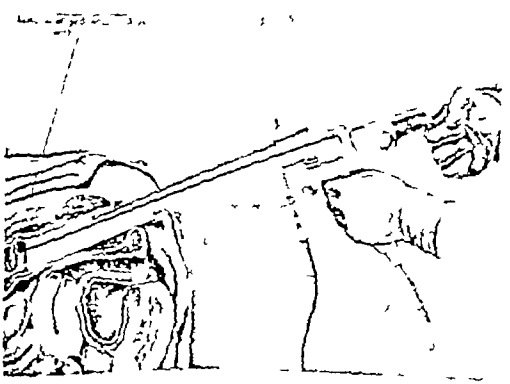


FIG 1 The snare in position for operation

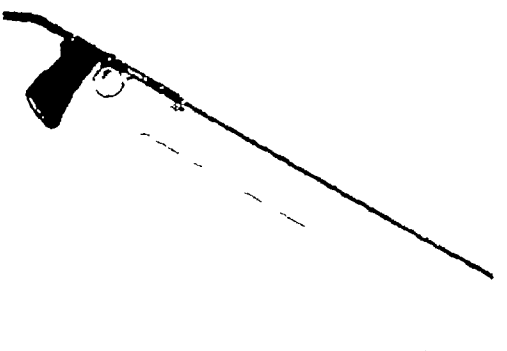


FIG 2 Handle with stem attached Adjacent to the stem lies the carrier for adjustable snare wire, and outside of this lies the hinged loop snare wire

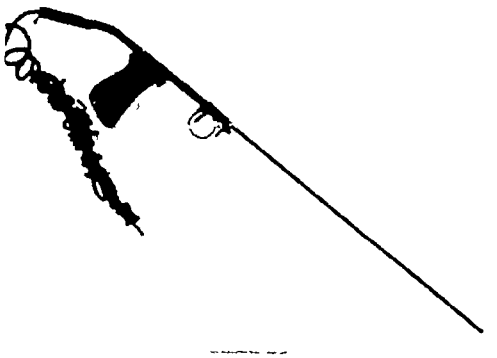


FIG 3 The assembled snare [2]

handle through a metal ring designed for this purpose (Figs 1, 2, 3) Through the distally placed tip of the handle (Figs 3, 1) the snare is connected to an electrosurgical generator designed for coagulation and cutting

To remove a polypoid lesion, its pedicle or stalk is caught in a loop about 0 25 to 0 5 cm below the mucosal base, is gradually strangulated, and finally severed or amputated by pulling the electrically activated wire loop into the stem (Figs 1, 4) Better hemostasis may be effected by the employment of the coagulating rather than the cutting current If desired the remaining short stump or base may be desiccated using the tip of the wire loop or specially designed electrodes [1]

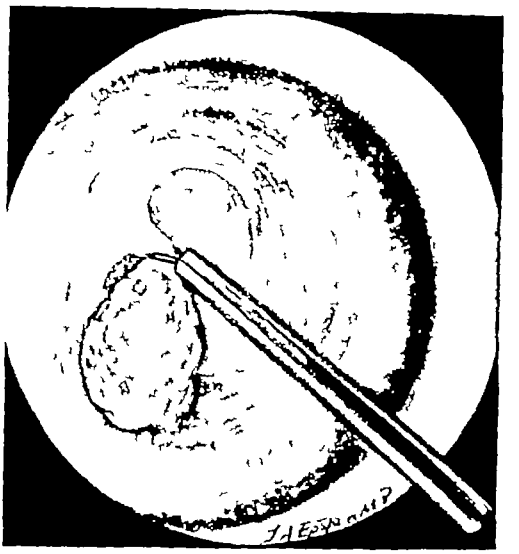


FIG 4 Magnified view showing the relationship of the wire loop to the pedicle or stalk.

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My thanks are due to Mr F J Wallace president of the American Cystoscope Makers, Inc. New York City for his cooperation.

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PATIENTS IN BRITAIN OVERDO FREE RIDES

So many things are provided free to patients under Britain's National Health Service that it would seem, from a superficial glance that a slightly extra burden in one direction or another would hardly make much difference Yet there is a continual battle on the part of the Ministry of Health to keep the demands of ailing persons—and some not so ailing—within reasonable bounds

Free rides in "ambulances," most of which are in reality private cars provided by volunteer owners and operated by various ambulance brigades, are being taken advantage of by an increasing number of people to the point where the Ministry, according to the *London Sunday Express*, has warned that the service may break down unless the demands are curtailed

An instance was cited of a titled woman who called for a car to take her maid and herself from a London apartment to her country place on the East Coast on the ground that she was suffering from arthritis She made a small donation to the driver, but nothing what a private conveyance would have cost

Strictly speaking, the service is supposed to be only for the benefit of those patients incapable of using ordinary means of transportation, but, as it has worked out, the ambulance drivers receive calls from all sorts of people anxious to be taken on various jaunts, principally for drives into the country, where they intend to spend some time convalescing

Other patients have cars pick them up regularly each week to take them to doctors' offices for massage and other treatments. There is nothing the ambulance brigades can do about refusing the applications, it is said, provided the patient has been able to prevail upon a doctor to certify that public transport would be harmful.—*New York Times, July 9, 1949*

ANTIHISTAMINIC THERAPY OF ALLERGIC DISORDERS IN INFANTS AND CHILDREN

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THE purpose of this study is to determine the relative effectiveness and dosage of Benadryl, Diatrin, and Pyribenzamine in over 309 infants, children, and adolescents with amenable allergic disorders The test period for each drug was two to four weeks, allowing a week for the shift to another drug The cases, ranging from one week to seventeen years of age, were examined biweekly to evaluate the effects and side-effects of the antihistaminic therapy Effects observed thirty minutes after oral administration lasted for several hours Consequently, each drug was offered after feedings and at bedtime if allergic symptoms were constant and after any feeding or whenever necessary if the symptoms were intermittent Appraisal of subjective responses was attained by teaching parents to record their observations in terms of time, duration, severity, and frequency of attacks Clinical evaluation of symptomatic drugs becomes a first approximation because of the variability of the allergic state and antiallergic activity in the same child at different times

Antihistaminic Dosage

The amount of antihistaminic administered to obtain the desired therapeutic effect without untoward manifestations was determined for each drug Each drug was offered in an elixir vehicle or in tablet form The initial dose was small and probatory, gradually increased according to tolerance and effectiveness, and decreased or discontinued with evidence of side-effects Since the dosage of Benadryl and Pyribenzamine has been established to be about 2 mg per Kg body weight for children, we estimated the dosage of Diatrin at each age level.

The three antihistaminics are well tolerated, since they act on the relatively underdeveloped cerebral cortex in infancy The response in childhood was similar to that observed in adults Continuous therapy involved four doses daily, after feedings and at bedtime Intermittent therapy involved a single dose whenever necessary, effective within thirty minutes and lasting for several hours The action of an antihistaminic is almost immediate, hence its tolerance, effectiveness, and toxicity was determined promptly Once established it was alternated with another antihistaminic within seven to ten days to compare relative value and dosage, respectively Despite promptness of action of the antihistaminics, no attempt was made to replace them for epinephrin in emergencies because their immediate effectiveness is less satisfactory

The correct dosage was difficult to estimate in terms of any simple factor such as age and weight of the child or severity and duration of the allergic illness The closest approximation was in terms of body weight, but the dose range was relatively wide for each age level depending on the intensity of the illness Application of Fried's, Clark's, or Young's rule was futile for the individual infant or child although the general principle obtained There was no substitute for close observation of

TABLE 1 —Diatrin Dosage in Infants and Children

Age	Average Weight (Pounds)	Number of Cases	Dose Range (Mg. per 24 Hours)	Average Dose (Mg. per 24 Hours)	Average Dose (Mg per Pound Body Weight)
Months 3	13 0	2	3–8	5 0	0 5
6	17 5	2	4–10	5 0	0 5
9	20 5	2	8–20	15 0	0 6
12	22 5	2	10–25	15 0	0 6
15	25 0	4	10–25	20 0	0 8
18	26 5	2	10–30	20 0	0 8
21	28 0	2	10–30	20 0	0 8
24	30 0	2	10–30	20 0	0 8
Years 2 5	32 0	3	15–25	25 0	0 9
3 5	36 0	5	25–45	35 0	1 0
4 5	38 5	3	25–50	40 0	1 0
5 5	43 5	6	40–80	60 0	1 1
6 5	48 0	4	40–80	60 0	1 1
7 5	52 5	4	50–80	60 0	1 2
8 5	58 5	3	50–100	80 0	1 2
9 5	64 5	5	55–100	80 0	1 3
10 5	70 5	4	60–90	80 0	1 3
11 5	77 0	5	70–100	80 0	1 3
12 5	85 0	4	60–150	100 0	1 3
13 5	95 0	4	80–150	115 0	1 3
14 5	107 0	2	100–200	150 0	1 5
15 5	123 5	2	150–350	180 0	1 5
16 5	133 0	2	150–350	200 0	1 5
17 5	140 0	2	150–400	220 0	1 5

the individual problem. Nevertheless, we found a satisfactory guide to the dosage of Diatrin Infants 5 to 25 mg per twenty-four hours or 0 5 to 0 8 mg per pound body weight, children 25 to 75 mg per twenty-four hours or 0 8 to 1 2 mg per pound of body weight, and adolescents 75 to 200 mg per twenty-four hours or 1 2 to 1 5 mg per pound of body weight (Table 1)

Gastrointestinal Allergy

Gastrointestinal symptoms, with or without other allergic manifestations, may occasionally be indicative of an antigen-antibody reaction with the intestinal wall as the shock organ Two newborns thrived on their milk mixtures for a fortnight and then began to vomit, show colicky pain, and pass loose stools tinged with bright red blood Diatrin syrup, 10 to 20 drops after feedings, decreased but did not abolish the sensitization to cow's milk. Six infants with pylorospasm, colicky pain, and diarrhea were found to be sensitive to milk, wheat, orange, tomato, and eggs, by clinical trial as well as by skin test reaction Diatrin and Pyribenzamine syrup, respectively, ½ teaspoon three times a day, relieved the intensity of the symptoms as long as the drugs were administered Complete relief was obtained only with elimination of allergic offenders

Fifteen older children with abdominal allergy were more responsive to antihistaminics Four children avoided specific foods because of the immediateness of digestive symptoms following ingestion of the reacting food Intradermal tests showed an immediate wheal reaction to known offenders Diatrin syrup after ingestion of such foods neutralized the allergic reaction and thus prevented the so-called allergic indigestion Two children developed more acute attacks of gastroenteritis with vomiting, epigastric pain, diarrhea, edema of the face and mouth, and general urticaria following ingestion of shellfish, nuts, and cottonseed products, confirmed by the immediate wheal skin test Diatrin aborted attacks, but the offending foods produced visceral discomfort Three children with recurrent vomiting due to food hypersensitiveness were not relieved of these attacks by antihistaminics Six children with chronic diarrheal disorders, with proved food allergy also failed to respond to antihistaminics (Table 2)

TABLE 2.—Therapeutic Effects of Antihistaminics in Gastrointestinal Allergy

Group	Number of Cases	Vomiting	Colic	Diarrhea
Degree of Improvement According to Symptoms				
Newborns	6	−	+	−
Infants	16	−	+	+
Children	29	+	+	+
Degree of Improvement According to Antihistaminic				
Benadryl	17	30	45	25
Diatrin	17	35	50	25
Pyribenzamine	17	35	50	25

Seasonal Hay Fever

Pollen hypersensitiveness in the infant takes the form of a recurring summer cold with watery mucous discharge, intermittent nasal blockage, and streaming eyes, but without the paroxysmal sneezing attacks that occur in the child All the 56 children studied were receiving desensitization therapy to specific pollen allergens, hence antihistaminic administration constituted adjuvant therapy The symptoms of hay fever, presented singly and in various grades and combinations, were alleviated promptly by antihistaminics. The order of response was itching of the eyes, nose, and throat, sneezing, rhinorrhea, and nasal blocking, respectively, and the effect was noticeable on the first day of treatment Each of the three antihistaminics controlled the symptoms, but it required less Diatrin than Pyribenzamine or Benadryl to obtain the desired results Even children receiving no pollen therapy were benefited by antihistaminics, but the greatest improvement was observed in cases of moderate pollen sensitiveness undergoing pollen therapy The few children with high degree of pollen sensitivity fared poorly It is obvious that the usual annual experience of providing 80 per cent relief for 80 per cent of the treated children has thus been improved with antihistaminic therapy, an improvement that was evident from the first day of treatment (Table 3)

TABLE 3.—Therapeutic Effects of Antihistaminics in Seasonal Hay Fever

	Total Cases	Rhinorrhea	Sneezing	Nasal Itching	Nasal
Degree of Improvement According to Symptom					
Infants	5	70		90	60
Children	20	84	81	92	72
Adolescents	32	82	85	88	75
Degree of Improvement According to Antihistaminic					
Benadryl	19	72	80	85	65
Diatrin	19	80	85	90	75
Pyribenzamine	19	75	82	88	70

Vasomotor Rhinitis

Perennial hay fever is characterized by attacks of sneezing, nasal obstruction, and rhinorrhea, irrespective of the season of the year In one group of children the paroxysms of sneezing, nasal itching, and congestion—often mistaken for head colds—occur on arising, persist until noon, and recur in the evening In another group of children the persistent nasal congestion, often mistaken for paranasal sinusitis, causes mouth breathing and eventually adenoid facies The causative factors in both groups are a multiplicity of sensitizations by airborne substances

TABLE 4.—THERAPEUTIC EFFECTS OF ANTIHISTAMINICS IN VASOMOTOR RHINITIS

	Number of Cases	Sneezing	Nasal Itching	Nasal Discharge	Nasal Obstruction
	Per Cent of Cases Benefited According to Symptom				
Type of rhinitis					
Recurrent	44	60	65	55	45
Chronic	28	50	55	40	90
	Per Cent of Cases Benefited According to Antihistaminic				
Type of antihistaminic					
Benadryl	34	50	50	40	40
Diatrin	24	60	65	50	45
Pyribenzamine	34	55	55	45	45

such as dusts, animal danders, and vegetable powders, by foods, drugs, spores, and bacteria, by physical allergens, such as heat and cold, and by endocrine and metabolic disturbances The affected child is usually in continuous contact with these sources of offense, hence most therapeutic attempts are without avail unless the causative allergens are determined and eliminated They can readily be ascertained by skin tests and elimination diets and the diagnosis confirmed by positive eosinophilic nasal smears Antihistaminics have been given to alternate cases in each group in the form of Benadryl, Diatrin, and Pyribenzamine, respectively The therapeutic effect was less striking than in seasonal hay fever, because the former is due to multiple allergens while the latter to pollen allergens alone The response was far better in recurrent than in chronic allergic rhinitis (Table 4)

Bronchial Asthma

Antihistaminic action differentiated the types of asthma in infants and children Each of the three antihistaminics was effective in the primary hereditary type, occasionally effective in the secondary acquired type, and completely ineffective in the residual lung injury type of asthma To negate antihistaminic value in asthma because of the high percentage of failure is to remain oblivious to the various types of asthma encountered in pediatric practice About one third of the 45 asthmatic patients were benefited by antihistaminics given early and in adequate dosage The drug was usually prescribed at the onset of or during an attack in conjunction with other therapeutic measures In a few cases, because the children complained of excessive dryness of the mucous membranes or tightness of the chest, the drug was discontinued Diatrin was more helpful than Pyribenzamine and each better than Benadryl, but severe attacks were not halted by any of the antihistaminics without aminophyllin or epinephrin.

The hereditary infantile type of asthma developed gradually with recurrent cough, wheezing, and dyspnea. Some of the five infants were treated for recurrent bronchitis until the great frequency, rapid onset and offset, characteristic wheeze, and bilateral allergic heredity established the diagnosis The cause in four cases was infection complicated by sensitivity to extrinsic agents, and in one case it was acute systemic food reaction. There was little difficulty in differentiating infectious from allergic asthma In the former, there were marked constitutional symptoms following exposure to infection, hyperemic mucous membranes, and mucopurulent discharge predominating in neutrophils In the latter, there were mild constitutional symptoms, edematous mucous membranes, unless secondarily infected, and thin mucoid secretion charged with eosinophils Each of the antihistaminics, especially Diatrin, was helpful in alleviating the cough, more effectively than the dyspnea or wheeze, if administered at the onset However, the hereditary childhood type of attack, which developed suddenly and inexplicably at night with severe dyspnea, little or no cough, and audible wheeze, was less responsive to antihistaminics The frequency and severity of the nocturnal attacks in eight cases were diminished somewhat by bedtime antihistaminic therapy until the underlying cause was determined

The secondary acquired type of asthma is a variant of the hereditary type following infantile eczema or childhood hay fever Attacks complicating eczema in 12 children tended to persist into puberty with little diminution in frequency or severity in the warmer or colder months, while attacks accompanying hay fever in 14 children were seasonal and limited to their specific pollen sensitivity Many of the cases in each group complicated by infective asthma were less violent than in infancy but more prolonged or even chronic into puberty Antihistaminics alleviated asthma due to inhalant or ingestant allergy but not that due to infective or eczematous origin. Fourteen children with pollen or food asthma responded promptly, while 12 with infective asthma and eczema-asthma syndrome, respectively, obtained no relief from antihistaminics. Evaluation of antihistaminic therapy was rather difficult because an asthmatic attack was often the resultant of infective and noninfective allergy

the individual problem Nevertheless, we found a satisfactory guide to the dosage of Diatrin Infants 5 to 25 mg per twenty-four hours or 0 5 to 0 8 mg per pound body weight, children 25 to 75 mg per twenty-four hours or 0 8 to 1 2 mg per pound of body weight, and adolescents 75 to 200 mg per twenty-four hours or 1 2 to 1 5 mg per pound of body weight (Table 1)

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TABLE 2.—THERAPEUTIC EFFECTS OF ANTIHISTAMINICS IN GASTROINTESTINAL ALLERGY

Group	Number of Cases	Vomiting	Colic	Diarrhea
Degree of Improvement According to Symptoms				
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TABLE 3.—THERAPEUTIC EFFECTS OF ANTIHISTAMINICS IN SEASONAL HAY FEVER

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Pyribenzamine	19	75	83	88	70

Vasomotor Rhinitis

Perennial hay fever is characterized by attacks of sneezing, nasal obstruction, and rhinorrhea, irrespective of the season of the year In one group of children the paroxysms of sneezing, nasal itching, and congestion—often mistaken for head colds—occur on arising, persist until noon, and recur in the evening In another group of children the persistent nasal congestion, often mistaken for paranasal sinusitis, causes mouth breathing and eventually adenoid facies The causative factors in both groups are a multiplicity of sensitizations by airborne substances

TABLE 4.—THERAPEUTIC EFFECTS OF ANTIHISTAMINICS IN VASOMOTOR RHINITIS

	Number of Cases	Sneezing	Nasal Itching	Nasal Discharge	Nasal Obstruction
	Per Cent of Cases Benefited According to Symptom				
Type of rhinitis					
Recurrent	44	60	65	55	45
Chronic	28	50	55	40	90
	Per Cent of Cases Benefited According to Antihistaminic				
Type of antihistaminic					
Benadryl	24	50	50	40	40
Diatrin	24	60	65	50	45
Pyribenzamine	24	55	55	45	45

such as dusts, animal danders, and vegetable powders, by foods, drugs, spores, and bacteria, by physical allergens, such as heat and cold, and by endocrine and metabolic disturbances The affected child is usually in continuous contact with these sources of offense, hence most therapeutic attempts are without avail unless the causative allergens are determined and eliminated They can readily be ascertained by skin tests and elimination diets and the diagnosis confirmed by positive eosinophilic nasal smears Antihistaminics have been given to alternate cases in each group in the form of Benadryl, Diatrin, and Pyribenzamine, respectively The therapeutic effect was less striking than in seasonal hay fever, because the former is due to multiple allergens while the latter to pollen allergens alone The response was far better in recurrent than in chronic allergic rhinitis (Table 4)

Bronchial Asthma

Antihistaminic action differentiated the types of asthma in infants and children. Each of the three antihistaminics was effective in the primary hereditary type, occasionally effective in the secondary acquired type, and completely ineffective in the residual lung injury type of asthma To negate antihistaminic value in asthma because of the high percentage of failure is to remain oblivious to the various types of asthma encountered in pediatric practice About one third of the 45 asthmatic patients were benefited by antihistaminics given early and in adequate dosage The drug was usually prescribed at the onset of or during an attack in conjunction with other therapeutic measures In a few cases, because the children complained of excessive dryness of the mucous membranes or tightness of the chest, the drug was discontinued Diatrin was more helpful than Pyribenzamine and each better than Benadryl, but severe attacks were not halted by any of the antihistaminics without aminophyllin or epinephrin

The hereditary infantile type of asthma developed gradually with recurrent cough, wheezing, and dyspnea Some of the five infants were treated for recurrent bronchitis until the great frequency, rapid onset and offset, characteristic wheeze, and bilateral allergic heredity established the diagnosis The cause in four cases was infection complicated by sensitivity to extrinsic agents, and in one case it was acute systemic food reaction There was little difficulty in differentiating infectious from allergic asthma In the former, there were marked constitutional symptoms following exposure to infection, hyperemic mucous membranes, and mucopurulent discharge predominating in neutrophils In the latter, there were mild constitutional symptoms, edematous mucous membranes, unless secondarily infected, and thin mucoid secretion charged with eosinophils Each of the antihistaminics, especially Diatrin, was helpful in alleviating the cough, more effectively than the dyspnea or wheeze, if administered at the onset However, the hereditary childhood type of attack, which developed suddenly and inexplicably at night with severe dyspnea, little or no cough, and audible wheeze, was less responsive to antihistaminics The frequency and severity of the nocturnal attacks in eight cases were diminished somewhat by bedtime antihistaminic therapy until the underlying cause was determined

The secondary acquired type of asthma is a variant of the hereditary type following infantile eczema or childhood hay fever Attacks complicating eczema in 12 children tended to persist into puberty with little diminution in frequency or severity in the warmer or colder months, while attacks accompanying hay fever in 14 children were seasonal and limited to their specific pollen sensitivity Many of the cases in each group complicated by infective asthma were less violent than in infancy but more prolonged or even chronic into puberty Antihistaminics alleviated asthma due to inhalant or ingestant allergy but not that due to infective or eczematous origin Fourteen children with pollen or food asthma responded promptly, while 12 with infective asthma and eczema-asthma syndrome, respectively, obtained no relief from antihistaminics Evaluation of antihistaminic therapy was rather difficult because an asthmatic attack was often the resultant of infective and noninfective allergy

TABLE 5.—Therapeutic Effects of Antihistaminics in Bronchial Asthma

	Number of Cases	Dyspnea (Per Cent)	Cough	Wheeze
Per Cent of Cases Benefited According to Symptom				
Type of Asthma				
Primary (Hereditary)				
Infantile	6	20	40	20
Childhood	9	25	50	20
Secondary (Acquired)				
Childhood	26	20	30	25
Residual lung injury				
Childhood	4	0	0	0
Per Cent of Cases Benefited According to Antihistaminic				
Type of Antihistaminic				
Benadryl	15	22	40	20
Diatrin	15	25	45	20
Pyribenzamine	15	20	40	20

The residual lung injury type of asthma followed severe infectious disease in four older children studied They showed but few of the characteristics of the previous types, i e, no allergic family history, no associated allergic manifestations, no attacks beyond the winter months, and no freedom from bronchitis between attacks In three children the asthma was mildly continuous but with frequent exacerbations, and in one case it was intermittent and paroxysmal accentuated by physical effort, fatigue, and exposure to cold None of the antihistaminics had the slightest beneficial effect on any of these cases (Table 5)

Allergic Dermatoses

Acute urticaria was relieved symptomatically within a day, while specific measures were instituted It is well to remember, however, that spontaneous relief occurs regardless of the type of treatment instituted The intense pruritis was alleviated more effectively than the edema or erythema in five of the six cases of food allergy accompanied by acute gastroenteritis Each of the three antihistaminics was useful in reducing the number of lesions and the skin susceptibility for scratch or intradermal tests Diatrin was equal to Pyribenzamine and better than Benadryl in efficacy at lower dosage levels

Papular urticaria was not cleared by antihistaminics, although the pruritis was mitigated by relatively large doses In the early wheal stages the response was rather favorable in two cases, but when the papular stage intervened the lesions persisted unabated Low fat elimination diets and cool surroundings were most beneficial in spite of the atopic nature of the dermatitis

Angioneurotic edema was controlled by prolonged antihistaminic therapy One of the four children continued to have mild but infrequent recurrences One infant developed angioedema with cyclic vomiting, the former cleared, but the latter recurred One child showed facial edema following excessive ingestion of berries but remained clear on Diatrin therapy during periods of berry moderation None of the children responded to epinephrin, ephedrin, or histamine

Dermographia was readily controlled by antihistaminics within several hours of performing skin tests One child who had previously been stroked with a hair brush by Duke's method to enable intradermal testing, was now skin-tested after Pyribenzamine administration. Another child with dermographia accompanied by urticaria responded to Diatrin

Serum sickness was controlled remarkably well in an unusual case with spinal cord involvement A mentally retarded boy of seven developed urticaria, anaphylactic symptoms, and signs of meningeal irritation on the seventh day after injection of tetanus antitoxin in the country Epinephrin in oil and aminophyllin proved effective, but on the next day the muscles of the neck, arms, and legs became weak, speech was lost, and convulsions appeared Diatrin in 50 mg doses every four hours was initiated and continued for five days until all symptoms cleared

Penicillin dermatitis was cleared in two of the three severe cases by large antihistaminic dosage The itching of the generalized urticaria and angioedema abated in several days, but the swollen skin and painful joints persisted Neither of the allergic children showed any reaction to penicillium mold The third case failed to respond to any of the antihistaminics even in massive doses

Sulfadiazine dermatitis responded to moderate doses of antihistaminics One infant, two children, and one adolescent developed morbilliform urticarial lesions accompanied by systemic disorders without leukopenia The itching was alleviated in two days, but the erythema persisted for a week

Liver extract dermatitis was not relieved by antihistaminics at high dosages One allergic infant treated with parenteral liver extracts for the celiac syndrome developed urticaria and another angioedema Itching was mitigated, but the rash persisted for a fortnight

Poison ivy dermatitis failed to respond to antihistaminics The intense itching was slightly relieved, but the swelling, redness, and burning were not influenced nor was vesicle formation, despite local therapy

Barbiturate dermatitis cleared in an epileptic child on antihistaminics An excessive dosage of phenobarbital produced a morbilliform rash but Diatrin, 25 mg every four hours, alleviated the itching in two days, the edema in four days, and the erythema in a week

TABLE 6.—THERAPEUTIC EFFECTS OF ANTIHISTAMINICS IN ALLERGIC DERMATOSES

Dermatitis	Number of Cases	Itching	Edema	Erythema	Results
	Per Cent of Cases Benefited According to Symptoms				
Acute urticaria	16	85	80	85	Excellent
Papular urticaria	7	++	−	−	Poor
Angioneurotic edema	4	+++	++	+	Good
Dermographia	2	+	+	+	Good
Serum sickness	1	+++	+++	+++	Excellent
Penicillin dermatitis	8	+++	+	+	Good
Sulfadiazine dermatitis	18	+++	−	+	Good
Liver extract dermatitis	2	++	−	−	Poor
Poison ivy dermatitis	6	++	+	+	Poor
Barbiturate dermatitis	1	+++	++	+	Good
Infantile eczema	19	++	+	+	Poor
	Per Cent of Cases Benefited According to Antihistaminic				
Type of antihistaminic					
Benadryl	28	80	80	80	
Diatrin	28	85	80	80	
Pyribenzamine	28	85	80	80	

Infantile eczema (atopic dermatitis) was relieved of its pruritic component by antihistaminics, but the pleomorphic exudative lesions remained unaltered None of the various combinations of erythema, papulation, oozing, crusting, or wheal formation were affected in the slightest, whether antihistaminic therapy was initiated at the very onset or at any stage of the disease in nine patients ranging in age from three months to three years Some gave cutaneous wheal reactions of the immediate type to many allergens, especially foods and inhalants, but many of these showed no causal relation to the exudative lesions Antihistaminics were used to suppress itching, eliminate mechanical trauma from scratching, and provide partial sedation (Table 6)

Toxic Reactions

Acute toxicity of antihistaminics was observed in about one fourth of the patients, while chronic toxicity was observed in none Over 70 per cent of the children treated for acute allergic disorders responsive to antihistaminics showed no side-effects on individualized dosage When reactions occurred, they were manifest within four to eight hours after oral administration Most of the reactive cases developed drowsiness accompanied by nervous symptoms such as fatigability, weakness, irritability, dizziness, headache, or palpitation, digestive symptoms such as dry mouth, bad taste, nausea, epigastric distress, or diarrhea, and skin disorders such as pallor, dermatitis, pruritis, or cold extremities Blood examinations showed no anemia, leukopenia, or other hemopoietic changes

Diatrin was least toxic with fewer reactions clinically than Pyribenzamine or Benadryl Drowsiness was the most striking disturbance, usually accompanied by one or more nervous, digestive, or, more rarely, skin reactions Infants showed more digestive symptoms, children more nervous symptoms The effects were never of sufficient intensity to necessitate discontinuance of the drug Since the effective dosage of Diatrin was relatively smaller in comparison with Benadryl or Pyribenzamine, milder side-effects were observed at each age level When larger dosages become necessary in severe acute allergic disorders, Diatrin caused the least discomfort, Pyribenzamine more discomfort, and Benadryl the most Nevertheless, temporary reduction in dosage often alleviated side reactions until more effective amounts were tolerated in several days Indeed, tolerance was always individual, for some children obtained the greatest relief with the least side reaction from any of the antihistaminics, while others obtained the least relief with maximal disturbances from the same drug (Tables 7, 8)

TABLE 7.—SYMPTOMATIC INCIDENCE OF TOXIC REACTIONS

Symptoms	Benadryl	Diatrin	Pyribenzamine
	Per Cent of Cases		
Nervous disorders			
Drowsiness	30	18	22
Fatigability	25	10	10
Weakness	12	8	9
Irritability	10	5	10
Dizziness	15	2	5
Headache	5	1	3
Palpitation	5	2	3
Digestive disorders			
Dry mouth	6	1	2
Bad taste	5	0	2
Nausea	5	0	2
Epigastric distress	5	0	0
Diarrhea	1	0	0
Skin disorders			
Pallor	1	0	0
Dermatitis	1	1	0
Pruritis	1	0	0
Cold extremities	1	0	1

TABLE 8.—AGE INCIDENCE OF TOXIC REACTIONS

Group	Benadryl (Per Cent)	Diatrin (Per Cent)	Pyribenzamine (Per Cent)
Infants	24	16	20
Children	28	20	25
Adolescents	30	22	26

Summary

1 Three of the antihistaminics most intensively studied—Benadryl, Diatrin, and Pyribenzamine—were evaluated in allergic disorders of infants and children

2 Gastrointestinal allergy was not completely alleviated by antihistaminics without elimination of offending allergens The therapeutic effect was least in newborns and most in older children

3 Seasonal hay fever in mild form was controlled by antihistaminics alone and in severe form by a combination of antihistaminics and specific immunizing procedures

4 Vasomotor rhinitis was not alleviated by antihistaminics without clearance of the multiple allergens involved, although the recurrent type showed better response than the chronic type of the disease

5 Bronchial asthma was benefited in the primary hereditary type, occasionally in the secondary acquired type and not at all in residual lung injury type Each of the antihistaminics, especially Diatrin, alleviated the cough more effectively then the dyspnea or wheeze

6 Allergic dermatoses were relieved symptomatically of the acute edema or pruritis, especially in acute urticaria, angioneurotic edema, serum sickness, and drug dermatitis

7 Dosage of antihistaminics was evaluated in terms of body weight and severity of allergic offense The dosage of Diatrin per twenty-four hours was less than that of Benadryl and Pyribenzamine, i e , for infants 5 to 25 mg , for children 25 to 75 mg , for adolescents 75 to 200 mg per twenty-four hours

8 Toxic reactions observed were acute in about 25 per cent of the cases and chronic in none of the 309 children supervised Reactions were manifest within four to eight hours in the form of drowsiness accompanied by nervous and digestive but no hemopoietic disturbances

9 Diatrin was more effective in smaller doses and better tolerated than Pyribenzamine and the latter more than Benadryl at each age level

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ESSENTIALLY USELESS

The use of the right word at the right time is an accomplishment to which most medical writers and speakers aspire Oddly enough, familiar words seem to be more frequently misused than unfamiliar ones The speaker or writer is more inclined to resort to the dictionary for the meaning of the latter but often feels falsely confident with regard to the former

Certain words and phrases are vastly overworked by medical users and so indiscriminately are they employed that any special meaning they may originally have possessed has by now been lost. One such work is the modifier *essentially*, which has come to be considered indispensable in case presentation whether written or spoken At some time in the past, the word probably was used for a specific purpose, but at present it seems to be anything but indispensable One hears that a physical examination or a chest plate, or an abdominal exploration, or a battery of laboratory studies is *essentially* negative It is inserted because it is considered to protect the user from criticism In a case of coronary vascular sclerosis, for example, there may be no cardiac enlargement, murmurs, or irregularities of rhythm, the liver is not enlarged and there is no peripheral edema. For these reasons, one may consider that there are no significantly abnormal physical findings, but is afraid to say so If he does, a listener may leap to his feet and scold him for not noting that there is a *musca volitants* in the right eye and that quite obvious signs of epidermophytosis would have been found had he bothered to look between the toes The prepared defense against such onslaughts is to say that the physical examination was *essentially* negative or noncontributory

A moment's reflection should convince one that the insertion of the magic word protects him from nothing If irrelevant details are omitted in a case presentation thoroughly sensible precedent is merely being followed If truly significant details are omitted neither the word *essentially* nor any amount of linguistic adroitness can protect the speaker from criticism

Uncritical use of the language is not necessarily a sign of uncritical scientific thinking, but such use is not infrequently its bedfellow Insistence on precision, tiresome though it may seem, will eliminate a surprising amount of useless and taxing verbiage The word *essentially* is merely one example among many —*New England Journal of Medicine, July, 1949*

Case Reports

TOXIC NEPHROSIS FROM ORGANIC MERCURIAL DIURETICS

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IN VIEW of the present tendency to administer the organic mercurial diuretics daily, the following case with autopsy studies is reported to indicate the need for caution Furthermore, since toxic mercurial nephrosis is largely a pathologic diagnosis, its presence may be missed in many cases where autopsies are not obtained This may account for the few reports in the literature Our case, in addition, represents the first (?) reported death following intramuscular administration of a mercurial diuretic

Case Report

F F, a thirty-eight-year-old white married woman, was first seen by one of us (D G) in 1941, at which time she had well-established rheumatic mitral insufficiency and mitral stenosis with auricular fibrillation She gave a history of rheumatic fever at the age of five years with no known subsequent attacks Her father died of cerebral hemorrhage and her mother of rheumatic heart disease Five other siblings were living and well. She had had two normal deliveries, and both children were living and well

Later in 1941, she developed an arterial embolus in the fundus of the right eye with secondary optic atrophy and very marked diminution in vision In 1944, she was treated for pneumonia Hypertension was first noted in 1944 when she had a blood pressure of 160/105 Three months later the blood pressure was 170/115 Prior to this date, her blood pressure on repeated examination had been normal

Subsequently, in March, 1946, she received x-ray therapy for a fibroid uterus because of severe menorrhagia. Artificial menopause ensued

Treatment at first consisted of limitation of fluids, Digitoxin, and rest Beginning in January, 1947, she started her repeated admissions to the hospital because of progressive deterioration in her cardiac status From January 15 to January 28, 1947, she was hospitalized at Lebanon Hospital for pulmonary infarction and congestive failure with a markedly enlarged and tender liver Her blood pressure was 194/120 Several urinalyses showed normal specific gravity with occasional albuminuria. Electrocardiogram revealed auricular fibrillation, digitalis effects, and right deviation of the electrical axis. It was during this admission, on January 25, 1947, that she received 1 cc of Mercuhydrin intramuscularly for the first time

She was readmitted to Lebanon Hospital on April 6, 1947, and discharged on April 26 This time she had developed a severe pain in the right flank associated with temperature of 103 F , and a diagnosis of right renal infarction was made On the day following admission, she developed pain in the left flank and had a very tender, nonrigid abdomen Repeated urinalyses showed microscopic hematuria. Bilateral renal infarction was the clinical diagnosis During this admission her blood pressure was 180/90 On April 26, 1947, she received her second dose of 1 cc of Mercuhydrin intramuscularly

Her third hospital admission was to the Jewish Memorial Hospital which she entered on May 9, 1947, and left May 24 She was admitted because of very severe frontal and parietal headaches associated with nausea and vomiting Spinal tap revealed crystal clear fluid under such increased pressure that it flowed out over the top of the manometer The cerebrospinal fluid showed Pandy test negative, sugar 150, and 16 polymorphonuclear leukocytes Her blood pressure ranged from 160-180/100-115 The neurologic examination was normal The blood urea nitrogen varied between 17 and 21 mg per cent She was considered to have atypical hypertensive encephalopathy, although cerebral embolus could not be excluded Atypical digitalis intoxication was also considered as a possible contributing factor

Thereafter, she did poorly at home, showing persistent evidence of chronic congestive heart failure with much edema and cyanosis. Mercuhydrin was administered weekly without much effect Blood pressure on June 9, 1947, was 196/112 The electrocardiogram revealed right deviation of the electrical axis, digitalis effects, and auricular fibrillation It was especially noted that her hands, wrists, and fingers were swollen, and cyanosis was rather marked

Finally, because of progressive congestive heart failure, she was admitted to Lebanon Hospital on June 19, 1947, and stayed there until her discharge on September 9, 1947 At this time her blood pressure was normal, ranging from 124-140/90-98 She received intramuscular Mercuhydrin every other day, then daily, and finally several times each week Her temperature was level during most of her stay with irregular rises of unknown etiology (Mercuhydrin reaction?) Sulfadiazine and sulfathiazole appeared to accentuate the erythema and edema of the hands. Blood cultures were sterile, and the urea nitrogen was 11 mg per cent. X-ray of the chest disclosed small infiltrations at the right base Despite intensive treatment with low salt diet, Mercuhydrin, and digitalis, she exhibited marked congestive failure at complete bed rest when she left the hospital, still unimproved

At home, she was almost constantly dyspneic and orthopneic and she received three intramuscular injections of Mercuhydrin or Mercupurin weekly with a fair diuretic response Early in November, 1947, it became apparent that she was becoming extremely sensitive to the injections of either Mercupurin or Mercuhydrin, complaining of severe headache, facial neuralgia, and generalized aches and pains following each administration On No-

vember 18, 1947, the injection of 1 cc of Mercuhydrin by vein resulted in marked shocklike reaction Urinalysis at this time showed a 2 plus albuminuria with occasional casts However, because of the ominously increasing edema of the extremities and lungs, it was decided to continue mercurial injections intramuscularly Accordingly, on the afternoon of November 23, 1947, 1 cc of Mercuhydrin was injected into the muscles about the left hip She again developed signs of intolerance and complained in addition, of severe chest pains. Early the next morning, she was in profound peripheral circulatory collapse and died within a few hours

Autopsy showed 300 cc fluid in pleural and peritoneal cavities and calcified mitral valve with stenosis The coronary arteries were patent throughout There was a "nutmeg" liver The right kidney weighed 90 Gm., the left 160 Gm., and healed bilateral renal infarcts were present Microscopic sections showed acute enteritis of small intestine and congestion of the lungs and liver Extensive degenerative changes were found in the convoluted tubules of the kidneys The complete histologic report was as follows

"Sections of kidney show marked degeneration and early necrosis of convoluted tubules Almost all of the tubules are involved Their lumina contain amorphous precipitate The collective tubules are involved to a much lesser degree Some of the glomeruli show fibrosis, especially in one area of an old infarct where all of the glomeruli are fibrotic Some of the glomeruli show only thickening of Bowman's capsules The majority of the glomeruli, however, do not show any significant changes The stroma near the pelvis is infiltrated by polymorphonuclear leukocytes. The remainder of the stroma shows areas of fibrosis and infiltration by round cells The large and medium-sized arteries show arteriosclerotic changes Some of the arterioles show hyalinization The capillaries are markedly congested"

Comment

In three and one-half months, this rheumatic cardiac patient began to show intolerance to mercurials, after having received approximately 80 injections of Mercuhydrin and Mercupurin

Her death was probably due to an intramuscular injection of Mercuhydrin which resulted in a shocklike reaction At necropsy, no acute coronary closures were found, and marked degeneration of kidney tubules was demonstrated

The age of therapeutics which is upon us gave us wonderful tools to work with Organic mercury is one of these tools and its accomplishments are, by now, generally acknowledged Yet, like most drugs both new and old, it is not without danger The present enthusiasm may perhaps be overdone, and it is for this reason that this report is made

In a 1942 review of the toxic manifestations of mercurial diuretics, DeGraff and Nadler stated that "when a reaction occurs another preparation should be cautiously tried, changing the mode of administration with the same preparation does not seem to help"[1] Fox, Gold, and Leon reported a case unable to tolerate as little as 0 1 cc of Mercupurin intravenously, although more than 200 intravenous Salyrgan injections of 2 cc each were well tolerated[2] Apparently it is not mercury itself which is responsible It is the molecular structure which matters Fortunately, there are at least three good preparations (Salyrgan, Mercupurin, and Mercuhydrin) which may be substituted for each other when sensitivity develops

Not infrequently, none of these preparations is tolerated, and if pursued, shocklike reactions, temperature, and local irritating phenomena, including erythema and urticaria, may appear This has been observed by us several times

Reports of death following intramuscular administration of a mercurial diuretic have not often been described in the literature, although many fatalities have been reported following intravenous injections[3,4] Toxic nephrosis occurs, and death has been reported by Waife and Pratt following prolonged treatment of cardiac failure with intravenous and later intramuscular Mercupurin.[5] Mercurial nephrosis appears to depend upon dosage and sensitivity of the patient, rather than on the route of administration Higgins observed a patient who developed chills, fever, dyspnea, and collapse with recovery following a 1 cc intramuscular injection of Mercupurin[6]

These reaction episodes probably represent an allergic manifestation to specific chemical compounds containing mercury Why some patients develop intolerance and even nephrosis and most others escape is not clear, but it is important to know that these reactions do occur and may appear quite suddenly in any patient who has not previously given any evidence of sensitivity Of the signs of intolerance, moderate rise of temperature with nausea and perhaps some abdominal pain is not a rare occurrence This was observed in a recent case This case had enough abdominal localization of pain in the right side and dome tenderness that hospitalization was necessary to rule out a surgical abdomen Leukocytosis, when it appears, tends to complicate the diagnostic problems even further All these, however, may be due to acquired sensitivity to any or all organic mercurial preparations

Summary

A case of tubular nephrosis, with autopsy findings, resulting from intramuscular administration of mercurial diuretics is reported Attention is drawn to the fact that frequent administration of mercurial diuretics must be done with great care and selection of cases, since toxic tubular nephrosis may be produced and may arise unexpectedly in the course of treatment

The authors express their thanks to Dr V Kogan associate pathologist at Lebanon Hospital for the necropsy data herein reported.

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GANGRENE OF ENTIRE LARGE BOWEL TO DISTAL SIGMOID FOLLOWING VOLVULUS OF HEPATIC FLEXURE

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THE purpose of this paper is to add to the literature an unusual case of gangrene of the large bowel that extended from the cecum to within 8 inches of the rectosigmoid and in which the initiating factor was a postoperative band about which a torsion of the hepatic and right half of the transverse colon had occurred The case to be reported represents the third occasion in which the entire large bowel to the lower sigmoid has been resected as an acute emergency procedure, as evidenced by a careful search of the literature The unusual lesions, the difficulties in postoperative care, and the complete recovery seem worthy of report

Case Report

A. P, a forty-six-year-old white woman housework, was admitted to Kings County Hospital, County Division, October 28, 1947 Her chief complaint was severe abdominal pain of eight hours duration. She had been well until forty-eight hours before admission when she experienced moderately severe pain and tenderness in the left groin and upper thigh. There was no swelling of the thigh or leg, and she was able to continue with her work On the day of admission she was suddenly seized with severe abdominal pain, colicky in character, and accompanied by nausea and vomiting She had been constipated since onset of abdominal pain. Her past history disclosed that her gallbladder and appendix had been removed in 1936 She had suffered from bronchial asthma for more than ten years Her menstrual history was noncontributory, and she was menstruating on admission.

Examination revealed a well-developed, well-nourished, moderately obese, white female in acute distress, appearing agitated, apprehensive, and uncooperative Temperature was 98 6 F per rectum, respirations 20, blood pressure 100/65, pulse 120, small and regular The heart was essentially negative Respirations were labored Numerous sibilant and sonorous rales were heard throughout both lung fields The abdomen showed a healed right rectus surgical scar and was moderately distended, rigid throughout, and acutely tender, particularly in the upper quadrants Rectal examination was negative. Both lower extremities showed a cold but not discolored skin with slight tenderness on deep pressure over the inguinal regions Homans sign was bilaterally negative All arterial pulsations were normal

Laboratory Data.—The white blood count was 29,000 with 85 per cent polymorphonuclears and 15 per cent lymphocytes The hemoglobin was 18 Gm., plasma protein 4 5 Gm., hematocrit 53 The urine showed a 3 plus acetone The blood sugar was 120 mg per cent Roentgen survey of the abdomen showed gas in the large colon which appeared to end abruptly at the splenic flexure

A diagnosis of "acute surgical abdomen" was made, and the possibility of mesenteric thrombosis with gangrene of the bowel was considered. The patient was immediately started on penicillin, and blood was typed and cross matched Plasma was given while whole blood was being prepared, and a Levine tube was inserted and suction begun.

Operative Procedure —A spinal anesthetic, consisting of procaine 120 mg and pontocain 10 mg, was administered. The abdomen was entered through a right pararectus incision extending halfway above and below the umbilicus. This was later augmented by a subumbilical transverse incision In the abdomen, about 1,000 cc of free, blood-tinged fluid having a faint fecal odor was found. The first structure encountered was a dilated loop of hepatic flexure and proximal transverse colon, blue-black in color and rotated almost 270 degrees in a clockwise direction A dense fibrous band was found holding the bowel in this position. The band was severed and the bowel rotated to its normal position It was noted that the mesentery was markedly edematous and measured about 1½ cm. in thickness As the exploration continued, it was found that the entire large colon, including the sigmoid loop and a section of pelvic sigmoid to a point about 8 inches above the peritoneal reflection, was involved in a patchy and segmental gangrene It was impossible to resect any intervening segment of bowel. It was necessary to resect the entire diseased colon together with 8 inches of terminal ileum (Fig 1) During this procedure the cut edges of the mesentery oozed large quantities of edema fluid, and little free bleeding was seen from the cut blood vessels About 8 inches of large bowel above the peritoneal reflection remained to be utilized in the formation of a double-barreled ileocolostomy The limbs were sutured together to form a 3-inch spur, and with clamps in place this



FIG 1 Photograph of operative specimen. The site of torsion at the hepatic flexure is readily seen Gangrene of the splenic flexure is patchy, the process ending abruptly about 8 inches above the peritoneal reflexion



FIG 2 Roentgenogram showing functioning ileocolostomy (barium enema six months after resection of colon)

was brought out at the medial extremity of the transverse wound. No attempt to reperitonealize raw surfaces could be made.

Pathology —The specimen consisted of the entire large colon from cecum to rectosigmoid, including 8 inches of terminal ileum. It was blue-black in color for most of its extent, although toward the splenic flexure patches of congested but apparently viable bowel could be seen alternating with patches of frank gangrene Thrombosed blood vessels could be seen grossly No perforations in the large bowel were found Microscopically, the bowel wall was infiltrated with many polymorphonuclear cells and some lymphocytes, edema of the muscularis and mucosa was seen There was thrombosis of the blood vessels and necrosis of the tissues

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tum."[5] At operation we were unable to verify the existence of such a variation, but it would seem reasonable, in view of the incongruities encountered, to postulate that an abnormal blood supply was present

Summary

1 An unusual case of volvulus of the hepatic flexure and proximal transverse colon with gangrene of the large bowel from cecum to rectosigmoid is presented.

2 The complete recovery of the patient, following resection of the entire colon to the rectosigmoid, is reported

3 It is postulated that the lesions in the descending and sigmoid colons may have resulted from an anomalous blood supply to these parts

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POSTPARTUM HEMORRHAGE NECESSITATING IMMEDIATE HYSTERECTOMY

JOHN J KEENAN, M D , and CHARLES R LEWIS, M D , Troy, New York

(From the Gynecological and Obstetrical Departments of St. Mary's Hospital)

IN New York State the decrease in maternal mortality during the last ten years has kept pace with the generally lower rate throughout the country While deaths from infection, toxemia, and hemorrhage continue to head the list, the sharp decline in maternal deaths from infection has been most dramatic Deaths due to hemorrhage from 1940 through 1944 in this State showed no significant decrease, although the last three years have indicated a lowering rate

In commenting briefly on the decline, beginning in 1941, in maternal deaths due to infection, the temptation exists to credit the expanding use of the sulfonamide drugs, together with penicillin, as outstanding in achieving this reduction Likewise, the failure of toxemia and hemorrhage death rates to show significant decrease during the early forties and then to drop later may indicate the lack of adequate medical care for the civilian population during the war years Such interpretations are speculative

Uterine hemorrhage in the immediate postpartum period demands promptly applied control measures The usual means employed include uterine massage, oxytocics, blood replacement, and intrauterine packing The consensus of opinion seems to be that the intravenous injection of active ergot preparations has materially lowered the need for postpartum packing The role of the newer absorbable oxidized gauze for intrauterine packing has not, as yet, been thoroughly assessed, although preliminary reports indicate its safety and effectiveness [1]

Packing of the postpartum uterus to control hemorrhage is admittedly a controversial subject The procedure is endorsed by Titus, Mussey, Stander, Greenhill, and others On the other hand, Cosgrove states in a recent discussion "We did not, in fact, use it (i e , packing) in a single case, but we lost no cases in that time (i e , 1946 with 8,400 deliveries) from postpartum hemorrhage "[2]

Day *et al* , reporting in 1948 on more than 12,000 deliveries over a twenty-eight-year span, stated that the measures as above outlined failed to control postpartum uterine bleeding in six instances [3] During this period intrauterine packing was used 267 times, giving an incidence of 2 3 per cent Following repacking of these six patients, the bleeding was controlled in three, leaving three in whom hysterectomy was performed This gives an incidence in the authors' experience of 1 4,000 deliveries in which repacking failed to control postpartum hemorrhage

Case Report

A forty-three-year-old gravida III, Para 5, was admitted to the St Mary's Hospital, September 18, 1948, in active labor Her membranes had ruptured at home The past history, including medical, surgical, and gynecologic reviews, was noncontributory, she had had three normal spontaneous deliveries, the last occurring in 1935 In 1944, she is said to have miscarried at about the fifth month of gestation but was not hospitalized Her present history began when first seen on April 28, 1948, at which time a diagnosis of intrauterine pregnancy was made Her last menstrual period was February 10, expected date of confinement was November 17 Since the size of the uterus was estimated to be that of approximately six months gestation, x-ray studies were made These were reported negative for fetal skeleton The Friedman test was positive, but no fetal heart or outlines could be elicited. Following a month's period of uneventful observation, x-ray indicated a normal single fetal skeleton estimated to be about three and one-half months The complication was believed to be either leiomyomata or hydramnios The pregnancy proceeded without otherwise significant deviation until she entered the hospital in active labor

A living female child, weighing 5 pounds, 4 ounces, and measuring 45 cm. was delivered spontaneously per vagina (vertex presentation) The infant's subsequent course was without incident, with her receiving the usual care accorded premature infants The patient was given the routine oxytocics, a pituitary preparation intramuscularly and an ergot preparation intravenously The placenta did not deliver spontaneously after thirty minutes, and with the apex of the uterus remaining above the umbilicus, intrauterine exploration and manual separation with delivery of the placenta was carried out.



FIG 2 Roentgenogram showing functioning ileocolostomy (barium enema six months after resection of colon)

was brought out at the medial extremity of the transverse wound No attempt to reperitonealize raw surfaces could be made

Pathology —The specimen consisted of the entire large colon from cecum to rectosigmoid, including 8 inches of terminal ileum. It was blue-black in color for most of its extent, although toward the splenic flexure patches of congested but apparently viable bowel could be seen alternating with patches of frank gangrene. Thrombosed blood vessels could be seen grossly No perforations in the large bowel were found Microscopically, the bowel wall was infiltrated with many polymorphonuclear cells and some lymphocytes, edema of the muscularis and mucosa was seen There was thrombosis of the blood vessels and necrosis of the tissues

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On November 30, 1947, thirty-three days after her first operative procedure, an extraperitoneal closure of the colostomy was performed Postoperatively, the patient's condition was satisfactory except for a persistent fistula which appeared one week later On January 8, 1948, the colostomy was freed from its peritoneal attachment and the fistula with its attachment to the bowel excised. The ensuing opening was closed and the bowel dropped into the free abdominal cavity The wound was closed layer by layer The patient was discharged February 17, 1948, some four months after the onset of her illness, with the abdominal wound completely healed and discharging four semi-solid bowel movements a day

Follow-up studies in the outpatient department disclosed that the patient had gained 30 pounds in weight and returned to her usual occupation as a houseworker Her gastrointestinal series, taken March 1, 1948, showed a well-functioning ileocolostomy (Fig 2) When last seen in December, 1948, she had no complaint of diarrhea or symptoms referable to her gastrointestinal tract.

Comment

A careful search of the literature for the past sixty years has been made Only two recorded incidents of operative procedures for gangrene of the large bowel extending from cecum to rectosigmoid have been found [1,2] Gangrene of small segments of the large bowel resulting from adhesive bands, hernial constriction, and volvulus is not uncommon Gangrene of large segments is usually associated with primary arterial pathology A few isolated cases of thrombosis of colic vessels, with resulting death of large areas of the left or right colon, have been reported by Bell-Allen [3]

We have been unable to explain satisfactorily the extensive pathology that was present in the descending and sigmoid colons on the basis of a volvulus of the hepatic flexure and proximal transverse colons. The right and middle colic arteries arising from the superior mesenteric were directly involved in a mechanical compression A poor marginal artery, formed by the anastomosis of the left branch of the middle colic with the ascending component of the left colic, would account for the patchy gangrene of the splenic flexure On normal anatomic grounds, however, we should expect to have an adequate blood supply, distal to the splenic flexure, through the inferior mesenteric artery

Many anomalies in the blood supply to the intestines have been noted It is not within the scope of this paper to describe the many variations that may occur Some of these have been illustrated recently by Robillard and Shapiro [4] It has also been observed that the superior mesenteric artery may supply the entire "alimentary canal from the second part of the duodenum to the end of the rec

SENSITIVITY TO FURACIN

ISAAC H RICHTER, M D , and ANGELO C MANOCCHIO, M D , Brooklyn, New York

(From the Peripheral Vascular Clinic, Department of Medicine, Coney Island Hospital)

DURING the past few years Furacin Soluble Dressing has been used extensively for varicose ulcers with variable results The ointment was used in both gram-positive and gram-negative bacterial infections Several reports have appeared in medical literature regarding the irritating and sensitizing properties of Furacin

In 1947, Downing, Hanson, and Lamb reported that eight out of 212 patients developed sensitization to prolonged use of Furacin [1] They emphasized the value of its use in superficial dermatoses where results can be obtained in a shorter time, thus lessening the number of cases that develop sensitization Morin reported one case of sensitization to Furacin which resulted in the formation of a local erythema and vesiculation, generalized urticaria, and pruritus associated with headache and nausea [2]

In the vascular clinic at the Coney Island Hospital and in private practice we encountered three cases of sensitization to Furacin in a series of 30 cases of varicose ulcer

Case Reports

Case 1 —M E , a fifty-three-year-old white woman, gave a history of varicose veins for several years There was no history of allergy Several months ago, she sustained an abrasion to her right leg where an infected ulcer developed Furacin Dressing was applied locally for about four weeks at the end of which time she developed a macular, papular rash, most marked around the ulcer, which subsequently spread over the entire body This was associated with itching The rash disappeared after continuous use of antihistaminic drugs for four weeks The ulcer has not healed

Case 2 —M M , fifty-five-year-old white woman, gave no history of allergy, but her son was suffering from recurrent attacks of angioneurotic edema and urticaria She had moderate-sized varicosities in both legs for about eighteen years Five months ago, she developed an ulcer on the right leg, $1^1/_2$ by $^1/_2$ inches in diameter Furacin was prescribed for local application, and after one week she developed a marked generalized dermatitis which was followed by exfoliation of skin This rash subsided after three weeks of continuous use of antihistaminic drugs and local applications of calamine lotion The local infection of the ulcer subsided, but epithelization did not take place

Case 3 —A. A., a forty-three-year-old white woman with a history of hay fever and varicose veins for many years, developed an ulcer on her left leg several months prior to our first observation Local application of Furacin Dressing was started on October 21, 1948, and was used continuously until November 18, when she developed an eruption The rash covered the face, chest, lower abdomen, dorsal surface of both arms, and medial surface of both thighs and legs and was more marked around the ulcer The rash consisted of macules and papules with marked edema followed by scaling of skin This eruption was associated with marked itching One day after appearance of the skin lesion, adrenalin injection brought considerable relief and improvement, but gradually the condition became worse until antihistaminic drugs were used Patient was last seen on December 16, at which time the rash was still present, but to a lesser degree, the edema had subsided, and scaling of skin was moderate The ulcer was healed, being covered with a crust

Discussion

The above three patients with varicose ulcers developed a generalized eruption due to local use of Furacin for a period of one to four weeks One of these patients had hay fever, and two gave no previous history of allergy The type of reaction presented here belongs to the delayed, induced type of contact dermatitis Skin testing by patch method is usually negative, and hence we cannot foretell who may be sensitized to the material used The basic causative factor of varicose ulcer is not infection but rather venous stasis Therefore, there seems to be no rational basis for using an ointment for a period of several weeks in the hope that epithelization will take place Treatment should be directed toward removing the cause

Conclusions

1 The use of Furacin Dressing in the treatment of infected varicose ulcer may produce a contact dermatitis with systemic manifestations

2 The allergic symptoms respond slowly to the use of antihistaminic drugs

3 Therapy of varicose ulcer should be directed to removal of the underlying cause

References

1 Downing J G Hanson M C and Lamb M J A M A 133 299 (1947)
2 Morin L. J *ibid* 133 963 (1947)

Nodularity of the uterus was evident, and, together with the vagina, it was packed with 15 yards of plain gauze At no time did the patient exhibit signs of shock, and repeated pulse and blood pressure determinations were within normal range At the end of four hours, bleeding through the packing was present The patient was brought to the operating room, repacked, again using 15 yards, given 1,000 cc of freshly drawn citrated blood, and returned to her room About four hours after repacking, blood was seeping through the dressing, and abdominal exploration was decided upon During this operative procedure, consisting of supracervical hysterectomy and bilateral salpingo-oöphorectomy, an additional 1,000 cc of freshly drawn blood was given Her postoperative course was without event, dangling in twenty-four hours, out of bed in forty-eight hours, and home on the tenth day The wound healed by primary union

Pathologic Report—Gross examination The specimen consists of a greatly enlarged uterus amputated through the cervix It measures about 22 cm in greatest dimension and weighs 3,500 Gm. (the freshly delivered uterus weighs about 1,000 Gm.) It has been opened The cavity is lined by a rough, hemorrhagic membrane The myometrium is greatly thickened, measuring 8 cm in thickness It consists of a nodular type of tissue with indistinct nodules, varying from less than 1 cm. up to 4 cm in diameter The serosa is coarsely nodular due to the underlying tissue The tubes and ovaries are attached They are not grossly remarkable Separately received is a placenta 18 cm in diameter with membranes and cord attached The placental lobules vary in thickness from about 1 5 to 3 cm The cord is not grossly remarkable

Microscopic description Sections of the uterus show interlacing bundles of mature smooth muscle cells and collagenous fibrous tissue Some areas exhibit hyaline necrosis Sections through the circumscribed nodules show interlacing smooth muscle and fibrous tissue characteristic of myoma Van Gieson-stained sections show much collagen intermingled with smooth muscle in the wall of the uterus In places there are large foci of hyalinized dense collagen It is estimated that about 25 to 35 per cent of the uterine wall is collagen, the remainder being largely smooth muscle The uterus is lined by decidual tissue which extends irregularly into the underlying myometrium. The ovaries and tubes are not remarkable There is no microscopic evidence of malignancy The extremely large size of this uterus is accounted for by the large amount of collagen, evidence of previous subinvolution, and multiple leiomyomata

Diagnosis Chronic subinvolution and multiple leiomyomata of the corpus uteri

Comment

In a recent discussion of the surgical complications of pregnancy, Waters states "It is recognized that the incidence of abortion, premature labor, tumor necrosis, adherent and retained placenta, and postpartum hemorrhage is higher in patients with fibroids"[3] He further states that he prefers vaginal delivery and delayed operation if possible It is noted that the patient reported here exhibited, during this pregnancy, all of the above features except the first

Summary

The maternal mortality rate in New York State has declined appreciably during the past ten years. This decline prevails in deaths due to hemorrhage which in 1947 was 1 6 per 10,000 total births, falling from 7 5 in 1938

Conservative methods used in controlling postpartum hemorrhage—uterine massage, intravenous injection of active ergot preparations, blood replacement, and intrauterine tamponade—occasionally fail Repacking in such instances is indicated The failure of these measures to control the bleeding necessitates a more radical approach, including, as shown in the case presented, hysterectomy

The authors wish to express their appreciation to Dr John Clemmer pathologist for his generous cooperation during the preparation of this article.

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"DR. JONES" SAYS—

We lay a lot of things to automobiles—contributing to juvenile delinquency, crime, and what not, to say nothing of accidents But one thing they've done for us, besides getting us around—they've reduced the number of flies we've had to contend with. They've done it, of course, by replacing horses Piles of horse manure were the principal breeding places of the common house fly And you folks that're under forty, you've seen a lot more automobiles than us old timers had at your age, but you've never really seen flies—not the way we had 'em in the good old days of horse-drawn transportation

In 1916, when we had our big epidemic of polio, they had a meeting of health people in New York City to discuss plans The city health commissioner said one of their serious problems, there, was disposing of stable manure He was thinking, of course, about the flies—a problem in most cities

Whether flies spread polio or not—well, they've discovered since then that the virus is in excretions of patients, and they've found flies carrying it But, apparently, they've never traced any actual cases to flies, and the experts don't seem to think they're an important factor But that doesn't relieve anything as dirty as a fly from being a suspicious character

Spreading typhoid and other intestinal infections—the way they travel back and forth between filth, folks, and food—years ago they laid a lot of the cases and outbreaks to flies With more knowledge and better investigations they've found those diseases are spread mainly through other channels But it's often next to impossible to prove where isolated cases came from. Some of 'em—it could be flies At any rate, in spite of automobiles, DDT and all the rest, there's still too many of 'em. Their habits and manners are bad and, allowing 'em the benefit of every doubt, like some other innocent looking critters, at the best they're bad company—*Paul B Brooks, M D, August 15, 1949*

SENSITIVITY TO FURACIN

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DEPARTMENT OF MEDICAL CARE INSURANCE

CONDUCTED BY GEORGE P FARRELL, DIRECTOR

Medical Care Plans Record 1,886,774 Members at June 30, 1949

THE voluntary nonprofit medical care insurance plans in New York State (approved by the Medical Society of the State of New York) experienced a record increase of 347,485 members for the six months ending June 30, 1949, as compared with 284,299 for the corresponding period a year ago

Benefits to members were $4,297,529, as compared with $2,694,642 for the same period a year ago, an increase of $1 602,887, or 37 per cent.

The following tables reflect detailed progress of each plan as well as over-all totals (see Tables 1–5)

TABLE 1 —MEMBERSHIP PROGRESS—QUARTER ENDING JUNE 30 1949

By Types of Contracts	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only							
June 30, 1949	987 992	172 240	119 433	3 805	84 024		1 367 494
March 31 1949	913 867	154 168	115 846	3 534	77 021		1,264,436
Increase	74 125	18,072	3 587	271	7 003		103 058
Surgical In Hospital Medical							
June 30, 1949	385 696	19 619				57 995	443,310
March 31 1949	328 514	20 032				54,957	403 503
Increase	37 182	−413				3 038	39 807
Surgical-Medical (Home, Office and Hospital)							
June 30 1949	57 209			18 716			75 925
March 31 1949	52 158			17 477			69 635
Increase	5 051			1 239			6 290
Medical Expense Fund							
June 30, 1949	15						11
March 31 1949	111						115
Decrease	−96						−96
Grand Totals							
June 30 1949	1 410 912	191 859	119 433	22 521	84 024	57 995	1 886 744
March 31 1949	1,294 650	174 200	115 846	21 011	77 021	54 957	1 737 685
Increase	116 262	17 659	3 587	1 510	7 003	3 038	149 059

NOTE 53 984 Members in the Utica Plan were covered by Medical Call Riders as of June 30 1949 an increase of 2 877 during the quarter

TABLE 2 —COMPARATIVE STATEMENT OF MEMBERSHIP INCREASE FOR SIX MONTHS ENDING JUNE 30 1948 AND 1949

By Types of Contracts	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only							
June 30 1949	176 934	33 254	9 470	432	15 371		235 461
June 30 1948	142 536*	19 241	10 856	1,223	11 013		184 869
Surgical In Hospital Medical							
June 30 1949	91 982	−1,266				6 296	97 012
June 30 1948	68,106	−1 491				15 827	82 442
Surgical Medical (Home, Office and Hospital)							
June 30 1949	13 183			1 983			15 166
June 30 1948	14 527			2 648			17 175
Medical Expense Fund							
June 30 1949	−154						−154
June 30 1948	−187						−187
Grand Totals							
June 30 1949	281 945	31 988	9 470	2 415	15 371	6,296	347 485
June 30 1948	224 982	17 750	10,856	3 871	11 013	15 827	284 299

* 4,736 In Hospital Surgical members transferred to Surgical Contracts and are included in the increase of 142,536

TABLE 3.—COMPARATIVE STATEMENT OF INCURRED CLAIM AND ADMINISTRATIVE EXPENSE RATIOS TO EARNED PREMIUM INCOME FOR SIX MONTHS ENDING JUNE 30 1948 AND 1949

	New York	Buffalo	Utica	Rochester	Albany	Syracuse	Totals
Earned Premium Income							
June 30 1949	$4 606 806	$613 132	$469 618	$255 677	$238 522	$116 088	$6,299 841
June 30 1948	2 940,278	462 016	385 267	167,151	132 981	91 081	4,178 774
Claim Expense							
June 30 1949	$3 249 136	$486 768	$372 623	$183 936	$196 773	$ 97 196	$4 586 432
June 30 1948	1 937,290	321 105	306 634	120 947	103,525	68 904	2 858,405
Administrative Expense							
June 30 1949	$ 940 153	$ 54 681	$ 64 378	$ 36 567	$ 22 142	$ 14,623	$1 132 744
June 30 1948	637 119	51,230	56 611	24,349	15,385	11 928	796 622
Claim Expense Ratio to Earned Premium Income							
June 30 1949	70 53	79 39	79 34	71 50	82 50	83 73	72 80
June 30, 1948	65 89	69 50	79 60	73 20	77 80	73 65	68 40
Administrative Expense Ratio to Earned Premium Income							
June 30 1949	20 41	8 95	13 70	14 20	9 28	12 60	17 97
June 30 1948	21 67	11 09	14 70	14 50	11 60	13 10	19 06

TABLE 4.—CLAIM DATA (PAID BASIS)—YEAR TO JUNE 30 1949
(By Types of Contracts)

Plan Location	Number of Claims	Amount	Ratio to Earned Premium	Average Cost per Claim	Claim Incidence per 1 000 Participants per Annum	Average Exposure Participants
New York						
Surgical Expense Indemnity	35 190	$2 079 996	74 35	$59 10	73 9	951 774
Surgical, In-Hospital Medical	14 184	748 284	54 57	52 75	81 8	346,542
General Medical	21 296	259 916	60 66	12 20	780 6	54,562
Total	70 670	$3 088 196	67 18	$43 41		
Buffalo						
Surgical	12 441	$ 367 526	75 21	$29 54	161 3	154 168
Surgical, In-Hospital Medical	3 659	83 323	66 92	22 77	361 3	20 254
Total	16 100	$ 450 849	73 53	$28 00		
Utica						
Surgical and Special Benefits	12 303	$ 316 376	80 28	$25 71	213 8	115 081
Medical Call Rider	1,285	25 222	33 37	19 62	50 5	50 866
Total	13 588	$ 341,598	72 74	$25 14		
Syracuse						
Surgical	313	$ 9 981	97 88	$31 88	175 6	3 564
Surgical and Medical	4,353	82 603	94 94	18 97	493 4	17 642
Total	4,666	$ 92,584	95 25	$19 84		
Rochester						
Surgical	4 347	$ 153 054	59 86	$35 20	106 2	81 843
Albany						
Surgical In-Hospital Medical	4 047	$ 171,248	71 79	$42 31	147 4	54,884
Grand Total	113 413	$4,297 529	68 53	$37 89		

TABLE 5.—COMPARATIVE STATEMENT OF CLAIM INCIDENCE (FREQUENCY WITH WHICH CLAIMS OCCUR)—SIX MONTHS ENDING JUNE 30 1948 AND 1949

Plan Location and Types of Contracts	1948 Claim Incidence per 1 000 Participants per Annum	1948 Average Exposure Participants	1949 Claim Incidence per 1 000 Participants per Annum	1949 Average Exposure Participants
New York				
Surgical Expense Indemnity	65 5	677 291	73 9	951 774
Surgical, In Hospital Medical	63 2	173 176	81 8	346,542
General Medical	611 5	37,887	780 6	54,562
Buffalo				
Surgical	122 4	110 886	161 3	154,168
Surgical, In Hospital Medical	355 8	22 238	361 3	20 254
Utica				
Surgical and Special Benefits (including Medical Call Riders)	231 6	94 659	236 1	115 081
Syracuse				
Surgical	150 9	2,756	175 6	3 564
Surgical and Medical	595 4	14,500	493 4	17 642
Rochester				
Surgical	81 7	52 020	106 2	81,843
Albany				
Surgical, In-Hospital Medical	133 0	34,311	147 4	54,884

FORTY-THIRD ANNUAL MEETINGS
of the
DISTRICT BRANCHES
of the
MEDICAL SOCIETY OF THE STATE OF NEW YORK

PROGRAM

SIXTH DISTRICT BRANCH

Wednesday, October 19, 1949
Cortland Country Club
Cortland, New York

Afternoon Session

2 30 P M.—"Dermatological Aspects of Interest to the General Practitioner"
David Bloom, M D , New York City, assistant clinical professor of dermatology and syphilology, New York University Post-Graduate Medical School

3 30 P M —"Thoracic Diseases 1 Differential Diagnosis, 2 More Common Uses of Thoracic Surgery, 3 The Use of Antibiotics in the Treatment of Chronic Pulmonary Pathological Conditions"
N Stanley Lincoln, M D , F A C P , director, Hermann M Biggs Memorial Hospital, Ithaca
Frederick Beck, M D , F A C P , assistant director, Hermann M Biggs Memorial Hospital, Ithaca
Richmond Douglass, M D , F A C S , Hermann M Biggs Memorial Hospital, Ithaca

4 30 P M.—"Forum on Public Relations"
Mr Dwight Anderson, executive secretary, Medical Society of the State of New York
C Stewart Wallace, M D , Ithaca, president, Tompkins County Medical Society
Bruce D Lott, M D , Binghamton, chairman, Public Relations Committee, Broome County Medical Society

5 15 P M —"Nonunion of Fractures"
Reginald Charles Farrow, M D , Ithaca, Diplomate, American Board of Orthopedic Surgery

Business Meeting—Election of Officers

Evening Session

7 00 P M.—Dinner—informal
Introduction of Officers of the Medical Society of the State of New York
Address by the president-elect, Carl ton E Wertz, M D , Buffalo
Remarks by Mrs William J Lavelle, president, Woman's Auxiliary to the Medical Society of the State of New York

8 30 P M —"Diagnosis of Tumors of the Gastro-intestinal Tract"
William A Cooper, M D , F A C A , New York Hospital

Officers—Sixth District Branch

President	Charles L Pope, M D , Binghamton
First Vice-President	Norman C Lyster, M D , Norwich
Second Vice-President	Elton R Dickson, M D , Binghamton
Secretary	Paul F Willwerth, M D , Montour Falls
Treasurer	Marshall Latcher, M D , Oneonta

Presidents of Component County Societies

Broome	Leonard J Flanagan, M D , Binghamton
Chemung	M Frederick Butler, M D , Elmira
Chenango	Newton Brachin, M D , Greene
Cortland	Robert H Kerr, M D , Cortland
Delaware	G M Palen, M D , Margaretville
Otsego	John W Latcher, M D , Oneonta
Schuyler	Francis C Ward, M D , Odessa
Tioga	Arthur J Capron, M D , Owego
Tompkins	C Stewart Wallace, M D , Ithaca

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REFERENCES

(1) Rosenblum G and Melnikoff E. Preservation of the Threatened Pregnancy with Particular Reference to the Use of Diethylstilbestrol West Jr Surg Obs and Gyn 55 597 603 Nov 1947

(2) Silbernagel W M and Burt O P Ohio State Med Jr 39 430 May 1943

(3) Karnaky K J Estrogenic Tolerance in Pregnant Women Amer Jr Obs and Gyn 53 312 316 1947

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NECROLOGY

Max Berkovsky, M.D, of the Bronx, died suddenly on September 3 while at his summer home on City Island, at the age of forty-eight. Dr Berkovsky received his medical degree from the New York Homeopathic Medical College and Flower Hospital in 1926 During World War II he served as a captain in the U S Army Medical Corps, from 1942 to 1945, seeing action in France Dr Berkovsky was associate dermatologist at the Metropolitan and Bronx Hospitals and was formerly senior clinical assistant in dermatology at the Mount Sinai Hospital outpatient department He was a member of the American Academy of Dermatology and Syphilology, the Bronx Dermatological Society, of which he was vice-president, the Bronx County and New York State Medical Societies, and the American Medical Association

Samuel Einterz, M.D, of the Bronx, died suddenly on August 25 in the Peekskill Hospital at the age of sixty Dr Einterz was graduated in 1913 from the University and Bellevue Hospital Medical College He was a member of the Bronx County and New York State Medical Societies and the American Medical Association

Solomon Hermann, M.D, of Brooklyn, died on September 6 at his summer home in Neponsit after a long illness, at the age of seventy-seven Born in Russia, Dr Hermann received his medical degree from the University of Berlin in 1898 He came to the United States and in 1905 began his practice in Brooklyn, retiring thirty years later in 1935 In 1920 Dr Hermann was an organizer and founder of the Israel Zion Hospital of Brooklyn, now the Israel Zion division of the Maimonides Hospital, and was also a founder of the New Utrecht Medical Society of Brooklyn

Arthur Fenwick Holding, M.D, of Albany, died on August 27 at his home at the age of seventy-two Dr Holding was graduated from the Albany Medical College in 1901 and interned the following year at Albany Hospital He also did postgraduate work at Johns Hopkins Medical School, Cornell University Medical College, the University of Indiana, and the University of Vienna. From 1912 to 1916 Dr Holding was director of the x-ray laboratory at Memorial Hospital, New York City, and during World War I he served overseas with the U S Army Medical Corps as a brain surgeon at a base hospital in France In 1922 he returned to Albany and began his practice limited to eye, ear, nose, and throat

Dr Holding several years ago was instrumental in organizing the Physicians and Nurses Exchange, which provided twenty-four-hour-service for persons in need of emergency medical treatment He was formerly director of the tumor clinic at Memorial Hospital, Albany, and was consulting surgeon for eye, ear, nose, and throat there A Diplomate of the American Board of Radiology, Dr Holding was a member of the New York Academy of Medicine, the American Roentgenologists Association, the American Radium Association, the Albany County and New York State Medical Societies, and the American Medical Association

Artur Meyer, M.D., of New York City, died on August 28 at the age of sixty-seven Dr Meyer received his medical degree from the University of Bonn in Strassburg, Germany, in 1907 He was a member of the New York County and State Medical Societies and the American Medical Association

Horace Clifford Montgomery, M D, of Watertown, died suddenly on September 3 from a heart attack at his home, at the age of sixty-two Dr Montgomery was graduated from Albany Medical College in 1911 For the past thirty-two years, since 1917, he had practiced in Watertown Dr Montgomery was attending physician at the House of the Good Samaritan and Mercy Hospitals, both in Watertown He was widely known through his interest and efforts to aid cancer patients In 1946 Dr Montgomery was an organizer of the Jefferson County unit of the New York State division of the American Cancer Society and had served three successive terms as president He was also a member of the executive board of the New York State division of the American Cancer Society

A charter member of the New York State Industrial Surgical Society, Dr Montgomery was a member of the Jefferson County and New York State Medical Societies and the American Medical Association

William Wellesley Percy, M D, of Rochester, died on August 9 at his summer home in Churchville at the age of seventy-five Dr Percy was graduated from the Syracuse University College of Medicine in 1901 and interned at the Rochester City Hospital and then opened his practice in Rochester Dr Percy served in the Spanish-American War and in World War I, when he spent six months in France and was also on duty at the Mexican border, in 1917 and 1918

Dr Percy retired three years ago from general practice and also resigned as executive director of the Rochester Academy of Medicine, a post he had held since 1939 At that time he was elected a life member of the Academy A Fellow of the American College of Surgeons, Dr Percy was a member of the Rochester Academy of Medicine, the Rochester Pathological Society, the Rochester Medical Association, the Monroe County and New York State Medical Societies, and the American Medical Association

Jacques Cortelyou Rushmore, M D, died on September 3 at his home in East Fishkill at the age of seventy-three Dr Rushmore received his medical degree from the Long Island College Hospital in 1903 and interned there for two years, opening his practice in Brooklyn in 1905 In 1908 Dr Rushmore was appointed head of the orthopedic clinic at the Long Island College Hospital, a position he held until his retirement in 1941 From 1911 to 1941 he was professor of orthopedics at the College During World War I, Dr Rushmore served overseas as a first lieutenant with the Marines attached to Base Hospital 1 in Brest, France

Dr Rushmore was consultant in orthopedics at Brooklyn Hospital, St John's Hospital, Kings County Hospital, and St. Giles Hospital, all in Brooklyn, and for three years was consultant in orthopedics at the Veterans Administration Hospital in Castle Point He was directing librarian of the Kings County Medical Society from 1929 until 1941 and was a member of the Brooklyn Academy of Medicine and the Doctors' Club of Brooklyn A Fellow of the American College of Surgeons, he was also a member of the Kings County and New York State Medical Societies and the American Medical Association



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Allergy to Cottonseed and Other Oilseeds and Their Edible Derivatives. Excerpts from Testimony Before the Administrator, Federal Security Agency Public Hearings Held at Washington, D C November 18, 1947 and January 6 to 8, 1948 Octavo of 275 pages Memphis, Tenn., National Cottonseed Products Assn , 1948

The British Encyclopaedia of Medical Practice Including Medicine, Surgery, Obstetrics, Gynaecology and Other Special Subjects Medical Progress, 1948 Editor in Chief, Rt Hon Lord Horder, M D Octavo of 511 pages London, Eng , Butterworth & Co , 1948

Adolescence Problems A Handbook for Physicians, Parents, and Teachers. By William S Sadler, M D Octavo of 466 pages St Louis, C V Mosby Co , 1948 Cloth, $4.75

The Basis of Chemotherapy By Thomas S Work, Ph D , and Elizabeth Work, Ph D Octavo of 435 pages, illustrated. New York, Interscience Pubs , 1948 Cloth, $6 50

Industrial Hygiene and Toxicology Frank A Patty, Editor Vol. I Octavo of 531 pages, illustrated. New York, Interscience Pubs , 1948 Cloth, $10 00

Cornell Conferences on Therapy Harry Gold, M D , Managing Editor Vol. 3 Duodecimo of 337 pages, illustrated New York, Macmillan Company, 1948 Cloth, $3 50

Your Child or Mine The Story of the Cerebral-Palsied Child. By Mary Louise Hart Burton, in collaboration with Sage Holter Jennings Duodecimo of 64 pages, illustrated. New York, Coward-McCann, 1949 Cloth, $1 25

The Alcoholic Woman. Case Studies in the Psychodynamics of Alcoholism. By Benjamin Karpman, M D Sponsored by Washington Institute of Medicine Research Foundation Octavo of 241 pages, illustrated Washington, Linacre Press, 1948 Cloth, $3 75

The Medical Clinics of North America. Chicago Number January, 1949 Octavo Philadelphia, W B Saunders Co , 1949 Published Bimonthly (six numbers a year) Cloth, $16 net, Paper, $12 net

Deep Massage and Manipulation Illustrated. By James Cyriax, M D Third edition Octavo of 278 pages, illustrated. New York, Paul B Hoeber, 1948 Cloth, $5 00

Obstetric Analgesia and Anesthesia. Their Effects Upon Labor and the Child. By Franklin F Snyder, M D Octavo of 401 pages, illustrated Philadelphia, W B Saunders Co , 1949 Cloth, $6 50

Blood Transfusion. By Elmer L DeGowin, M D , Robert C Hartin, M D , and John B Alsever, M D Octavo of 587 pages, illustrated Philadelphia, W B Saunders Co , 1949 Cloth, $9 00

Mayo Clinic Diet Manual. By The Committee on Dietetics of the Mayo Clinic Octavo of 329 pages Philadelphia, W B Saunders Co , 1949 Paper, $4.00

Clinical Aspects and Treatment of Surgical Infections By Frank Lamont Meleney, M.D Octavo of 840 pages, illustrated Philadelphia, W B Saunders Co , 1949 Cloth, $12

The Business Side of Medical Practice. By Theodore Wiprud Second Edition Duodecimo of 232 pages, illustrated. Philadelphia, W B Saunders Co , 1949 Cloth, $3 50

A Treatise on Contemporary Religious Jurisprudence By I H. Rubenstein Octavo of 120 pages Chicago, The Waldain Press, 1948 Cloth, $2 50

Oxford *Loose-Leaf Medicine, Supplements* 20 reprints Octavo New York, Oxford University Press, 1948 Available only to subscribers

The Venereal Diseases A Manual for Practitioners and Students. By James Marshall, M.D Second edition Octavo of 369 pages, illustrated New York, Macmillan Co , 1948 Cloth, $5 50

The Case Against Socialized Medicine A Constructive Analysis of the Attempt to Collectivize American Medicine By Lawrence Sullivan. Second edition Duodecimo of 54 pages Washington, Statesman Press, 1949 Cloth, $1 50

Introduction to Physiological and Pathological Chemistry With Laboratory Experiments. By L Earle Arnow, M D Third edition Octavo of 595 pages, illustrated St. Louis, C V Mosby Co , 1949 Cloth, $4.00

Clinical Case-Taking Guides for the Study of Patients History-Taking and Physical Examination or Semiology of Disease in the Various Systems By George R Herrmann, M D Fourth edition. Octavo of 240 pages, illustrated St Louis, C V Mosby Co , 1949 Cloth, $3 50

Oral Anatomy By Harry Sicher, M D Quarto of 529 pages, illustrated St. Louis, C V Mosby Co , 1949 Cloth, $15

Diabetes and Its Treatment. By Joseph H Barach, M D Octavo of 326 pages, illustrated. New York, Oxford University Press, 1949 Cloth, $10 00

Diabetic Menus, Meals and Recipes. By Betty M West Octavo of 254 pages New York, Doubleday & Co , 1949 Cloth, $2 95

Campbell's Operative Orthopedics *J S Speed*, M.D , Editor, Hugh Smith, M D , Associate Editor Second edition In two volumes Quarto of 1,643 pages, illustrated St Louis, C V Mosby Co , 1949 Cloth, $30

Social Medicine Its Derivations and Objectives The New York Academy of Medicine, Institute on Social Medicine, 1947 Edited by Iago Galdston, M D Octavo of 294 pages New York, Commonwealth Fund, 1949 Cloth, $2 75

The Physiology of the Eye By Hugh Davson

[Continued on page 2334]

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[Continued from page 2332]

D Sc Octavo of 451 pages, illustrated Philadelphia, Blakiston Co , 1949 Cloth, $7 50

Psychodynamics and the Allergic Patient By Harold A Abramson, M D With Panel Discussion Duodecimo of 81 pages, illustrated St. Paul & Minneapolis, Bruce Publishing Co , 1948 Cloth, $2 50 (An official publication of the American College of Allergists)

Diseases of the Fundus Oculi. With Atlas. By Adalbert Fuchs, M D Translated by Erich Pressburger, M D Edited by Abraham Schlossman, M D Quarto of 337 pages and 44 colored plates Philadelphia, Blakiston Co , 1949 Three-quarters leather, $30

Hindu Medicine By Henry R. Zimmer, Ph D Duodecimo of 201 pages, illustrated Baltimore, Johns Hopkins Press, 1948 Cloth, $4 00

Fractures & Orthopaedic Surgery for Nurses and Masseuses By Arthur Naylor, M B (Eng) Second edition Octavo of 296 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $5 00

Critical Studies in Neurology By F M R Walshe, M D Octavo of 256 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $4.50

Symptoms in Diagnosis By Jonathan Campbell Meakins, M D Second edition Octavo of 542 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $7 50

The 1948 Year Book of General Medicine Edited by Paul B Beeson, M D , J Burns Amberson, M D , George R Minot, M D , *et al* Duodecimo of 821 pages, illustrated Chicago, Year Book Publishers, 1948 Cloth, $4 50

Handbook of Diseases of the Skin By Richard L Sutton, M D , and Richard L Sutton, Jr , M D Octavo of 749 pages, illustrated. St. Louis, C V Mosby Co , 1949 Cloth, $12 50

The Management of Binocular Imbalance By Emanuel Krimsky, M D Quarto of 464 pages, illustrated Philadelphia, Lea & Febiger, 1948 Cloth, $12 50

Doctors of Infamy The Story of the Nazi Medical Crimes By Alexander Mitscherlich, M D , and Fred Mielke Translated by Heinz Norden With statements by Andrew C Ivy, M D , Brig Gen Telford Taylor, U S A , and a note on Medical Ethics by Albert Deutsch. Octavo of 172 pages, illustrated New York, Henry Schuman, 1949 Cloth, $3 00

The Story of Scabies Vol I By Reuben Friedman, M D Octavo of 468 pages, illustrated New York, Froben Press, 1948 Cloth, $7 50

The Pharmacologic Principles of Medical Practice A Textbook on Pharmacology and Therapeutics for Medical Students, Physicians, and the Members of the Professions Allied to Medicine By John C Krantz, Jr , Ph M , and C Jelleff Carr Octavo of 980 pages, illustrated Baltimore, Williams & Wilkins Co , 1949 Cloth, $10 00

Human Relationships in Public Health. Report of an Institute on Mental Health in Public Health. By Geddes Smith Octavo of 18 pages New York, Commonwealth Fund, 1949 Paper, 15¢.

Allergy What It Is & What to Do About It. By Harry Swartz, M D Octavo of 210 pages. New Brunswick, Rutgers University Press, 1949 Cloth, $2 75.

Practical Aspects of Thyroid Disease By George Crile, Jr , M D Octavo of 355 pages, illustrated. Philadelphia, W B Saunders Co , 1949 Cloth, $6 00

Current Therapy 1949 Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F Conn, M D Consulting Editors, M Edward Davis, M D , Vincent J Derbes, M.D , Garfield G Duncan, M.D , *et al.* Quarto of 672 pages Philadelphia, W B Saunders Co , 1949 Cloth, $10 00

Atlas of Peripheral Nerve Injuries. By William R. Lyons, Ph D , and Barnes Woodhall, M D Folio of 339 pages, illustrated Philadelphia, W B Saunders Co , 1949 Cloth, $16

Neoplasms of Bone and Related Conditions Their Etiology, Pathogenesis, Diagnosis, and Treatment. By Bradley L Coley, M D Quarto of 765 pages, illustrated New York, Paul B Hoeber, 1949 Cloth, $17 50

The March of Medicine. The New York Academy of Medicine Lectures to the Laity, 1948 Octavo of 163 pages New York, Columbia University Press, 1949 Cloth, $2 50

In the Name of Humanity! By Joseph Lewis Duodecimo of 158 pages, illustrated New York, Eugenics Publishing Co , 1949 Cloth, $2 00

Neurological and Neurosurgical Nursing By C G de Gutiérrez-Mahoney, M D , and Esta Carini, R.N Octavo of 516 pages, illustrated. St. Louis, C V Mosby Co , 1949 Cloth, $5 75

Bone Marrow Biopsy Haematology in the Light of Sternal Puncture By S J Leitner, M D English Translation revised and edited by C J C. Britton, M D , and E Neumark, M B (Eng) Octavo of 433 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $8 50

Clinical Orthoptics. Diagnosis and Treatment. By Mary Everist Kramer Edited by Ernest A. W Sheppard, M D , and Louisa Wells-Kramer Octavo of 475 pages, illustrated St. Louis, C V Mosby Co , 1949 Cloth, $8 00

Operating Room Technique By Edythe Louise Alexander, R.N Second edition. Octavo of 765 pages, illustrated St. Louis, C V Mosby Co , 1949 Cloth, $10 00

Everyday Psychiatry Concise, Clinical, Practical By John D Campbell, M D Second edition. Octavo of 394 pages Philadelphia, J B Lippincott Co , 1949 Cloth, $6 00

Surgery of the Eye By Meyer Wiener, M D Second edition Octavo of 426 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $12.

Child Health Services in New York State A cooperative study by the State representatives of the American Academy of Pediatrics, with the assistance of the Medical Society of the State of New York and various other organizations. George M Wheatley, M.D , Director of the New York Study for the American Academy of Pediatrics Octavo of 94 pages, illustrated. New York, New York State Study Committee, American Academy of Pediatrics, 1949

The Medical Clinics of North America. Nationwide Number March, 1949 Octavo Philadelphia, W B Saunders Co , 1949 Published Bimonthly (six numbers a year) Cloth, $16 net, Paper, $12 net.

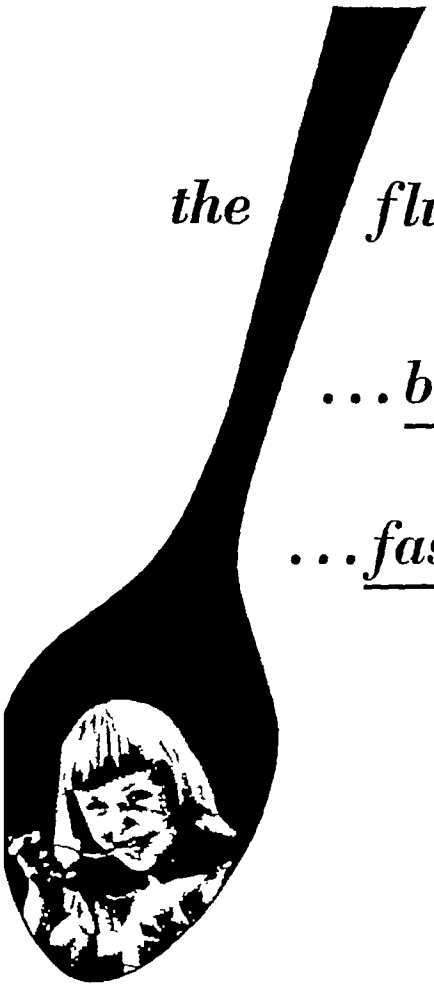
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[Continued on page 2336]

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[Continued from page 2334]

Octavo of 466 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $7 50

Cardiac Catheterization in Congenital Heart Disease A Clinical and Physiological Study in Infants and Children By André Cournand, M D, Janet S Baldwin, M D, and Aaron Himmelstein, M D Quarto of 108 pages, illustrated New York, Commonwealth Fund, 1949 Cloth, $4.00

Modern Foot Therapy By Reuben H. Gross, Pod D, in collaboration with Henri L DuVries, M D, Charles E Krausz, D S C, Samuel L Robbins, M D, and Lloyd E Wilson, M D With chapters by 15 others Octavo of 710 pages, illustrated New York, Modern Foot Therapy Publishing Co, 1948 Cloth, $9 50

Child Health Services and Pediatric Education. Report of the Committee for the Study of Child Health Services, the American Academy of Pediatrics With the cooperation of the United States Public Health Service and the United States Children's Bureau. Octavo of 269 pages, illustrated. New York, Commonwealth Fund, 1949 Cloth, $3 50

Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals Edited and Published by J Morgan Jones In four sections Quarto of 520 pages Rutherford, N J, Medical Economics, Inc, 1948 Cloth, gratis

Early Recognition of Disease Edited by Sir Heneage Ogilvie, M Ch.(Eng), and William A. R. Thomson, M D Octavo of 134 pages. London, Eyre & Spottiswoode Ltd, 1949 Cloth, 10/6 ("The Practitioner" Handbooks)

The Ciba Collection of Medical Illustrations A compilation of pathological and anatomical paintings prepared by Frank H. Netter, M D Folio of 222 pages, illustrated. Summit, N J, Ciba Pharmaceutical Products, Inc, 1948 Cloth, $6 50

Why Do Patients in Tuberculosis Hospitals Leave Against Medical Advice and an Analysis of the Records of all Patients Discharged During Year 1947 Metropolitan Hospital, Tuberculosis Division, Municipal Sanatorium, Otisville, N Y, St. Anthony's Hospital, Woodhaven, N Y, Valley View Sanatorium, Passaic County, N J By New York Tuberculosis and Health Association. Quarto of 66 pages New York, Tuberculosis and Health Association, 1949

The National Health Council and Its Member Organizations Basic Information About 23 National Health Organizations. By National Health Council. Octavo of 51 pages. New York, National Health Council, 1949 Paper, 25¢.

Aesculapius Comes to the Colonies. The Story of the Early Days of Medicine in the Thirteen Original Colonies By Maurice Bear Gordon, M D Octavo of 560 pages, illustrated. Ventnor, N J, Ventnor Publishers, Inc, 1949 Cloth, $10 00

Coronary Artery Disease By Ernst P Boas, M D, and Norman F Boas, M D Octavo of 399 pages, illustrated. Chicago, Year Book Publishers, 1949 Cloth, $6 00

Evaluation of Chemotherapeutic Agents Symposium Held at the New York Academy of Medicine, March 25 and 26, 1948 Edited by Colin M MacLeod, M D Octavo of 205 pages, illustrated. New York, Columbia University Press, 1949 Cloth, $4.00

Present Concepts of Rehabilitation in Tuberculosis A Review of the Literature, 1938–1947 By Norvin C Kiefer, M D Octavo of 398 pages New York, National Tuberculosis Association, 1948. Cloth, $3 50

Transactions of the Third American Congress on Obstetrics and Gynecology, Municipal Auditorium, St. Louis, Missouri, September 8 to 12, 1947 Sponsored by The American Committee on Maternal Welfare, Inc Edited by Geo W Kosmak, M.D, and Robert N Rutherford, M D Quarto of 412 pages, illustrated. Portland, Ore., The Western Journal of Surgery Publishing Company, 1948. Cloth, $9 00

Thank God for My Heart Attack. By Charles Yale Harrison. Duodecimo of 144 pages. New York, Henry Holt & Co, 1949 Cloth, $2 50

The Epidemiology of Hemolytic Streptococcus During World War II in the United States Navy By Alvin F Coburn, M D, and Donald C Young, M D Octavo of 229 pages, illustrated Baltimore, Williams & Wilkins Co, 1949 Cloth, $4.00

The 1948 Year Book of Neurology, Psychiatry and Neurosurgery. Neurology edited by Hans H Reese, M D, and Mabel G Masten, M.D Psychiatry edited by Nolan D C Lewis, M D Neurosurgery edited by Percival Bailey, M D Duodecimo of 750 pages, illustrated. Chicago, Year Book Publishers, 1949 Cloth, $5 00

The Uses of Penicillin and Streptomycin. By Chester Scott Keefer, M D Octavo of 72 pages. Lawrence, Kansas, University of Kansas Press, 1949 Cloth, $2 00 (Porter Lectures, Series 15)

An Atlas of Bone-Marrow Pathology By M C G Israëls, M D Illustrated by D Davison. Octavo of 79 pages New York, Grune & Stratton, 1948 Cloth, $6 50

Diseases of the Liver, Gallbladder and Bile Ducts By S S Lichtman, M D Second edition Octavo of 1,135 pages, illustrated. Philadelphia, Lea & Febiger, 1949 Cloth, $18

Diagnosis of Viral and Rickettsial Infections Edited by Frank L. Horsfall, Jr, M D Symposium held at the New York Academy of Medicine, January 29 and 30, 1948 Octavo of 153 pages, illustrated. New York, Columbia University Press, 1949 Cloth, $3 75

Microbiology and Man. By Jorgen Birkeland, Ph.D Second edition. Octavo of 525 pages, illustrated. Baltimore, Williams & Wilkins Co, 1949 Cloth, $5 00

Must We Hide? By R. E Lapp, Ph.D Octavo of 182 pages, illustrated Boston, Addison-Wesley Press, 1949 Cloth, $3 00

Histology and Histopathology of the Eye and Its Adnexa. By I G Sommers, M.D Octavo of 784 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $12

Food and Facts for the Diabetic. By Joseph H Barach, M.D Octavo of 113 pages, illustrated. New York, Oxford University Press, 1949 Cloth, $4 00

Skin Diseases in General Practice By F Ray Bettley, M D Octavo of 260 pages, illustrated London, Eyre & Spottiswoode, Ltd, 1949 Cloth, 21/- ("The Practitioner" Handbooks.)

[Continued on page 2338]

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[Continued from page 2336]

BOOKS REVIEWED

The Medical Clinics of North America. Philadelphia Number November, 1948 Index 1946–1948 Octavo Philadelphia, W B Saunders Co, 1948 Published Bimonthly (six numbers a year) Cloth, $16 net, Paper, $12 net.

This number of the *Clinics* is devoted almost entirely to the more important advances in obstetrics and gynecology Especially good are sections on menstruation, Rh factor, prenatal syphilis, and a separate chapter on medical management following vagotomy for peptic ulcer

ANDREW BABEY

Municipal Health Services. By Norman Wilson D.P.A. Duodecimo of 178 pages New York, Macmillan Co, 1946 Cloth, $1 75

This small volume describes the services and administrative machinery which are operating to conserve health in local communities in England It is largely a subject of interest to public health officials of our country in that it will enable them to compare methods employed in England and the United States.

A. E SHIPLEY

An Atlas of Anatomy By J C Boileau Grant, M B (Eng) By Regions, Upper Limb, Abdomen, Perineum, Pelvis, Lower Limb, Vertebrae, Vertebral Column, Thorax, Head and Neck Quarto of 496 pages, illustrated Baltimore, Williams & Wilkins Co, 1947 Cloth, $11

This atlas, in the reviewer's opinion, is for all practical and teaching purposes the superior of any atlas yet produced It is of incontestable value to the student, teacher, practicing physician, and surgeon Drawings, photographs, coloring, and legends are almost perfect.

From actual observation of the dissections from which drawings and photographs were made, one cannot but be impressed with the painstaking efforts and the vast amount of work that has been done in reproducing upon paper the appearance of actual dissections

No private or group library should be without this atlas

WALTER H SCHMITT

Klinik und Therapie der Leptomeningitiden für Ärzte und Studierende By Hermann Czickeli, M D Octavo of 95 pages. Vienna, Verlag Wilhelm Maudrich (New York, Grune & Stratton), 1948

This book is a well-written compendium of the various types of meningitis. The special print in the index and the appearance on almost all even pages of the words "meningitis cerebrospinalis epidemica" do not seem to be justified With regard to certain manifestations of the diseases the author correctly states that they have decreased in frequency on account of the use of our modern drugs The therapeutic directions are rather short Some space is given to the description and evaluation of the spinal tap The book is obviously a product of the European postwar shortage of medical books

MAX G BERLINER

The Practice of Endocrinology Edited by Raymond Greene, D M (Oxon) Octavo of 366 pages, illustrated London, England, Eyre & Spottiswoode, 1948. Cloth, 52/6 ("The Practitioner" Textbooks.)

The Practice of Endocrinology presents the British point of view in respect to this ever-widening specialty It appears to be reliable, fairly complete, and is particularly useful for reference This is a sound presentation of English endocrinology by eminent clinicians and laboratory men. This volume would be difficult to equal.

ANDREW BABEY

George Crile, an Autobiography Edited by Grace Crile. Octavo of 624 pages, illustrated. Philadelphia, J B Lippincott Co, 1947 Cloth, $10 set.

This work is a compilation of autobiographic notes, with sidelights added by Mrs Crile, and published after Dr Crile's death. It is a fascinating account of a great surgeon, a leader, and a vivid personality Crile had a constantly inquiring mind which early led him into the experimental investigation of shock, and later to fundamental researches concerning the nature of living processes, which stirred up considerable controversy It is a story of a full and satisfying life, with an idyllic family relationship, during the period of the rapid growth of surgery in the late nineteenth and the present century

JOHN H. BOGLE

Subacute Bacterial Endocarditis. By Emanuel Libman, M.D, and Charles K. Friedberg, M D Edited by Henry A. Christian, M.D Octavo. Illustrated. New York, Oxford University Press, 1948. Cloth, $3 50 [Reprinted from Oxford Loose-Leaf Medicine.]

This book is the authority on subacute bacterial endocarditis The authors discuss the classification, etiology, pathology, and clinical features of the disease. They go into great detail on the symptomatology and the newer methods of treatment, and discuss the pathology of the bacteria-free stage The bibliography has been brought up to date in the new edition

Penicillin, sulfa therapy, penicillin therapy, and streptomycin therapy are discussed, also surgical measures.

The authors stress the sensitivity of the organism to penicillin and the importance of maintaining the proper penicillin level. They also stress the remarkable change in the mortality rate since the first edition, due to the newer methods of treatment.

An excellent differential diagnosis is also given There is a preface by Dr Henry A. Christian

VINCENT ANNUNZIATA

Conditioned Reflexes and Neuron Organization By Prof Jerzy Konorski. Translated from the Polish manuscript under the author's supervision by Stephen Garry Octavo of 267 pages, illustrated. Cambridge, at the University Press (New York, Macmillan Co), 1948 Cloth, $4.00 (Cambridge Biological Studies)

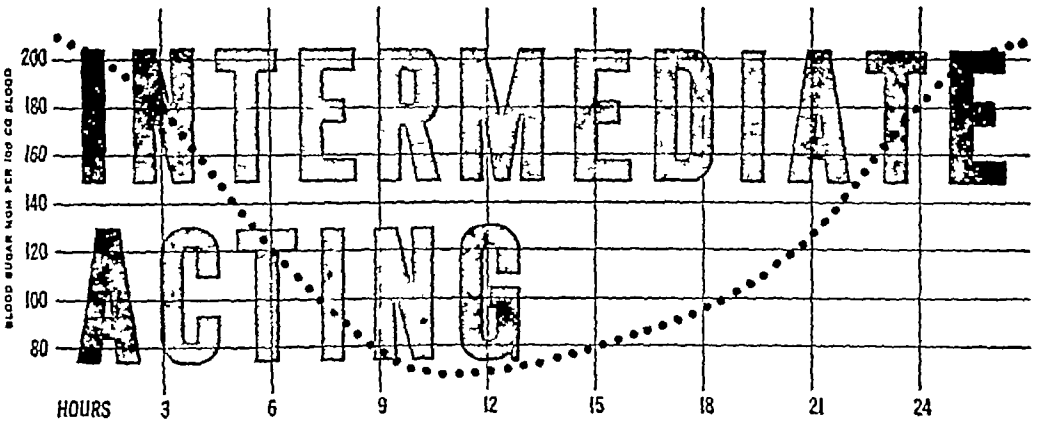
This highly technical work is an attempt to extend Sherrington's conception of the functioning of the nervous system to the field of higher neural activities, and is based on intensive experimental work over a period of some forty years in Pavlov's experimental laboratory It is a book that will appeal to all who are interested in neurophysiology, as it is a fundamental work dealing with the functioning of the nervous system and covers a large experimental area in this particular field of science.

IRVING J SANDS

Psychiatry in General Practice By Melvin W Thorner, M D Octavo of 659 pages Philadelphia W B Saunders Co, 1948 Cloth, $8 00

This is one of the best introductory books to psychiatry that the reviewer has seen. Perhaps it is *the*

[Continued on page 2340]



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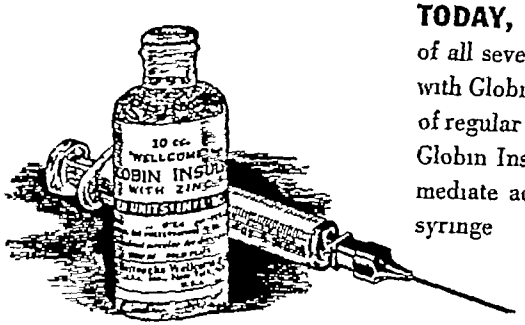
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1 Rohr J H. and Colwell A.R Arch. Int Med. 82 54 1948
2. Ibid Proc. Am. Diabetes Assn. 8 37 19-8.

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[Continued from page 2338]

best A very outstanding feature is the elaborate case histories of distressed patients with an excellent, sound, rational interpretation, which, it is often admitted, may not be the ultimate explanation,but which, none the less, is helpful. Another original feature is the omission of confusing terms and scientific designations The book is very warmly recommended for all practitioners and internists

ANDREW BABEY

Sterility and Impaired Fertility Pathogenesis, Investigation & Treatment. By Cedric Lane-Roberts, M S, Albert Sharman, M D, Kenneth Walker, M B, *et al.* Octavo of 400 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $6 50

In this revised text, the authors have critically reviewed the literature since the publication of their first edition in 1939 They have avoided the speculative and controversial, evaluated it, and presented the information in simple terms This is particularly evidenced in their discussions of the technic and interpretations of semen analyses, postcoital and invasion tests, basal body temperature recordings, as well as their views with regard to tubal insufflations and artificial insemination

The authors have maintained a clinical viewpoint of the application of all the procedures used in the diagnosis in infertility, both male and female, and have augmented this with many more illustrations, graphs, and tables than in their first edition

This book is recommended as a valuable addition to the library of those interested in the problems of human infertility

SAMUEL L SIEGLER

Malignant Disease and its Treatment by Radium. By Sir Stanford Cade, F R C S Volume I Second edition Octavo of 383 pages, illustrated. Baltimore, Williams & Wilkins Co, 1948 Cloth, $12 50

Sir Ernest Carling in his foreword says, "This is one of the most remarkable books in surgery that has been published in my lifetime" Carling further tells of how, like Newton and T E Lawrence, the author lost the whole first volume of his manuscript in two wartime bombing disasters Undismayed, Sir Stanford Cade has gone ahead to reproduce "his predecessors in misfortune"

As surgeon to the Westminster Hospital, Dr Cade has been in a position to care for some 4,000 cases of malignant disease in the period between 1924–1939 The author shows his true colors when he gives credit to "Several generations of House Surgeons, Chief Assistants, and Research Radiotherapists for their help in trying out new methods, obtaining records, and solving many problems in the practical application of radium."

The illustrations, including charts and schematic drawings, particularly those in color, are first class and well chosen

This book is recommended for reading by all physicians and for study by all radiotherapeutists

WILLIAM E. HOWES

Concise Anatomy By Linden F Edwards, Ph.D Quarto of 548 pages, illustrated. Philadelphia, Blakiston Co, 1947 Cloth, $5 50

This book is intended primarily for nonmedical students of physical education It is a condensed treatise on descriptive and applied human anatomy, microscopic, gross, and developmental. It considers fundamental biologic principles and processes, including a brief résumé of maladjustments of the human body to the erect position, which should be of interest to the practicing physician.

Illustrations have been culled mostly from standard textbooks

The descriptive material, although condensed, is thorough

WALTER H SCHMITT

Occupational Marks and Other Physical Signs. A Guide to Personal Identification. By Francesco Ronchese, M D Octavo of 181 pages, illustrated New York, Grune & Stratton, 1948 Cloth, $5 50

In this book the author presents various examples of characteristic marks produced on the body by different occupations These marks are of use in the diagnosis of disease They are also of considerable value as an aid to personal identification The book contains numerous illustrations depicting the various stigmata produced by occupational trauma and previous disease

EDWARD H NIDISH

Pediatric Anesthesia. By M Digby Leigh, M.D, and M. Kathleen Belton, M D Octavo of 240 pages, illustrated New York, Macmillan Co, 1948. Cloth, $5 50

Pediatric Anesthesia is an important contribution to the fields of anesthesiology and surgery, because it makes the highly developed anesthetic technics in adults applicable to children. The charts for premedication dosage, simple and detailed descriptions of technics, and the treatment of pre- and postoperative care and of postanesthetic complications make this book necessary to every physician's library The authors' indications for the endotracheal technic are much overemphasized The chapters on preoperative preparation, respiration and circulation, postoperative care, prophylaxis and therapy with oxygen, and fluid therapy are recommended reading for general practitioners and pediatricians

IRVING M PALLIN

Manual of Public Health Hygiene By J R. Currie, M D, and A. G Mearns, M D Third edition Octavo of 724 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $9 00

The review of hygiene by Currie and Mearns is a treatise dealing with hygiene in school, home, business, and labor It outlines public health administration, statistics, food control, ventilation and warming of homes, lighting, water supply, waste disposal, housing and hospitals, infections and preventive medicine, community diseases, infestations, personal hygiene, health education, meteorology, international health relations, and social or socialized medicine

This is essentially a publication relating to English and Scottish health regulations, although there are some references to conditions found in the United States

ARTHUR D JAQUES

Hospital Trends and Developments, 1940–1946 Edited by Arthur C Bachmeyer, M D, and Gerhard Hartman, Ph D Octavo of 819 pages New York, Commonwealth Fund, 1948. Cloth, $5 50

It is reassuring to note the increasing recognition by the medical profession, public health officials, and the laity of the importance of hospitals in a comprehensive community health program.

This book, subsidized by the Commonwealth Fund, contains a tremendous amount of valuable information as to trends in the hospital field. A host of contributors, each qualified to discuss his particular subject, make this volume a notable one

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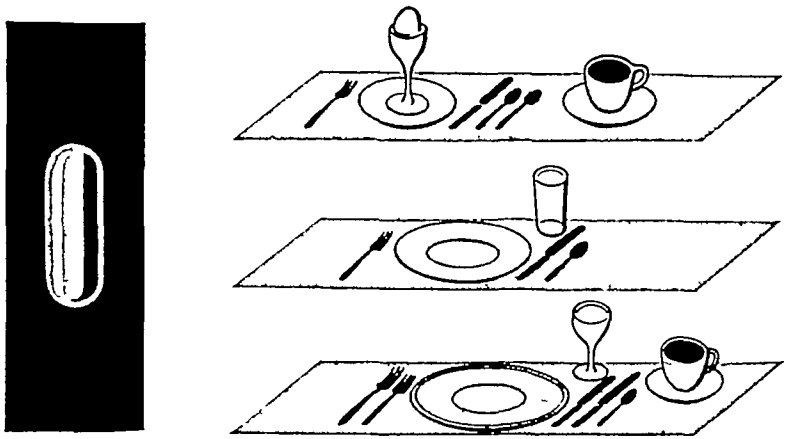
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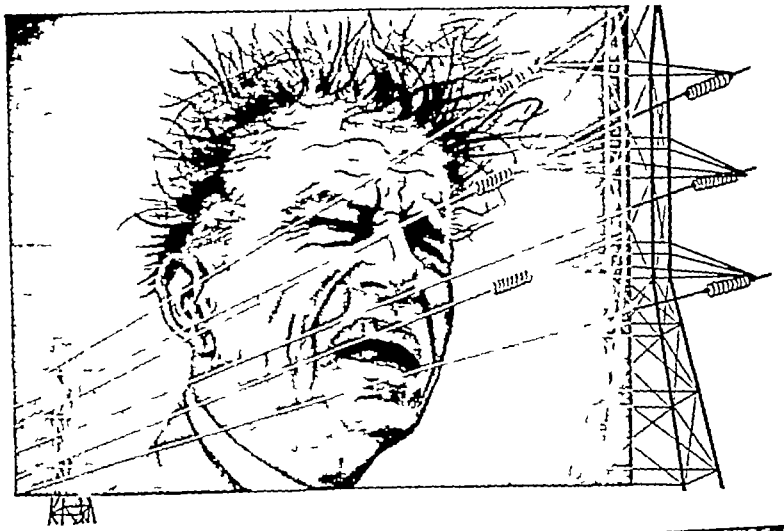
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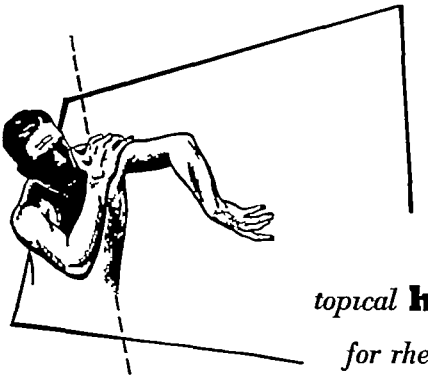
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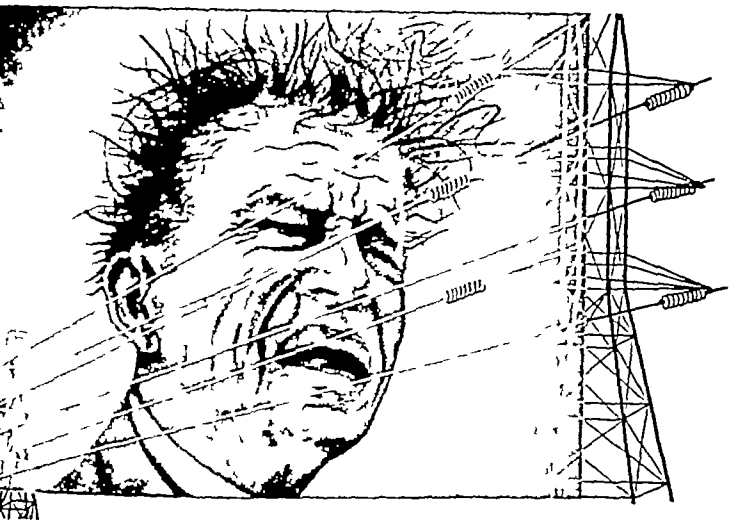
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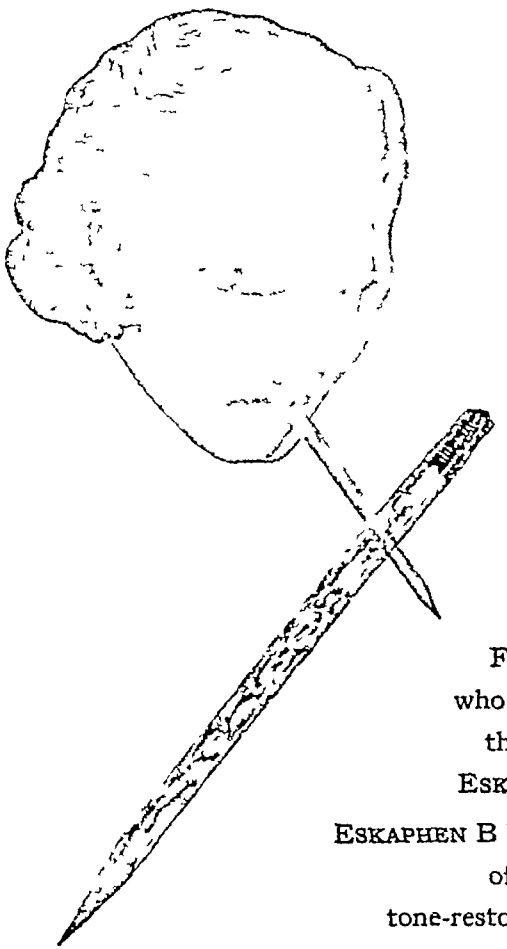
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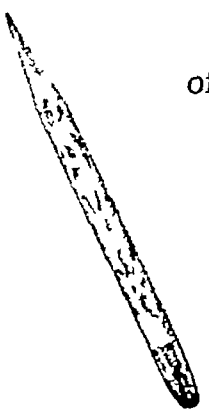
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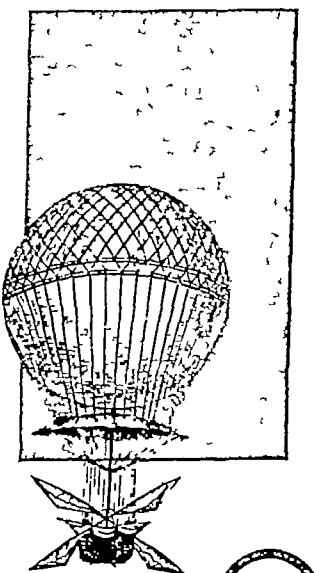


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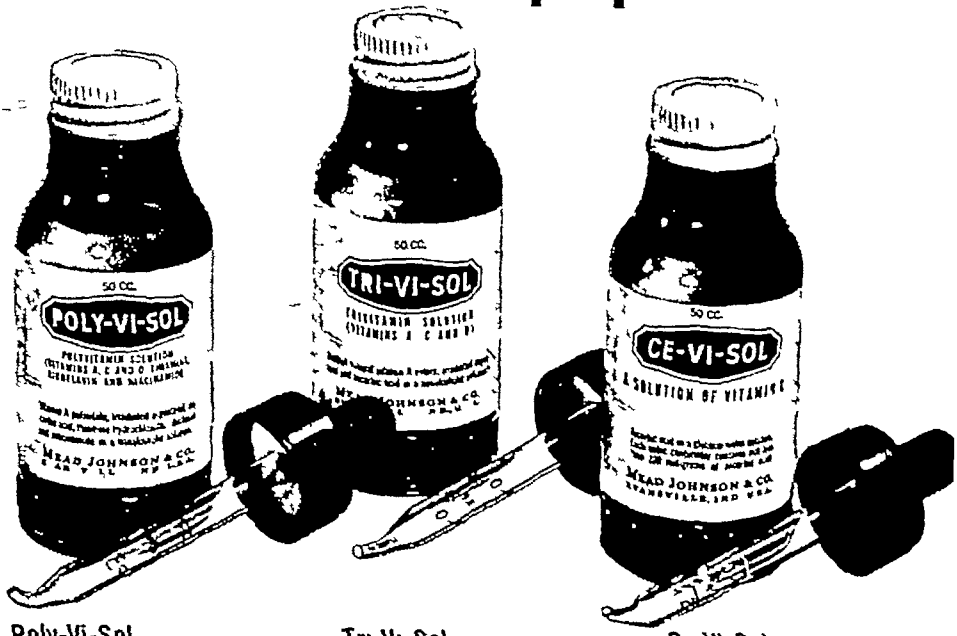
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Diphtheria Immunity in High School Seniors

Clinicopathologic Conferences. Mediastinal Cystic Necrosis of the Aorta and Dissecting Aneurysm with Rupture into the Pericardial Sac

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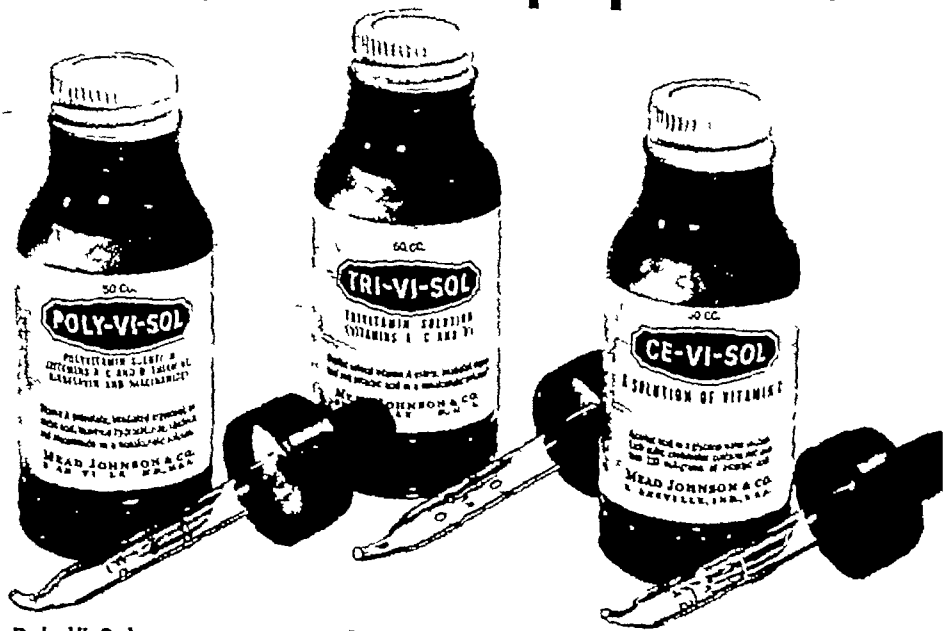
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President's Page

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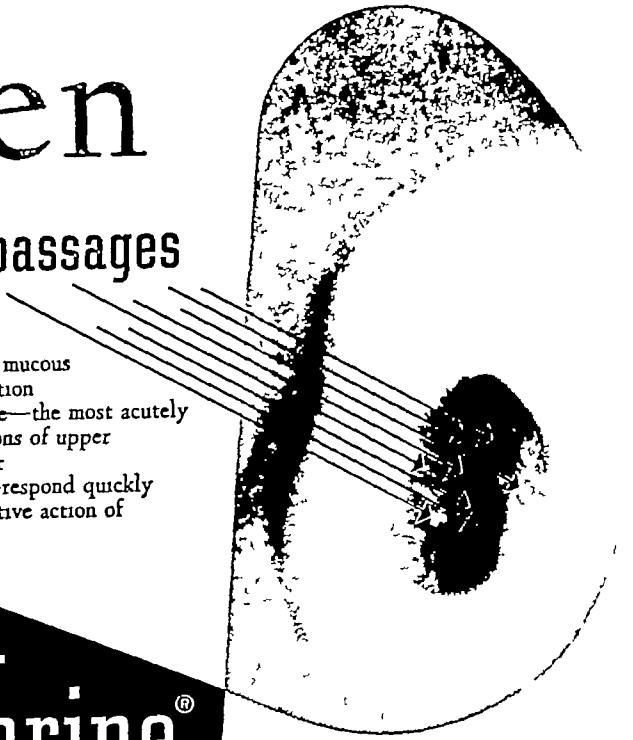
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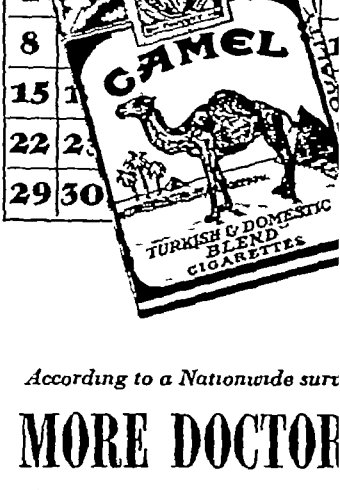
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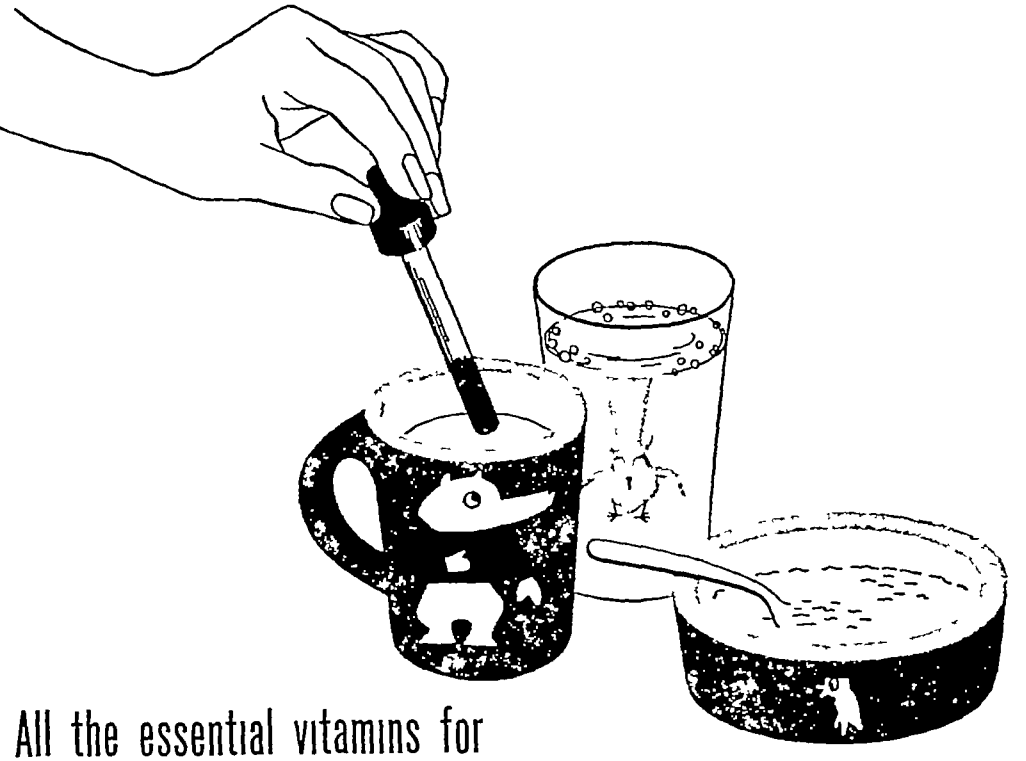
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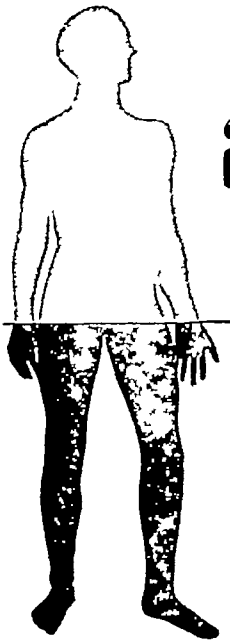
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1 WHITE, C. S 'Intravenous Fluids with Particular Reference to Amino Acids M Ann District of Columbia, 15.251 (June) 1946

2 MEYER, J A., KOZOLL, D D Protein Deficiency in Surgical Patients' Surg Gyn & Obst 78 181 (February) 1944

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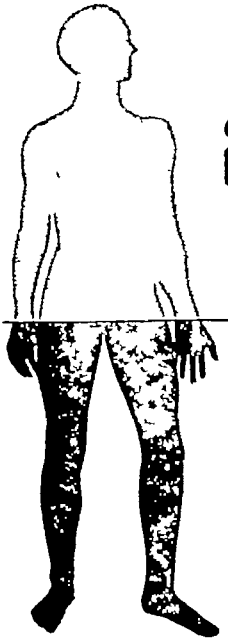
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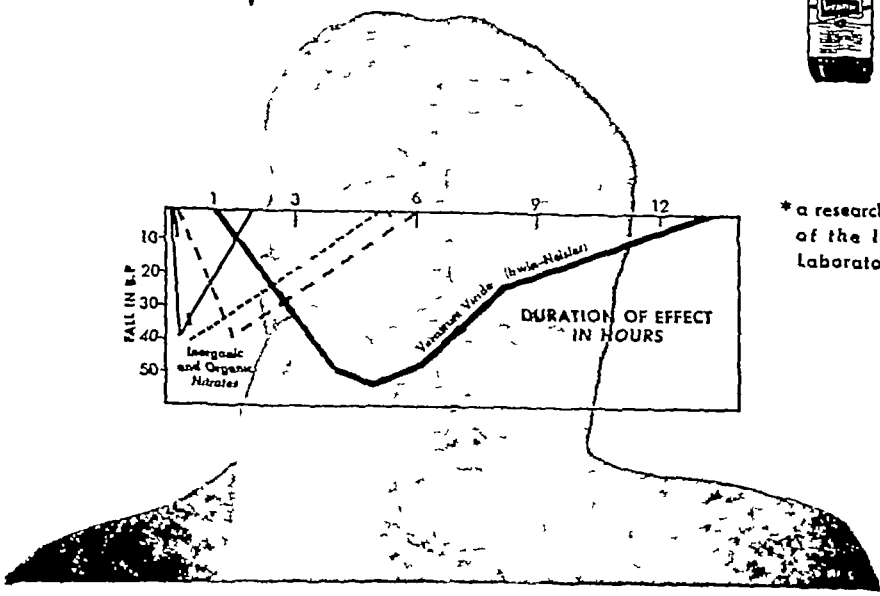
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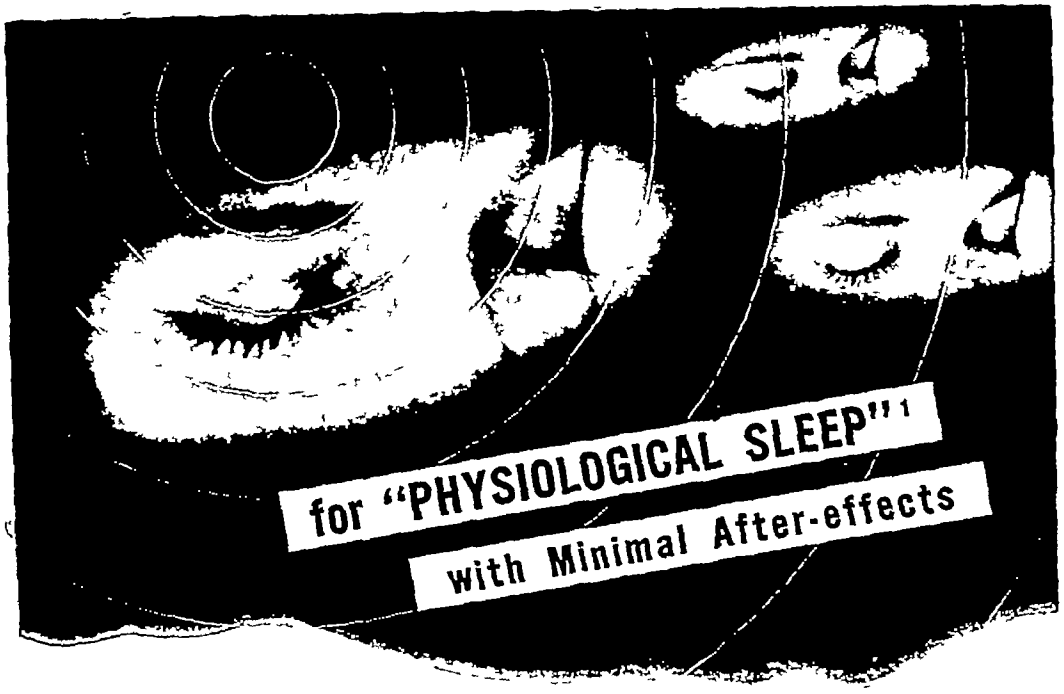
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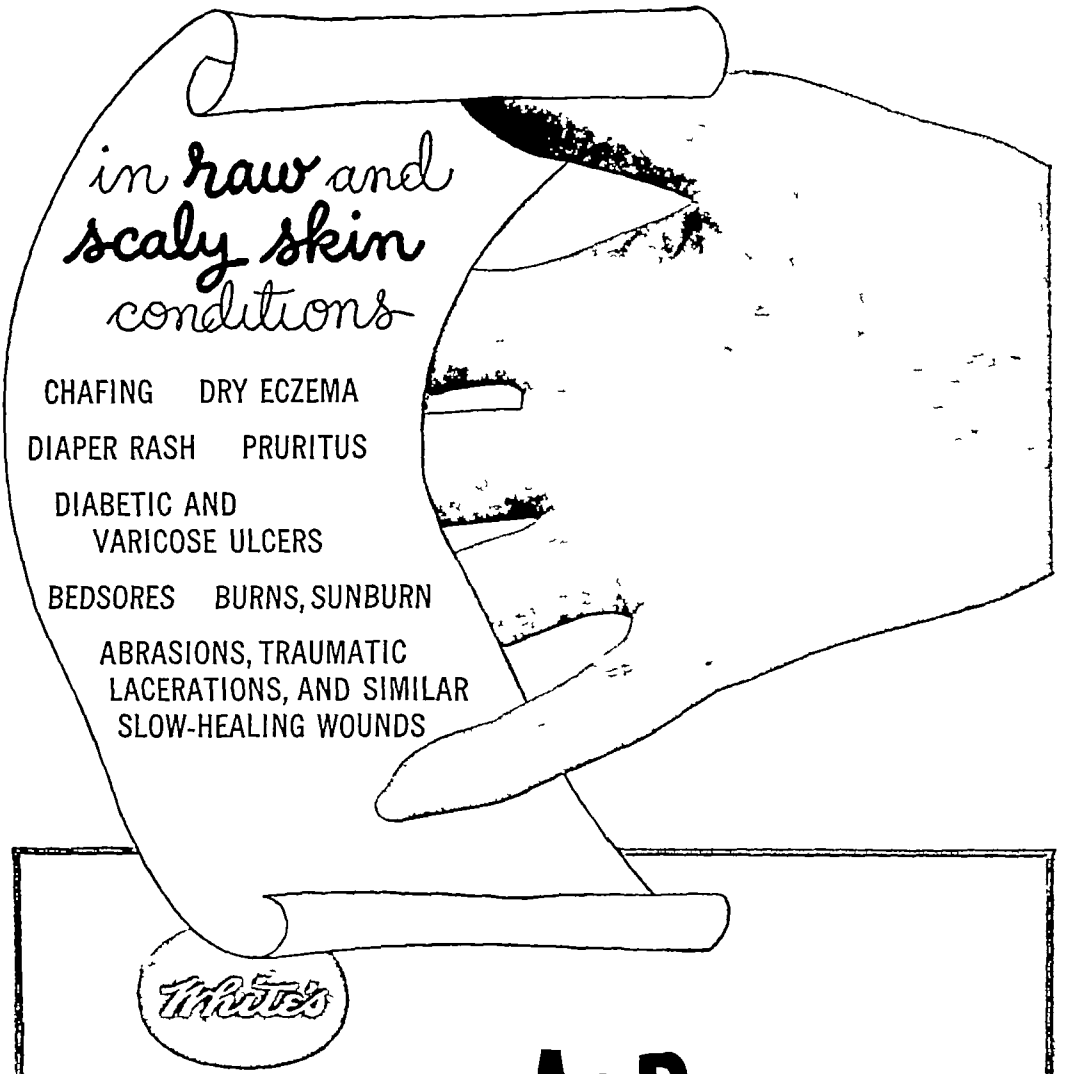
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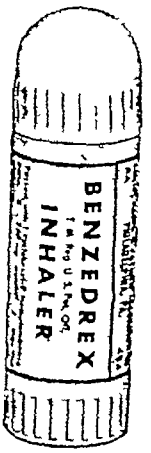
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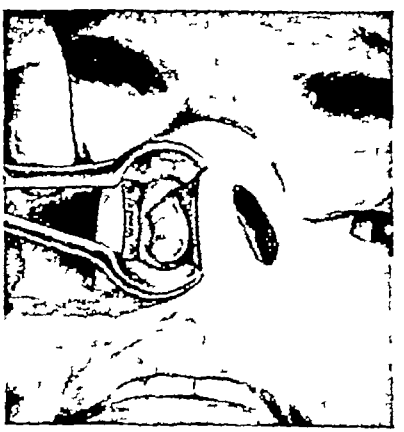
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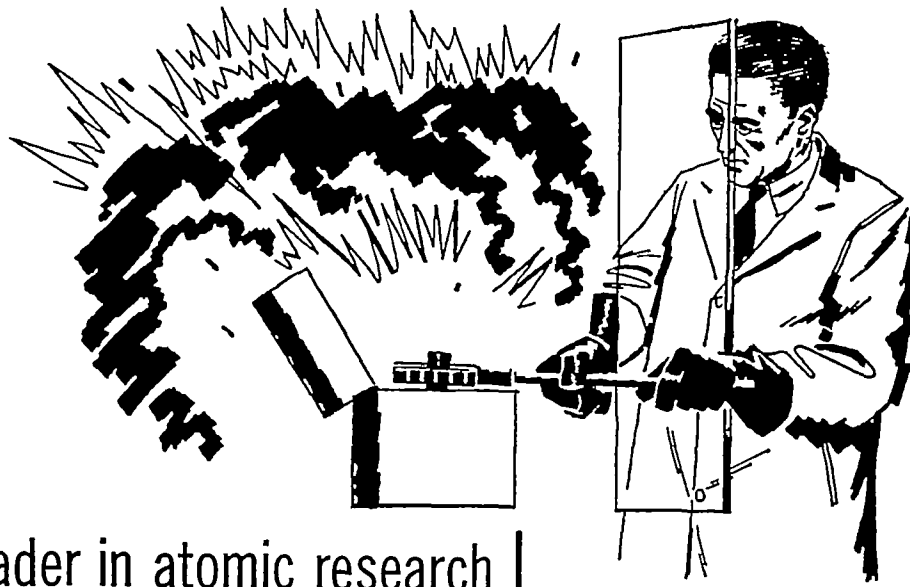
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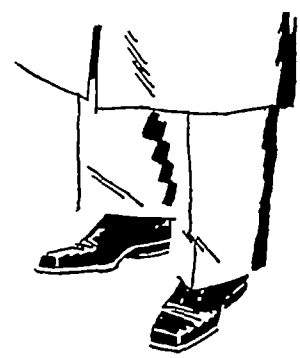
the penicillin-vasoconstrictor combination for intranasal use



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Intent upon an experiment with a hot sample, he forgets lunch—again—and his need for more sensible diet and supplementary vitamin B complex grows more pronounced For him, and other patients with avitaminosis B, SUR BEX Tablets supply the high potency vitamin B such deficiency states require SUR BEX Tablets are filled with an abundance of natural and synthetic B factors, making them suitable for both preventive and corrective use One, two or more tablets daily may be prescribed as indicated *For all their potency*, SUR BEX *Tablets are pleasant and easy to take, because they are triple-coated to seal out moisture, seal in odors of liver, yeast, thiamine and other ingredients* Pharmacists have them in bottles of 100, 500 and 1000 Remember—SUR BEX for dietary dubs

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PYRIDOXINE HYDROCHLORIDE	1 mg
PANTOTHENIC ACID (as Calcium Pantothenate)	10 mg.
LIVER FRACTION (boiling water extract)	0.3 Gm (5 grs.)
BREWER'S YEAST DRIED	0.15 Gm (2½ grs.)

*Minimum Daily Requirement.
**Recommended Daily Dietary Allowance.

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SUR BEX WITH VITAMIN C contains the same rich store of vitamin B as regular SUR BEX, plus 150 mg ascorbic acid Bright yellow capsule-shaped tablets are supplied in bottles of 100 500 and 1000

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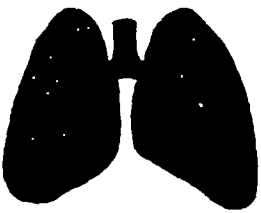
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by Tongue, by Lung, by G. I. Tract



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Potent penicillin G aerosol solutions can be prepared readily by dissolving PENALEV tablets in water or normal saline



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Readily soluble in water Buro-sol Solution is therapeutically equivalant to Burows Solution (Liq Al Acet)

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a distinctive, new, non-narcotic antitussive-expectorant

At last, something really new in cough syrups something completely rational clinically sound Robitussin 'Robins' Robitussin employs glyceryl guaiacolate and desoxyephedrine hydrochloride, in a palatable aromatic syrup vehicle

Glyceryl guaiacolate has proven an effective aid to expectoration, and a cough ameliorator with prolonged action, through its increase in and thinning of respiratory tract fluid,[1 2 3] yet it has no ill effect upon digestion [1]

Desoxyephedrine's sympathomimetic action is also well recognized[4 5 6] by relaxing spasm of the bronchial musculature and helping maintain normal respiratory smooth muscle tone, it greatly minimizes the provocation of cough from spasm [5] At the same time it affords relief from psychic depression or a feeling of fatigue

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Robitussin

FORMULA Each 5 cc. (1 teaspoonful) of Robitussin contains

Glyceryl Guaiacolate	100 mg
Desoxyephedrine Hydrochloride	1 mg

In a palatable aromatic syrup

DOSAGE Children one-half to one teaspoonful according to age three or more times daily Adults, one or two teaspoonfuls as necessary every two to three hours.

SUPPLIED Pint and gallon bottles.

REFERENCES: 1 Connell, W F et al: Canadian Med. Assoc. J., 42.220 1940 2. Perry W F and Boyd E. M.: J Pharm. Exper Ther 73.65 1941 3 Stevens M. E. et al: Canadian Med. Assoc. J 48:124 1943 4 Foltz, E. E. et al J Lab. Clin. Med. 28 603 1943 5 Graham B E.: Ind. Eng Chem., Ind. Ed. 37 149 1945. 6. Schulz, F and Deckner S., Klin. Wochschr 21 674 1942.

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For wet dressings with astringent and antiphlogistic properties in the symptomatic treatment of inflammations sprains insect bites. For rapid healing by their antipruritic decongestive action. Accurate dosage Antiseptic Stable.
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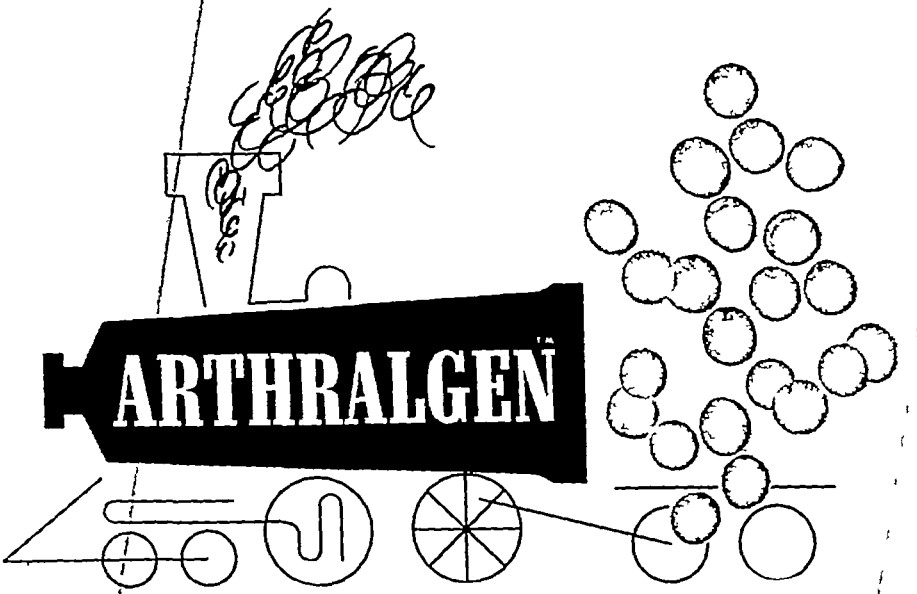
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Wide antibacterial activity, low toxicity and virtual elimination of renal complications distinguish the use of Gantrisin* 'Roche', a new and remarkably soluble sulfonamide Highly effective in urinary as well as systemic infections, Gantrisin does not require alkali therapy because it is soluble even in mildly acid urine More than 20 articles in the recent literature attest its high therapeutic value and the low incidence of side-effects Gantrisin is now available in 0 5 Gm tablets, as a syrup, and in ampuls Additional information on request

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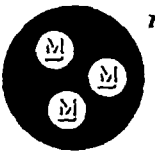
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ORETON* (Testosterone Propionate U S.P XIII) in oil for intramuscular injection in male hypogonadism and climacteric, functional uterine bleeding, inhibition of lactation and palliation of female breast carcinoma.



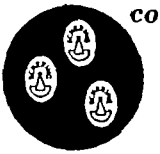
moderate and maintenance dosage

ORETON-M* Tablets (Methyltestosterone U S P XIII) by mouth in mild male climacteric, functional dysmenorrhea, premenstrual tension and relief of postpartum breast engorgement.



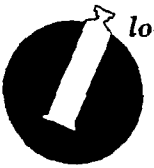
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convenient buccal administration

ORETON Buccal Tablets (Testosterone Propionate U.S P XIII in POLYHYDROL† base for intraoral administration when high dosage is desired and injection therapy is not feasible.



local application

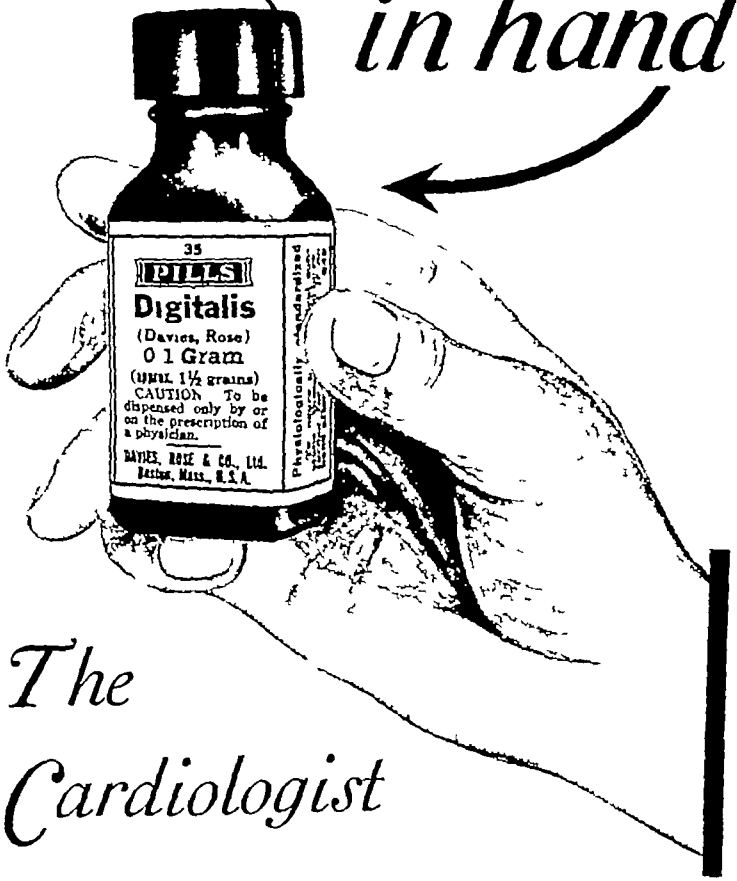
ORETON-M Ointment (Methyltestosterone U S P XIII) for percutaneous application in certain senile skin disturbances, especially those accompanied by pruritus.

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†POLYHYDROL trade mark of Schering Corporation

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The Cardiologist

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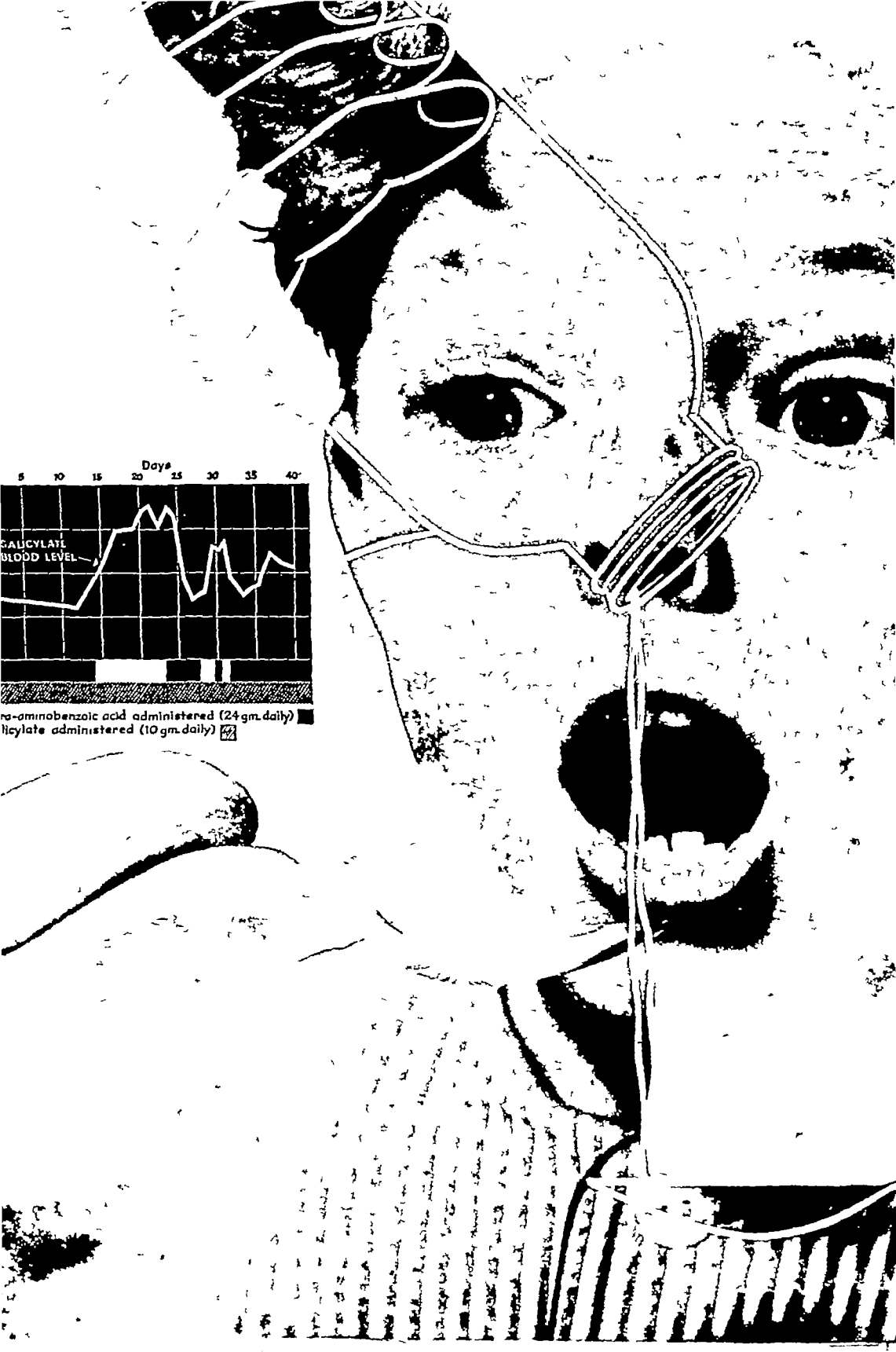
Being the powdered leaves made into
psychologically tested pills,
all that Digitalis can do, these pills will do

Trial package and literature sent to physicians on request

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Manufacturing Chemists, Boston 18, Massachusetts

D-14


Days
5
10
15
20
25
30
35
40
SALICYLATE
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ra-aminobenzoic acid administered (24 gm. daily)
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FORMULA. Sodium salicylate and *Para-aminobenzoic acid* (as sodium salt) of each (5 gr) 0 3 Gm In each 5 cc. (1 teaspoonful) of a chocolate flavored liquid or an enteric coated tablet

INDICATIONS Rheumatoid arthritis, acute rheumatic fever, fibrositis, gout, osteo-arthrit

DOSAGE: Average adult dose two teaspoonfuls or two tablets, three times daily Dosage for children proportional to age and severity of condition

A. H ROBINS CO , INC. RICHMOND 20, VIRGINIA

Ethical Pharmaceuticals of Merit since 1878

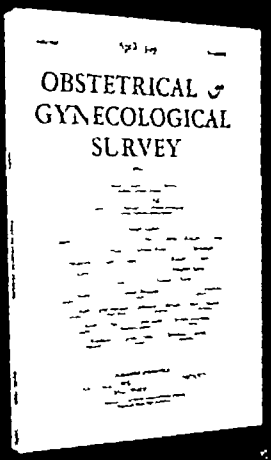
For higher salicylate blood levels on lower salicylate dosage—



Pabalate

TABLETS AND LIQUID

Robins


OBSTETRICAL & GYNECOLOGICAL SURVEY

"... these statistics are the best that have been reported. In fact, they couldn't be any better."

Editor: Obstetrical & Gynecological Survey
Vol. 4, No. 2: April, 1949: page 190

The statistics referred to are those reported by Dr. O. W. Smith in her article, "Diethylstilbestrol in the Prevention and Treatment of Complications of Pregnancy", in the November, 1948, issue of *The American Journal of Obstetrics and Gynecology*. This study of 632 pregnancies showed that, "under stilbestrol treatment the habitual aborter enjoys the same outlook for a living baby as does the average gravida. This is what I mean by saying that these statistics are the best that have been reported" [1]

This report affords additional evidence that the treatment of threatened and habitual abortions with **des** — Grant Process diethylstilbestrol — as pioneered by Karl John Karnaky[2], is the most effective treatment available.

The work of Silbernagel and Burt[3], and of Rosenblum and Melnikoff[4] showed that with diethylstilbestrol *68.4% more* cases were carried to term than with progesterone. In fact, it is now felt that the administration of progesterone may actually hasten abortion[5].

des is the only diethylstilbestrol prepared by the unique Grant Process of triple crystallization. Highly micronized **des** tablets are dissolved within a few seconds and are uniformly absorbed into the blood stream. **des** is specifically designed for the treatment of threatened abortion, habitual abortion and premature labor. The living results obtained with **des** are the best that have been reported. "In fact, they couldn't possibly be any better."

des IS BEST

REFERENCES

1 Editor Obs and Gyn. Survey 56 821 834, Nov 1948 2 Karnaky K J Estrogenic Tolerance in Pregnant Women. Amer Jr Obs. and Gyn 53 312 316 1947 3 Silbernagel W M and Burt, O P Ohio State Med Jr 39 430 May 1943 4 Rosenblum and Melinkoff Preservation of the Threatened Pregnancy with Particular Reference to the Use of Diethylstilbestrol West. Jr. Surg Obs and Gyn 55 597 603 Nov 1947 5 Hamblen E C Endocrinology of Woman Springfield, Ill. Charles E Thomas 1945 p 476

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why acne clears up so rapidly when you prescribe

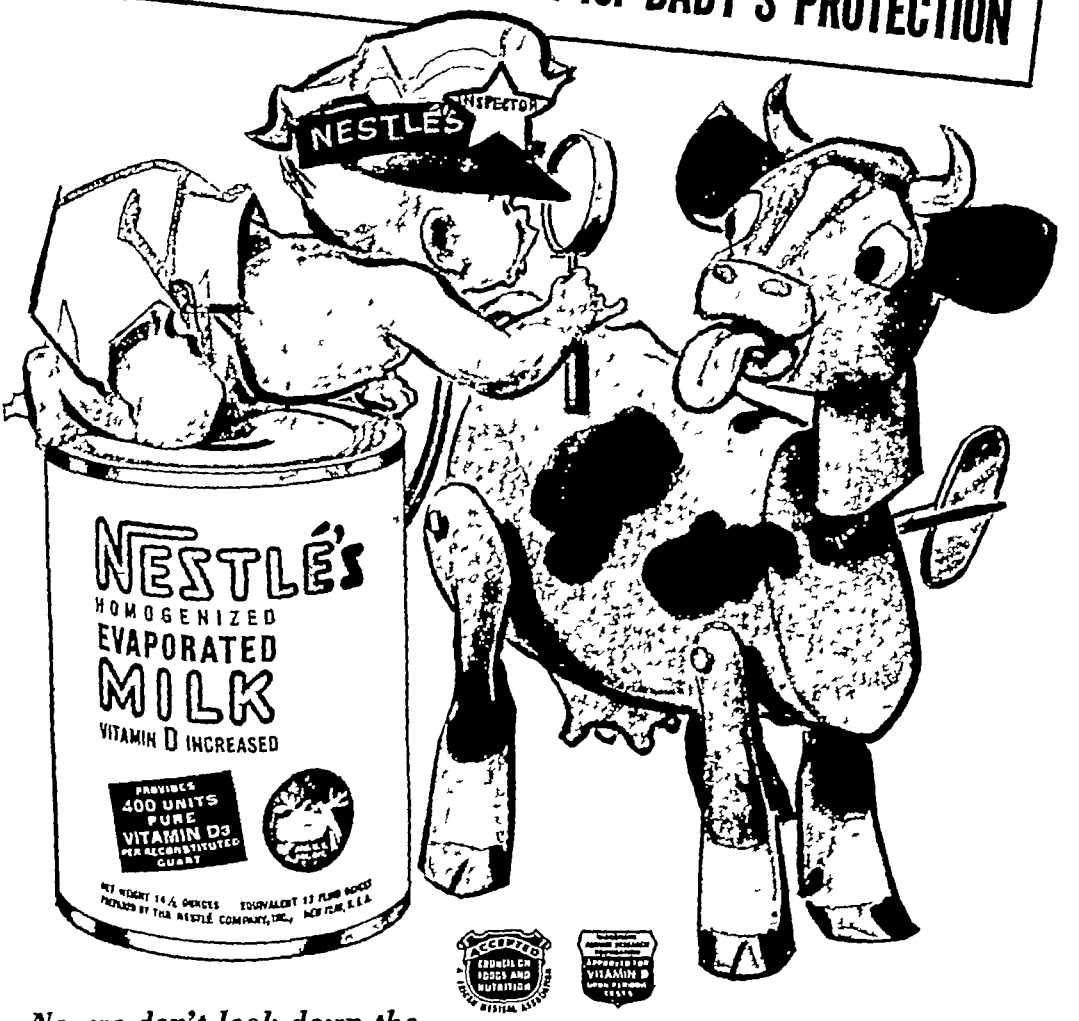
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ACNOMEL's rapid action is due, chiefly, to its remarkable vehicle This special vehicle, which embodies an entirely new principle, assures the effectiveness of ACNOMEL's time-tested active agents It has all the virtues of an oil-in-water emulsion, yet it is entirely free from wax, oil, or grease ACNOMEL is stable, grease-free, flesh-tinted It contains resorcinol, 2%, and sulfur, 8% Available, on prescription only, in specially-lined 1½ oz tubes.

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Acnomel *a significant advance, clinical and cosmetic,* **in acne therapy**

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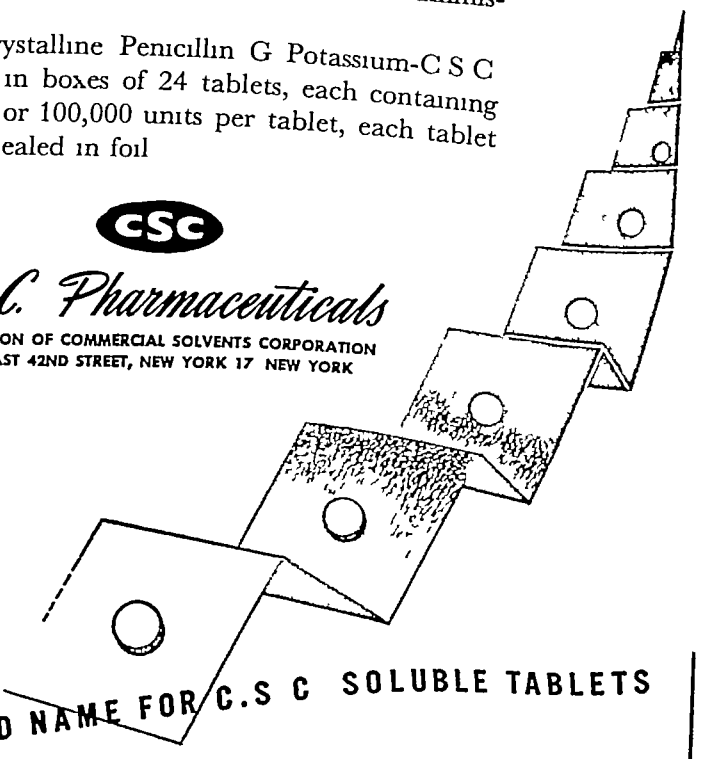
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THE NEW REGISTERED NAME FOR C.S C SOLUBLE TABLETS

not just resin
not just mucin

but RESMICON®

mucoprotective acid-adsorbent for peptic ulcer therapy

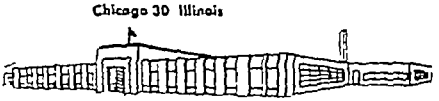
— relieves pain and promotes healing in peptic ulcer
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RESMICON'S anion exchange polyamine resin combats acidity by a new—non-chemical—principle It physically adsorbs acid radicals In the stomach resin rapidly inactivates HCl and inhibits pepsin with complete freedom from side effects

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Protecting
the
liver
in
certain
obstetric
complications

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•

• A recent paper[1] has reported the value of Meonine as an adjunct to protect the liver in "certain obstetric complications which have frequently ended fatally." In treating toxemia of pregnancy, the authors found that in addition to a specific action in preventing fatty infiltration to the liver Meonine appeared to exert a favorable influence on impaired renal function. 'Diuresis was the most promising feature following this special treatment. There was also a coincident favorable response in the diminution of edema."

• • • • • • • •

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MEONINE®

for
Liver
Damage

Wyeth®

1 Philpott, N W Hendelman M. and Primrose T Methionine in Obstetrics, Am Jr Obst. & Gynec. 57 125–142 Jan. 1949

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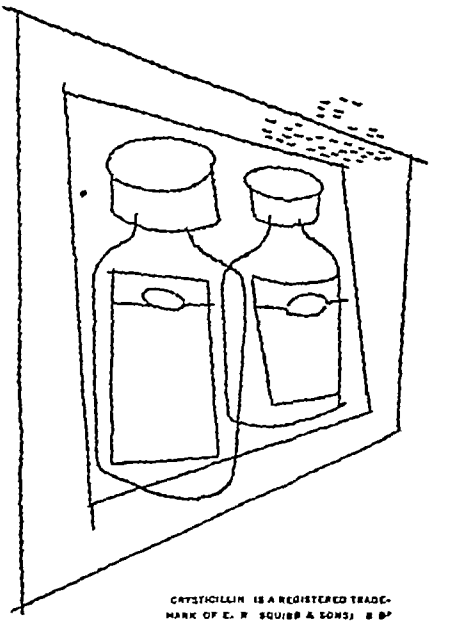
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SQUIBB Procaine Penicillin G in Aqueous Suspension

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SUPPLIED IN MULTIPLE DOSE VIALS,
1,500,000 and 3,000,000 units,
also in 300,000 unit B D
cartridge with *disposable* syringe



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Eskadiamer combines the 2 safest sulfonamides in 1 delicious fluid preparation

Leading clinicians have attested the greater safety of *the sulfonamides* in mixtures Now, Lehr finds that "sulfadiazine *and sulfamerazine* qualify for first and second place, respectively, as mixture components "

Federation Proceedings 8 315 (March) 1949

Eskadiamer, therefore, is especially welcome to the physician—not only because it is a sulfonamide mixture, but also because it is a mixture of equal parts *of the two safest sulfonamides in general use* sulfadiazine and sulfamerazine

Eskadiamer tastes so good that children—and many adults—much prefer ESKADIAMER to the usual bulky, sulfonamide tablets

Smith, Kline & French Laboratories, Philadelphia

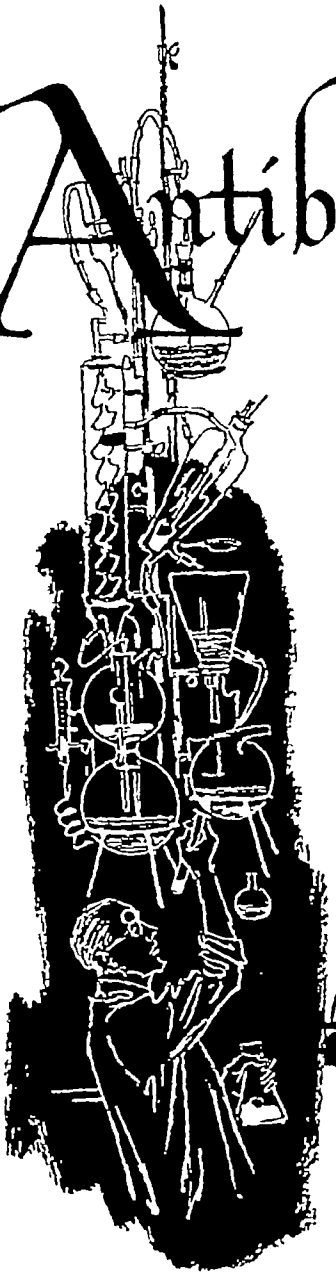


Eskadiamer

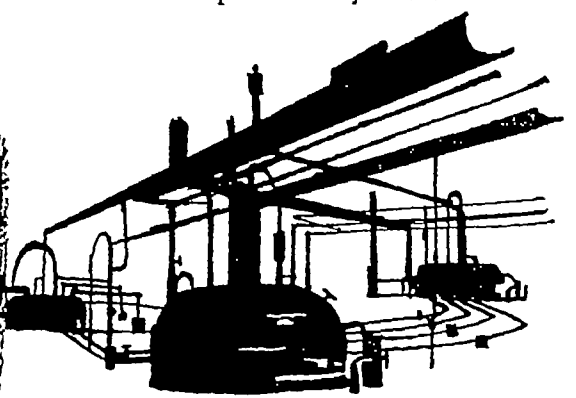
the delicious fluid preparation of sulfamerazine and sulfadiazine

Each 5 cc (one teaspoonful) of ESKADIAMER contains 0 25 Gm (3 86 gr) microcrystalline sulfamerazine and 0 25 Gm (3.86 gr) microcrystalline sulfadiazine—the dosage equivalent of the standard 0.5 Gm. (7 7 gr) sulfonamide tablet.

Antibiotics



For the past several years, *Lederle* has conducted extensive research in the production and isolation of antibiotics Scientific competition in this field has been keen and *Lederle* leadership has been achieved at the expense of a heavy investment in personnel, materials and money Two antibiotics are widely used throughout the world—aureomycin and penicillin The former is produced solely by *Lederle* Penicillin in many new forms, both oral and parenteral, has been pioneered by *Lederle*



Lederle research never comes to a standstill, but on the contrary, proceeds apace, and will in due course produce many additional weapons for man's fight against parasitic microorganisms

LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N Y

NOW *the common cold may be controlled*

CAUBREN® COMPOUND

cold combatant

containing

Chlorothen Citrate—25 mg } *long-acting antihistaminic of low toxicity*

Acetophenetidin —320 mg } *analgetic and antipyretic synergists*

Caffeine —32 mg }

caubren compound curbs colds by

* ***relieving symptoms***
* ***shortening duration***
* ***reducing contagion***

administration One to two tablets every 3-4 hours for at least 48 hours beginning as soon as possible after appearance of initial symptoms

available Bottles of 100 tablets

Whittier LABORATORIES DIVISION NUTRITION RESEARCH LABORATORIES, CHICAGO 30 ILLINOIS



The most "persuasive" oral germicide you can prescribe

1. Cēpacol persuades a wide range of oral bacteria to surrender within 15 seconds after contact[1]

2. Cēpacol's pleasant taste persuades your patients to use it

The rapid antisepsis[2] and soothing relief which Cēpacol brings to inflamed, sore throats are important. Along with the fact that Cēpacol is non irritating, non-toxic, and does not interfere with tissue healing Too, patients are extremely grateful to you for prescribing something so effective that also is so *pleasant* to use—as either gargle or spray

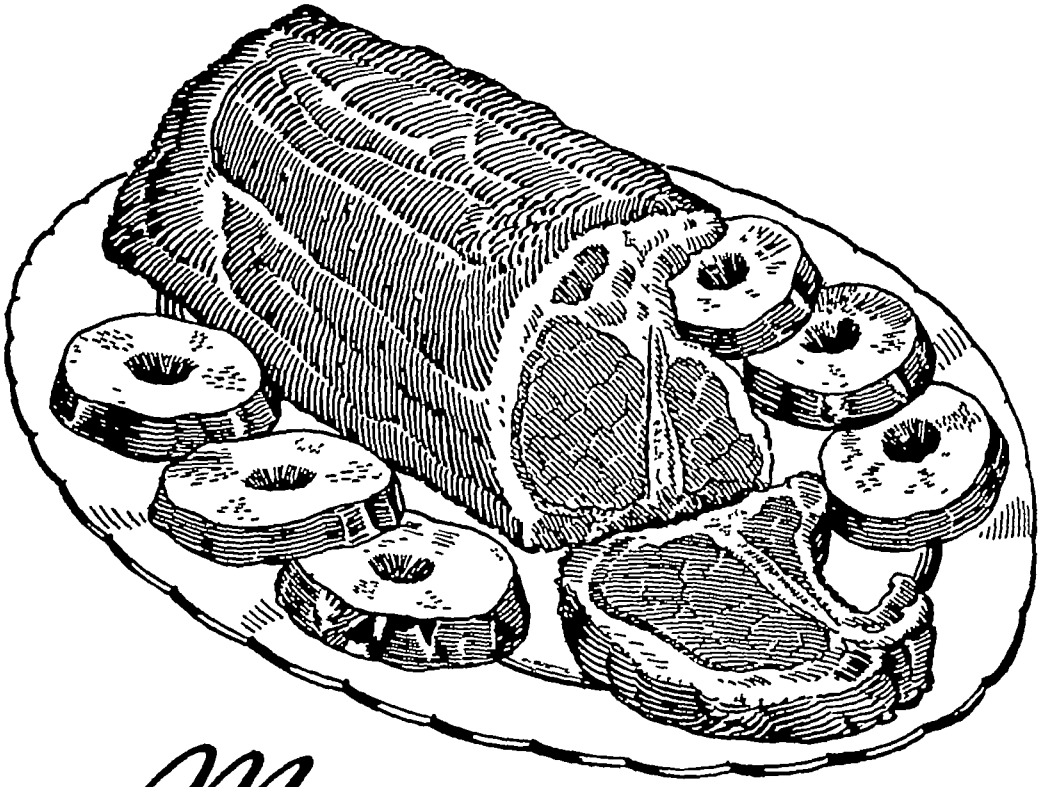
CĒPACOL®

The alkaline germicidal solution that works in partnership with saliva

Merrell
1828
CINCINNATI U S A

NOW AVAILABLE— Cēpacol Throat Lozenges[1] These convenient, pleasant-tasting lozenges, dissolved slowly in the mouth, provide a soothing, analgesic solution to relieve the dryness and irritation of sore throat

1. As shown in laboratory studies. 2. Cēpacol contains an effective germicidal detergent the quaternary ammonium salt Cetylpyra ⊗ Chloride 1:4000.



Meat...

Outstanding Value...

Outstanding Nutritional Benefits

Whether the pocketbook calls for economy or permits satisfaction of that urge for the fanciest cuts, meat gives your patients full value for their money Every cut and kind of meat supplies, *in abundance,* these essential nutrients

1 Biologically complete protein the kind which satisfies the requirements for growth and which is needed daily for tissue maintenance, antibody formation, hemoglobin synthesis, and good physical condition

2 The essential B complex vitamins, thiamine, riboflavin, and niacin

3 Essential minerals, including iron in particular

In addition to these tangible values, meat ranks exceptionally high not only in taste and palate appeal, but also in satiety value

The instinctive choice of meat as man s favorite protein food has behind it sound nutritional justification *

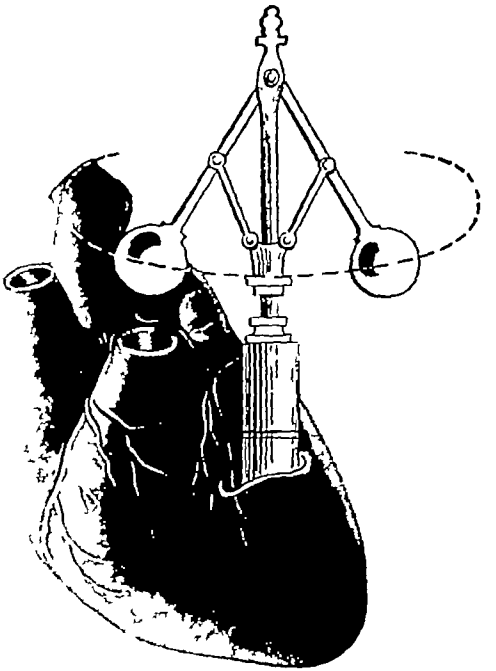
ACCEPTED COUNCIL ON FOODS AND NUTRITION

The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

*McLester J S. Protein Comes Into Its Own, J.A.M.A. *139* 897 (Apr 2,) 1949

American Meat Institute

Main Office, Chicago Members Throughout the United States



For governed maintenance .

When Nativelle isolated Digitaline, he eliminated the non-absorbable glycosides of the whole leaf thus virtually *ending untoward side reactions* in digitalization and maintenance Digitalization became a matter of hours, not days *Maintenance became positive* because absorption was complete and the uniform rate of dissipation afforded full digitalis effect between doses For this efficiency Digitaline Nativelle is a cardiotonic of choice among leading cardiologists the world over For the comfort and protection of your patients—for your own assurance—specify Digitaline Nativelle—*in full*—on your prescription.

Digitaline Nativelle

Chief active principle of digitalis purpurea* (digitoxin)

*Not an adventitious mixture of glycosides just the purified chief active principle.

Send for new brochure... Modern Digitalis Therapy Vanek Pharmacal Co., Inc. (Div of E. Fougera & Co., Inc.) 5 Vanek St., New York, N. Y.

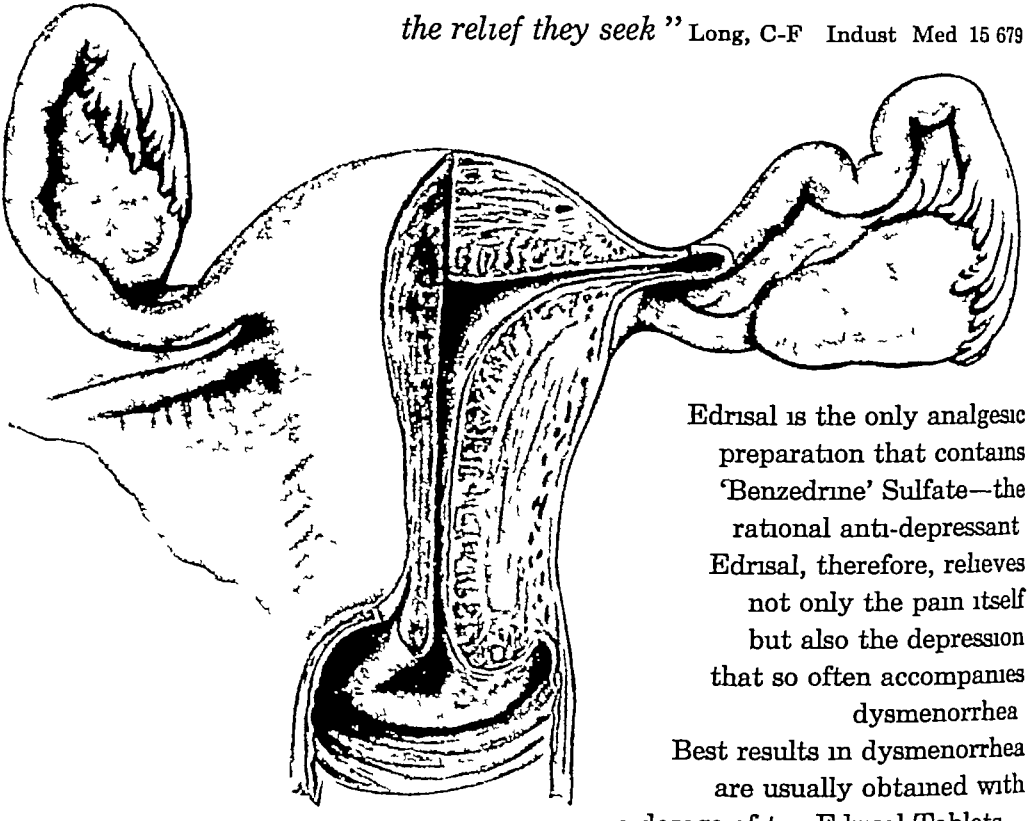
MAINTENANCE 0.1 or 0.2 mg. daily depending upon patient's response.

CHANGE OVER Prescribe 0.1 or 0.2 mg. of Digitaline Nativelle to replace maintenance doses of 0.1 gm. or 0.2 gm. of whole leaf.

RAPID DIGITALIZATION 1.2 mg. in equally divided doses of 0.6 mg. each at three-hour intervals.

dysmenorrhea

"We use [EDRISAL] *with the knowledge that 9 out of 10 sufferers will get the relief they seek"* Long, C-F Indust Med 15 679



Edrisal is the only analgesic preparation that contains 'Benzedrine' Sulfate—the rational anti-depressant Edrisal, therefore, relieves not only the pain itself but also the depression that so often accompanies dysmenorrhea

Best results in dysmenorrhea are usually obtained with a dosage of *two* Edrisal Tablets—repeated every three hours, if necessary

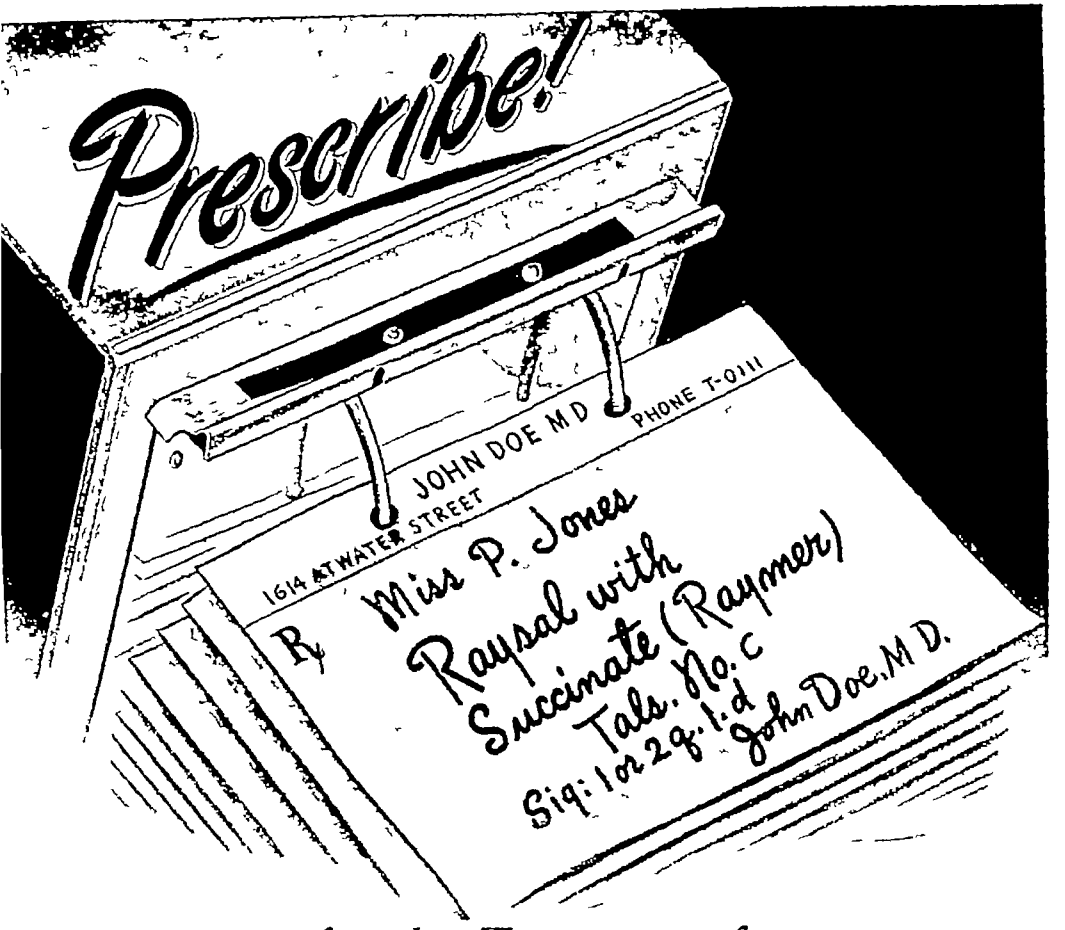
Edrisal

Each Edrisal* tablet contains Benzedrine* Sulfate (racemic amphetamine sulfate, S K F), 2 5 mg , acetylsalicylic acid, 2 5 gr , and phenacetin, 2 5 gr *Available on prescription only*

its dual action relieves pain, lifts mood

Smith, Kline & French Laboratories, Philadelphia

*'Benzedrine' and 'Edrisal' T.M Reg U S Pat Off



for the Treatment of

ARTHRITIS and RHEUMATISM

RAYSAL WITH SUCCINATE* The *ethical* salicylate-succinate formula Employs three principal ingredients—salicylate, iodine, and succinate designed to combine the almost specific antiarthritic and antirheumatic action of the salicylates, the stimulating and nutritionally corrective effects of iodine and the detoxifying action of succinic acid.

An ideal companion medication for other therapeutic measures employed in arthritis and rheumatism. RAYSAL WITH SUCCINATE will enhance the efficiency of RAY-FORMOSIL a safe and effective combination for use in your next case. Sample and literature will be sent upon request.

The Detoxified Salicylate Medicament

ENTERIC COATED TABLETS (SALOL)

Raysal (Representing 43% Salicylic Acid and 3% Iodine in Calcium-Sodium Phosphate Buffer Salt Combination)	5 grains
Succinic Acid	2 grains

*Manufactured by Raymer since 1925 utilizing succinates as drug detoxifying agents.

Available for office use and at your pharmacy on prescription

RAYMER

PHARMACAL COMPANY • PHILADELPHIA 34, PA

PHARMACEUTICAL MANUFACTURERS

Over a Quarter Century Serving Physicians

about the LARYNX, the PHARYNX... and CIGARETTES

Here is the simple reason why many leading nose and throat specialists suggest "Change to Philip Morris."*

The sensitive tissues of the upper respiratory tract are often affected adversely by the irritants in the smoke of ordinary cigarettes

Philip Morris, on the other hand, are specifically processed to *minimize* such irritants . . the only one of all leading *cigarettes to offer this advantage*

Why not give your patients the benefit of this proved** superiority . . . why not suggest Philip Morris Many leading doctors make it a point to say to their patients who smoke . . . *"Change to Philip Morris Cigarettes"*

PHILIP MORRIS

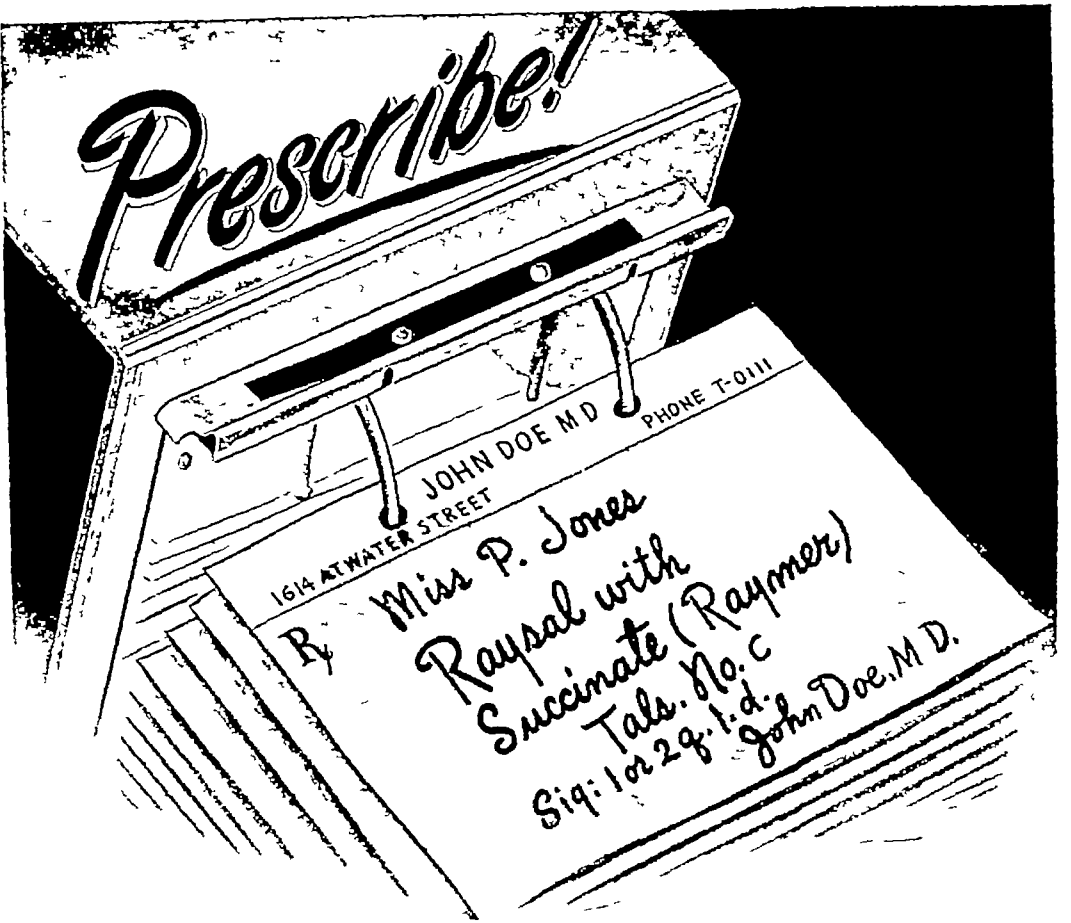
Philip Morris & Co., Ltd , Inc
119 Fifth Avenue, New York

ARE YOU A PIPE SMOKER? We suggest an unusually fine new blend—COUNTRY DOCTOR PIPE MIXTURE Made by the same process as used in the manufacture of Philip Morris Cigarettes

*Completely documented evidence on file

**Reprints on request:

Laryngoscope Feb 1935 Vol XLV No 2 149 154; Laryngoscope, Jan 1937 Vol XLVII No 1 58-60; Proc Soc Exp Biol and Med , 1934 32 241; N Y State Journ Med Vol 35 6-1 25 No 11, 590-592



for the Treatment of

ARTHRITIS and RHEUMATISM

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Raysal (Representing 43% Salicylic Acid and 3% Iodine in Calcium Sodium Phosphate Buffer Salt Combination)	5 grains
Succinic Acid	2 grains

*Manufactured by Raymer since 1925 utilizing succinates as drug-detoxifying agents.

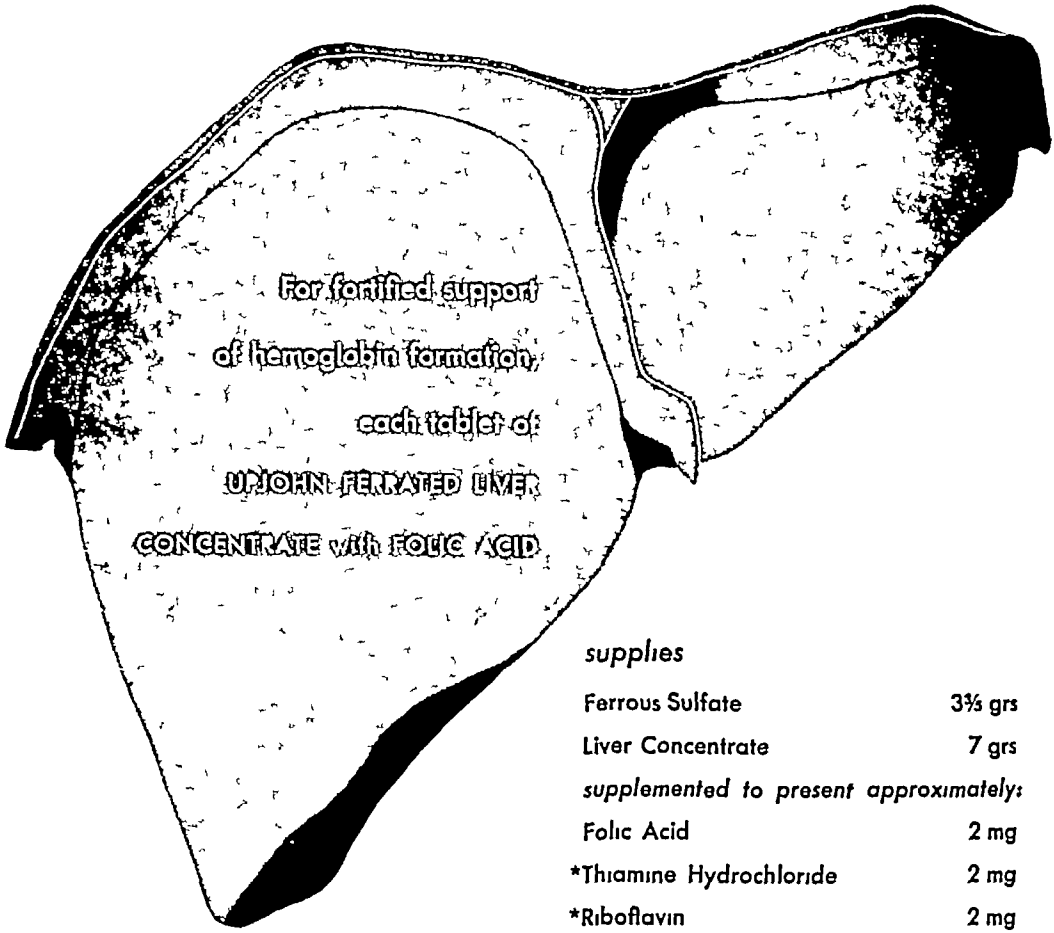
Available for office use and at your pharmacy on prescription

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PHARMACEUTICAL MANUFACTURERS

Over a Quarter Century Serving Physicians



supplies

Ferrous Sulfate	3⅓ grs
Liver Concentrate	7 grs
supplemented to present approximately:	
Folic Acid	2 mg
*Thiamine Hydrochloride	2 mg
*Riboflavin	2 mg
*Nicotinamide	10 mg

**adjusted to a higher potency than that present in Upjohn Ferrated Liver Concentrate*

UPJOHN FERRATED LIVER CONCENTRATE WITH FOLIC ACID

TABLETS *available in bottles of 100 and 1000*

Upjohn
KALAMAZOO 99 MICHIGAN

FINE PHARMACEUTICALS SINCE 1886



Topical oropharyngeal chemotherapy of proven effectiveness and safety

Numerous investigators, over a number of years, have demonstrated that the clinical use of Sulfathiazole Gum is most effective in local control of infections of the mouth and throat—and without toxic side-effects

Nieman,* in an eight-month controlled study of the prophylactic use of Sulfathiazole Gum, reports a measurable decrease in the incidence of colds, as well as primary and irritational pharyngitis

SAFETY

The same author* states "It is worthy of note that the mouths of over 100 persons were exposed to the drug in concentrated form daily for eight months, *with no untoward effects*"

White's

Sulfathiazole Gum

SAFE, TOPICAL CHEMOTHERAPY

Supplied in packages of 24 tablets—3¾ grs. (0.25 Gm) per tablet—sanitaped in slip-sleeve prescription boxes.

White Laboratories, Inc., Pharmaceutical Manufacturers Newark 7 N J

*Nieman I S Prophylactic Value of Sulfathiazole, Arch. Otolaryngol 47 158 (Feb) 1948

Free Flow with



Heparin/ Pitkin Menstruum

'WARNER'

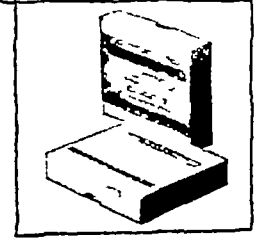
an anticoagulant preparation with prolonged action for the prevention and treatment of thromboembolic disorders

HEPARIN/PITKIN MENSTRUUM 'Warner' is a safe and clinically established means of providing prolonged anticoagulation action in the body

One subcutaneous injection of HEPARIN/PITKIN MENSTRUUM 'Warner' is usually sufficient to increase the blood coagulation time for a period of 24 to 48 hours without the necessity for the cumbersome, discomforting and time consuming procedures usually required when maintaining blood fluidity in thromboembolic disease

Heparin/ Pitkin Menstruum

'WARNER'



is available in 200-mg and 300-mg ampuls for subcutaneous injection, cartons of 6 ampuls each, with or without vasoconstrictors

WILLIAM R. WARNER & CO., INC.

NEW YORK ST LOUIS LOS ANGELES



Chronic osteomyelitis of *12 years' duration* after compound fractures of leg 14 surgical procedures failed to close the cavity Pain and foul smelling discharge caused patient to request amputation.



Treatment with Chloresium brought progressive closure of the cavity Purulent drainage and odor stopped Pinch grafts of granulation tissue at base were successful and cavity closed completely

CHLOROPHYLL HEALED

where other methods of treatment failed

● The case shown above is one of a large series which resisted other methods of treatment—until Chloresium therapeutic chlorophyll preparations were used The published record* shows that the great majority of them not only *responded rapidly* to Chloresium's chlorophyll therapy, but *healed completely* in a relatively short time

Faster healing of acute cases

Chloresium has been equally effective in acute wounds and burns Faster healing, less infection, less scar tissue formation have been obtained. In addition, Chloresium provides quick deodorization of foul smelling conditions

This new approach to prompt, effective healing is due to Chloresium's proved ability to stimulate normal cell growth It lets you give *positive help* to tissue in repairing itself Try it on your most resistant case—it is completely nontoxic, bland and soothing

Chloresium

REG U S PAT OFF

Solution (Plain) Ointment, Nasal and Aerosol Solutions

Ethically promoted—at leading drugstores

*BOEHME, E. J	The Treatment of Chronic Leg Ulcers	The Lahey Clinic Bulletin, 4.242 (1946)
BOWERS, WARNER F	Chlorophyll in Wound Healing and Suppurative Disease	Amer J Surgery LXXIII.37 (1947)
CADY JOS. B and MORGAN W S	Treatment of Chronic Ulcers with Chlorophyll	Amer J Surgery LXXV 4 (1948)
CARPENTER, E B	Chlorophyll Therapy in 127 Cases of Chronic Osteomyelitis and Ulcers	Amer J Surgery 77 162(1949)
JOHNSON HAROLD M	Dermatologic evaluation	Arch. Dermat. & Syph. 57.348 (1948)
LANGLEY W D and MORGAN W S.	Chlorophyll in the Treatment of Dermatoses	Penn. Med. Journal, Vol. 51 No. 1 (1948)

NEW—Chloresium Dental Ointment and Tooth Paste now make chlorophyll therapy available for the treatment of Vincent s infections gingivitis and other periodontal diseases

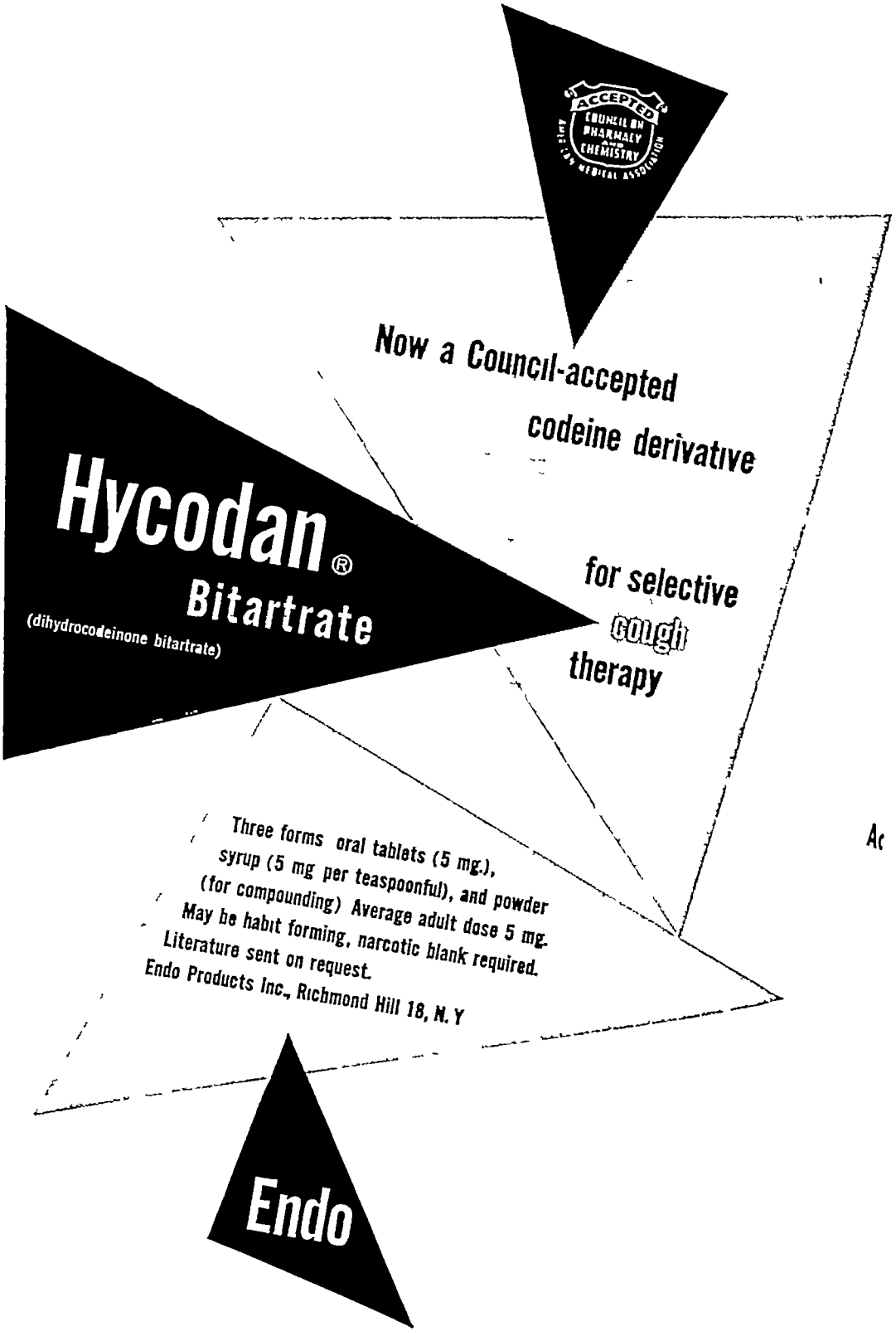
FREE—CLINICAL SAMPLES

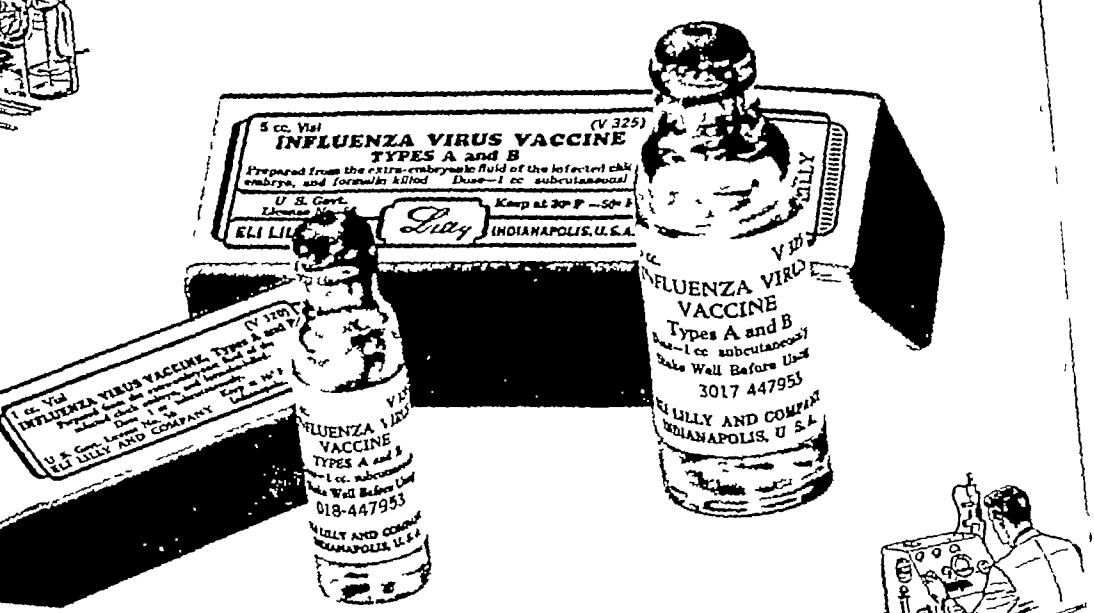
RYSTAN CO , INC Dept. SG-6.
7 N MacQuesten Pkwy Mt. Vernon N Y
I want to try Chloresium on my most resistant case. Please send me, without obligation clinical samples and complete literature.

Dr._____

Address_____

City_____ Zone____ State____


ACCEPTED
COUNCIL ON PHARMACY AND CHEMISTRY
AMERICAN MEDICAL ASSOCIATION
Now a Council-accepted
codeine derivative
Hycodan®
Bitartrate
(dihydrocodeinone bitartrate)
for selective
cough
therapy
Three forms oral tablets (5 mg.),
syrup (5 mg per teaspoonful), and powder
(for compounding) Average adult dose 5 mg.
May be habit forming, narcotic blank required.
Literature sent on request.
Endo Products Inc., Richmond Hill 18, N. Y
Endo



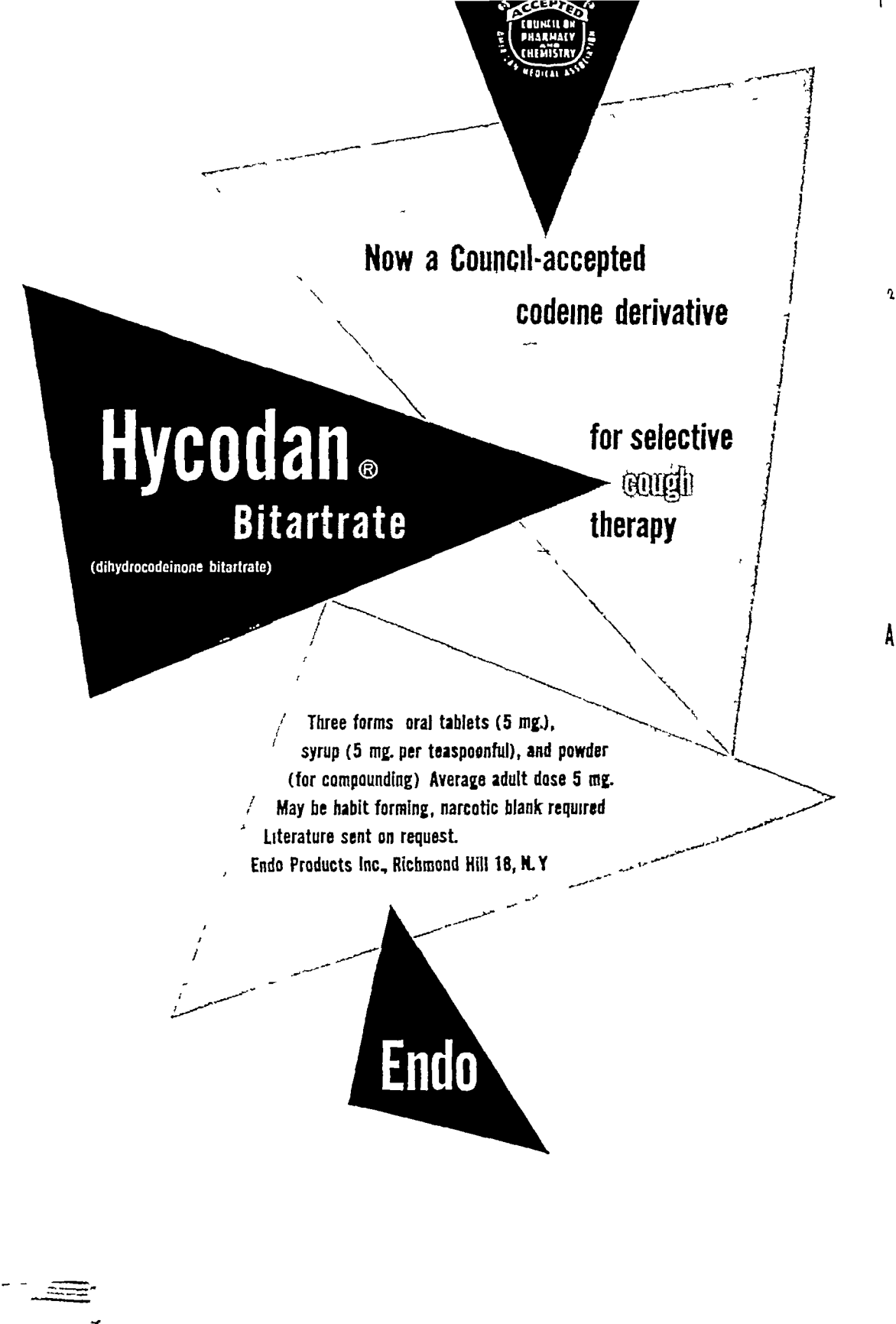
tent on Prevention

The absence of effective drugs with which to treat influenza leaves prevention as the physician's only alternative In a high percentage of cases, immunity results from a single 1-cc subcutaneous injection of Influenza Virus Vaccine, Types A and B, Lilly To insure maximum protection, the fall inoculation should be followed in three or four months by a second injection For more complete information, write for a copy of *Influenza Virus Vaccine, Types A and B* (A-1341A)



Lilly

ELI LILLY AND COMPANY, INDIANAPOLIS 6 INDIANA, U S A


ACCEPTED
COUNCIL ON PHARMACY AND CHEMISTRY
Now a Council-accepted codeine derivative
Hycodan®
Bitartrate
(dihydrocodeinone bitartrate)
for selective cough therapy
Three forms oral tablets (5 mg.), syrup (5 mg. per teaspoonful), and powder (for compounding) Average adult dose 5 mg.
May be habit forming, narcotic blank required
Literature sent on request.
Endo Products Inc., Richmond Hill 18, N.Y
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VOLUME 49 NOVEMBER 1, 1949 NUMBER 21

Editorials

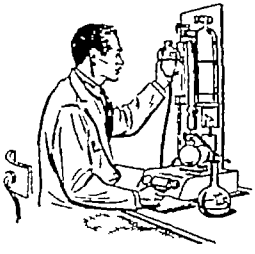
Legislative Home Work Needed, II

It is not the purpose of this editorial series to scold or to point out sins of omission It is proposed, however, to indicate the weakness of our legislative efforts, to emphasize the futility of competitive "lobbying" activities, and to urge intensive activity in county areas with respect to such legislation as seems desirable This implies a radical change in the point of view of many doctors who have held themselves aloof from politics or political affairs It has resulted in half-hearted, indolent gestures for the most part, with a certain fear of being labeled a "medical politician" This attitude has discouraged many able doctors from taking an active interest in legislative work

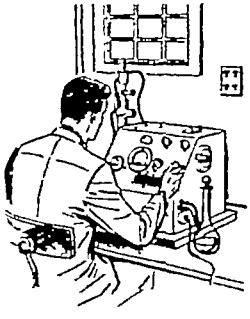
In a few of our county societies the legislative committees have done excellent work In a number of others there has been little or no work done by these committees It would appear that if we are to be successful the legislative committee in all county societies must be considered as one of the most important of that county society Members of the legislative committee in a county society should be chosen because of interest in such work, a willingness to work in this field, and should be kept on the committee sufficiently long to become thoroughly familiar with all the procedures connected with the activities of this group The chairman should be a physician who has served an apprenticeship through several years of membership on this committee The chairman and members of the committee should be appointed sufficiently well in advance, or carried over from the year preceding, *so that new committees are not appointed at the beginning of or during a legislative session* when it is too late for that committee to function properly

It is found that many times members of these committees do not know the procedures









EXPERTS WHO TREAT STUFFY NOSES

A quick, deft manipulation and the pledget of cotton is securely in place, a foreign body is safely removed from an eye, or a tonsil is adroitly snared Specialists in eye, ear, nose, and throat practice take for granted the high degree of skill acquired from day-to-day experience

Behind the scenes, in the medical research laboratories of the nation, groups of skilled scientists are at work on the doctor's problems Can this sympathomimetic drug be made more effective, less toxic? Will altering the chemical structure of an antihistaminic compound remove the undesirable side-effects without destroying its desirable qualities? Can this local anesthetic be improved? These are only a few of the day-to-day concerns which challenge the skills of the specialists representing all branches of medical science at the Lilly Research Laboratories The result of their findings is reflected in the continuing flow of new and better preparations destined for the patient via the physician's prescription

Lilly

LILLY SPECIALISTS SERVE THE MEDICAL PROFESSION

It is thought that if more attention were given and progress were made in this direction, the results of our efforts in legislation would be improved

The A M A Assessment in New York State

We are informed that, in the matter of payment of the A M A assessment by states, New York ranks forty-seventh at the moment Count the white stars in the blue field of the American flag and think about that rank Should the Empire State be in that position? When it is remembered that three fifths of the money raised by the assessment has been allocated to a national campaign of public education at a critical time in the medical history of the nation, the physicians of the State might be said to be enthusiastically indifferent to it, from the record, or perhaps dynamically inactive, or again just forgetful

No physician can feel proud of such a record, for, after all, he is a citizen of this State and presumably likes to consider it a leader, not a tailender His personal share of the voluntary assessment, $25, twelve and one-half cartons of cigarets, is not a backbending burden in our view, and if it were, does he not owe that much to his profession?

We feel certain that forgetfulness is the leading cause for failure of New York State physicians so far to send in their payments In a busy life it is easy to forget But now that we have reminded you, jogged your memory, won't those of you who have not already done so, kindly repair the oversight *at once?* The year is drawing to a close, and it is important that these funds be in the hands of the A M.A immediately Act now, if this reminder applies to you If it does not, take it upon yourself to speak to your friends at the next staff meeting or county society meeting They may not have seen this reminder Will you who read this assist us by acting as *remindermen?* The matter is urgent

Send your check for $25, payable to the American Medical Association, to the State Society office, 292 Madison Avenue, New York 17, New York

We find it hard to believe that New York State physicians have so little pride of accomplishment as to neglect this appeal

Current Editorial Comment

The Hospital Bond Issue On November 8 next there will be submitted to the voters of this State an amendment to the State Constitution which would permit the City of New York to raise $150,000,000 through the medium of a bond issue for the purpose of reconstructing and rehabilitating its municipal hospital system Although the money is to be spent on a local project, the electorate of the entire State must decide the question There can be no doubt as to the necessity for carrying out this project Many of the city institutions are very antiquated, they are shockingly overcrowded, they are a public hazard since they are not all fireproof and lack other modern safety and functional features

It is to be hoped that the citizenry of the entire State will develop a sufficient interest in this project to cast their votes in favor The metropolis of the western world should be able to point with pride to its hospital facilities, for they would constitute a "medical center," the influence of which extends far beyond mere municipal boundaries

The project has received wide endorsement, and the physicians of the State should lend their aid in achieving its purposes "Be a good neighbor"

Step by Step "The University Hospitals have been a source of considerable complaint in many areas because they engage in the practice of medicine That is not news Some of our very good hospitals for many years have accepted patients and taken payments for their services and applied those payments to the cost of their medical schools and their teaching staffs,

and are not sufficiently well acquainted with legislative matters to carry out their duties, until the time for such activities has passed The chairman and members of this legislative committee should acquaint all other members of the county society with legislative matters and enlist their support, not only in public education but by contact with the senators and assemblymen representing their counties They should make it known to the legislators from their counties why they are in favor of or opposed to certain legislative matters, and be thoroughly acquainted with their attitude on these questions The legislators themselves would welcome such contacts

It has long been the history of legislative matters in which the medical profession has been interested that there is a lack of unity in the profession in its efforts The legislators have said, "If you get together and decide on what you want, and if it is for the public good, we will put the matter through the Legislature" All too often, even on bills mandated by the House of Delegates, it is found that these bills are not supported, and may even be opposed, by members of the profession It cannot be expected that efforts on such legislation will be successful if there is a difference of opinion in or opposition from members of our own group This unity of support for desired legislation is most important

It is also thought that we should give more careful consideration to the type of legislation that we request to be introduced It does not improve the standing of the medical profession before members of the Legislature continually to be requesting the introduction of legislation that has no chance of being passed We could strengthen our program if we made a thorough study of all proposals being considered for introduction in the Legislature, by thoroughly working out their chances of being passed, and the proper form of presentation *before* such introduction It is thought we would improve our public relations and the attitude of the public and the legislators if for some time we did not request the introduction of matters which are strongly opposed by the administration or State departments We can surely improve our public relations by foregoing the introduction of any legislation which at this time could be considered as prompted by the selfish interest of the medical profession or the individual doctor

It has been recognized, especially in connection with our present educational campaign, that the public relations of the medical profession must be improved This includes not only the attitude of the public but the attitude of legislators in our State Legislature as well as in Congress It is found that many legislators who individually have great respect for physicians with whom they are acquainted, and for the medical profession as a whole, are not inclined to favor legislation desired by the medical profession One of the reasons for this attitude on the part of the legislators is the influence not only of the attitude of the public but the lack of unity in the medical profession, also the disinterest of the medical profession in political matters, and the apparently selfish stand presented either for or against certain types of legislation Legislators are not willing to support the medical profession in its desire for change or amendments to the laws in these times when it would appear that it would be purely for the financial benefit of members of the profession They will not support legislation for certain groups of the profession, when such legislation is opposed by other members of the profession, unless it appears to be distinctly for the public good or follows the popular trend of thought The legislators are not impressed by demands in connection with legislation from the doctors, because members of the medical profession are notoriously weak in political activities and neglectful of the support of party or candidates A legislator will listen to an organization that works more consistently in these fields quicker than he will to a group like the medical profession which lends him practically no support It is suggested, then, that members of the county societies make more effort to become acquainted with their legislators and their attitudes, and assist when possible in party and election matters This is quite a distinct change from the custom of the State Society and members of the profession of former years

It is thought that if more attention were given and progress were made in this direction, the results of our efforts in legislation would be improved

The A M A Assessment in New York State

We are informed that, in the matter of payment of the A.M.A assessment by states, New York ranks forty-seventh at the moment Count the white stars in the blue field of the American flag and think about that rank. Should the Empire State be in that position? When it is remembered that three fifths of the money raised by the assessment has been allocated to a national campaign of public education at a critical time in the medical history of the nation, the physicians of the State might be said to be enthusiastically indifferent to it, from the record, or perhaps dynamically inactive, or again just forgetful

No physician can feel proud of such a record, for, after all, he is a citizen of this State and presumably likes to consider it a leader, not a tailender His personal share of the voluntary assessment, $25, twelve and one-half cartons of cigarets, is not a backbending burden in our view, and if it were, does he not owe that much to his profession?

We feel certain that forgetfulness is the leading cause for failure of New York State physicians so far to send in their payments In a busy life it is easy to forget But now that we have reminded you, jogged your memory, won't those of you who have not already done so, kindly repair the oversight *at once?* The year is drawing to a close, and it is important that these funds be in the hands of the A M A immediately Act now, if this reminder applies to you If it does not, take it upon yourself to speak to your friends at the next staff meeting or county society meeting They may not have seen this reminder Will you who read this assist us by acting as remindermen? The matter is urgent

Send your check for $25, payable to the American Medical Association, to the State Society office, 292 Madison Avenue, New York 17, New York

We find it hard to believe that New York State physicians have so little pride of accomplishment as to neglect this appeal

Current Editorial Comment

The Hospital Bond Issue On November 8 next there will be submitted to the voters of this State an amendment to the State Constitution which would permit the City of New York to raise $150,000,000 through the medium of a bond issue for the purpose of reconstructing and rehabilitating its municipal hospital system Although the money is to be spent on a local project, the electorate of the entire State must decide the question There can be no doubt as to the necessity for carrying out this project Many of the city institutions are very antiquated, they are shockingly overcrowded, they are a public hazard since they are not all fireproof and lack other modern safety and functional features

It is to be hoped that the citizenry of the entire State will develop a sufficient interest in this project to cast their votes in favor The metropolis of the western world should be able to point with pride to its hospital facilities, for they would constitute a "medical center," the influence of which extends far beyond mere municipal boundaries

The project has received wide endorsement, and the physicians of the State should lend their aid in achieving its purposes "Be a good neighbor"

Step by Step "The University Hospitals have been a source of considerable complaint in many areas because they engage in the practice of medicine That is not news Some of our very good hospitals for many years have accepted patients and taken payments for their services and applied those payments to the cost of their medical schools and their teaching staffs,

and are not sufficiently well acquainted with legislative matters to carry out their duties, until the time for such activities has passed The chairman and members of this legislative committee should acquaint all other members of the county society with legislative matters and enlist their support, not only in public education but by contact with the senators and assemblymen representing their counties They should make it known to the legislators from their counties why they are in favor of or opposed to certain legislative matters, and be thoroughly acquainted with their attitude on these questions The legislators themselves would welcome such contacts

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President's Page



I propose to use the unofficial medium of the "President's Page" from time to time to express some personal opinions to the members of the Medical Society of the State of New York It is hoped that these might invoke discussion and have some value as we continually work toward our common goal of professional dignity, competence, and independence

The practice of medicine is no longer the simple performance of an individual physician caring for an individual patient, important as that item still is It ranges far beyond this, and includes not only the wonderful activities of our public health services and the research and teaching functions of our medical schools and great clinics, but also the various phases of medicine in which the government itself is engaged It is the physicians who are the main actors on this stage It is they who are able to translate the results of research into the clinical practice of medicine They are the indispensable ones around whom the whole elaborate machinery revolves Great numbers of physicians are engaged in these activities The practice of medicine to them is not the same as it is to the private individual practitioner It is more abstract and less personal They are physicians, however, and members of our great profession

Our profession, as you well know, has been and is now under attack from many sources In my opinion, this attack will be long sustained, no member of the profession can stand aloof and refuse to take an active part in the ensuing engagement

It is my opinion, also, that neither the public nor the profession will gain if physicians are regimented We will all lose in those things we value most as citizens of a free country —independence and individual dignity So I appeal to all doctors, irrespective of the capacity in which they function, to be alert, and to be with our profession wholeheartedly in its legitimate struggle to maintain and further the public interest with respect to health matters and the practice of medicine We must cooperate or perish

There is comparative quiet at present in the propaganda on the part of those who would regiment the medical profession, but it would be a great mistake were we lulled into inactivity because of this

I can assure you that the proponents of compulsory health insurance are not inactive—on the contrary, I believe that they are intensifying their efforts We must therefore intensify our own educational activities and never miss an opportunity to strike a blow for the ideals of the medical profession, either by private counsel or by public speech We should, in addition, endeavor to have our efforts translated into the writing of letters of protest to our senators and congressmen in Washington, when measures we feel are not in the public interest are under discussion

This is one phase of the matter and a direct one The other is not so direct

It may be that our antagonists are not so hopeful as they were of initiating compulsory health insurance in one great and sudden move We must be prepared to recognize and combat other moves that might be made that would ultimately end up in compulsory health insurance

We are endeavoring to maintain a high quality of medical care and service With our present number of trained physicians and nurses, compulsory health insurance cannot be established without a disastrous lowering of the quality of care and service It is not selfishness on our part when we oppose compulsory health insurance It would increase the quantity but lower the quality of medical service, and the latter would be repugnant to our people They are entitled to and should have the best medical care possible

but in some areas that has been a subject of violent discussion and unfavorable reaction" [1]

Now that the president of the A M A has seen fit to comment in the pages of its *Journal* upon this controversial subject, we feel free to venture a few observations For many years some of the more rigid moralists in this country have been perplexed by the spectacle of governments doing things that no private citizen would think of doing, or would be permitted to do if he did It has become increasingly clear that it is not always what is done but who does it that determines the morality of a given act

The interlocking directorate between hospitals and medical schools is a natural and long established fact Fifty years ago doctors figuratively taught medicine with one hand and practiced it with the other Professors found the time and pains that teaching cost them were perhaps well repaid by the prestige of their titles and by the generations of students that grew up to be "feeders" to them

But then a grave question arose If the Departments of Anatomy and Physiology, for example, demanded the services of full-time, salaried professors, it was unthinkable that the dignity of the Departments of Medicine and Surgery should not command similar selfless full-time service

But then the problem of how the most brilliant representatives of those subjects could be weaned away from the rewards of private practice presented itself Some astute hospital trustee recognized a fact that must have been long evident to the majority of the discerning Doctors were not like most other people There was a curious, impractical Messianic streak in some of them They lived, some of them, in a world apart, yes, that was it, in a world of their own, like children playing in a nursery!

There was the nub of the problem Why not give them the most attractive nursery imaginable, fill it with the most modern and expensive toys, send them around the country to medical meetings, give them their offices and secretaries, a month's vacation with pay, and finally, give them a modest salary to live on? "Clean living and high thinking" should be their motto The scheme, in many cases, worked very well.

But then an obstacle arose Patients flocked to the professors' reputations in such numbers that there seemed to be a danger that the professors' attention might be somewhat deflected from the prime target of their careers teaching On the other hand, no one should conscientiously deprive the suffering public of the services of such learned, scientific behemoths

What to do? Up came another hypothetical trustee with a brilliantly simple solution Anything that the doctor earned over and above his salary would be collected by the hospital or university, and turned into the funds of his department Some sensitive spirits among the professors complained that the rising flood of private practice, whether or not they got the rewards from it, impinged seriously upon the time that they would like to be giving to research But did they not have all the young assistants any man could ask for to carry out the humdrum details of research, once they had posed the problem? Surely no professor could be of so niggardly a nature as not to wish to do his best to support his own department! A noteworthy solution, nearly approaching perpetual motion

It works extraordinarily well Of course, there are occasional reorganizations, inevitable for progress, and amalgamations between hospitals and universities because of which duplicating facilities must be eliminated In such cases, of course, a few doctors who thought themselves secure for life find themselves again at the bottom of the ladder But what would you? The juggernaut of progress will always claim its victims

We recently saw a letter which represented the apotheosis of this system It was written to a staff member of many years standing in one of our oldest and most respected institutions It was about to merge with another hospital, but before the final step was taken the trustees would like to know how much the doctor would contribute personally to the maintenance of the hospital as a separate institution

We hope we are not old fashioned or fusty, but we should like our readers to consider carefully whether or not they think the picture here drawn can be described as that of "Free Enterprise in the Practice of Medicine"

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[1] Sensenich R L. J A M A 140 612 (June 18) 1949

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In times like these criticism becomes rampant and all kinds of panaceas are suggested. Remedies are confidently proposed, for which there is no guarantee offered except that the person who prescribes the remedy says that he is sure it will work But there is no virtue in change unless for the better, and when, in our best judgment, any proposed change in the system of distribution of medical care would react against the welfare of the public, it is our duty to proclaim our views I think it is no distortion of the truth to say that the role of the physician in modern society also has the attributes of a public trust We are the trustees of society for preservation of health and the cure of disease, and we have not been recreant to that trust We shall continue to cooperate with all agencies, both public and private, interested in improving the health of our people It is our aim today, tomorrow, and always to strive for improvement of the quality of medical care and the better distribution of medical care to all our people That shall always be our goal

As a State Society and as individual members of a profession whose roots go back to antiquity, we will continue to endeavor to serve humanity to the best of our ability Our people's health, as well as the excellence of our hospitals, our medical schools, our institutions of research, and our public health agencies, are the envy of the world But we are not satisfied—will never be satisfied—as long as there is the possibility of further progress The status quo has no place in the vocabulary of the medical profession The nation's health is our responsibility Come what may, we shall not fail the people

JOHN J MASTERSON, M D

PRIZE ESSAYS

The Merrit H Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 8, 1950, in New York City

The Lucien Howe Prize of $100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology The author need not be a member of the Medical Society of the State of New York.

The Merrit H Cash Prize of $100 will be given to the author of the best original essay on some medical or surgical subject. Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State

The following conditions must be observed

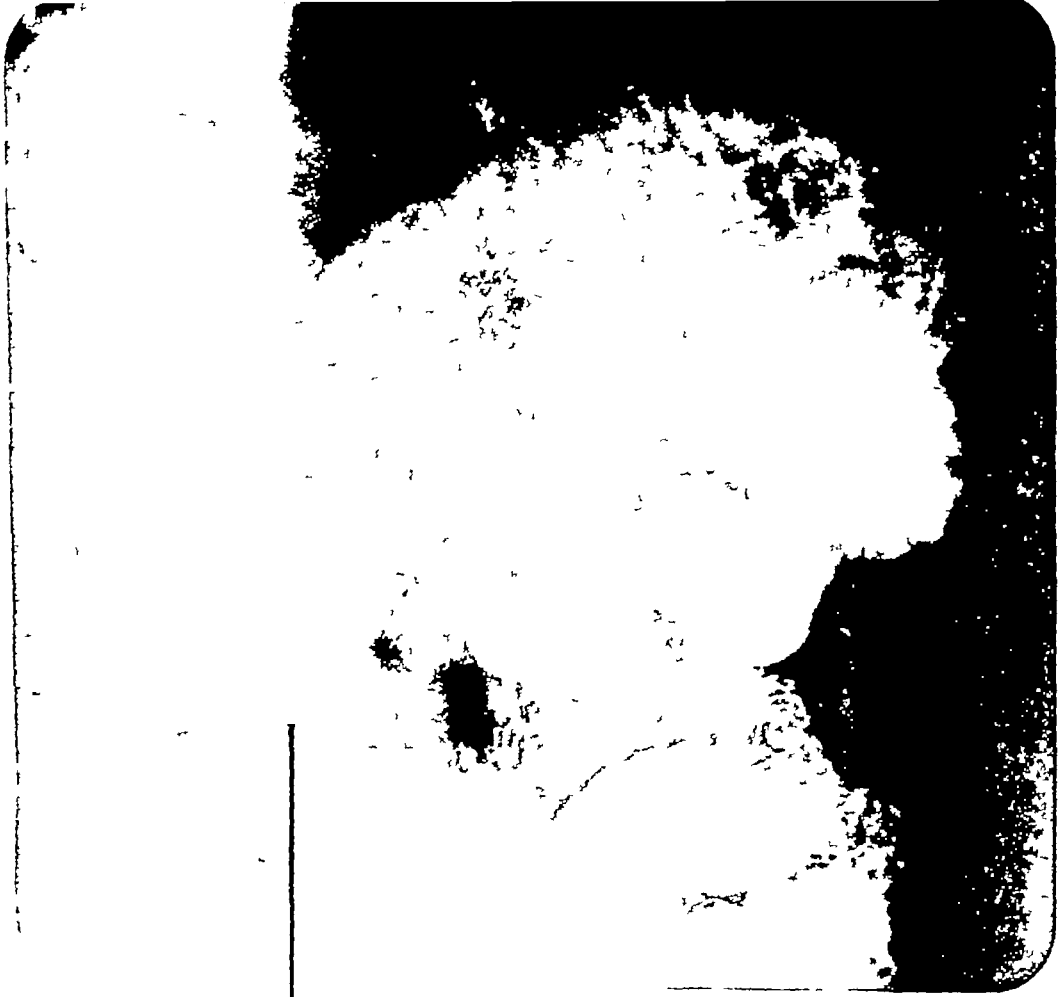
Essays shall be typewritten or printed with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device The essay shall be accompanied by a sealed envelope having on the outside the same motto or device, and containing the name and address of the writer

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than February 1, 1950, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York

ARMITAGE WHITMAN, M.D., *Chairman*
Committee on Prize Essays



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*Paul, W D. Medical Management of the Complications of Peptic Ulcer J. Iowa M. Soc. 37 6 (Jan.) 1947

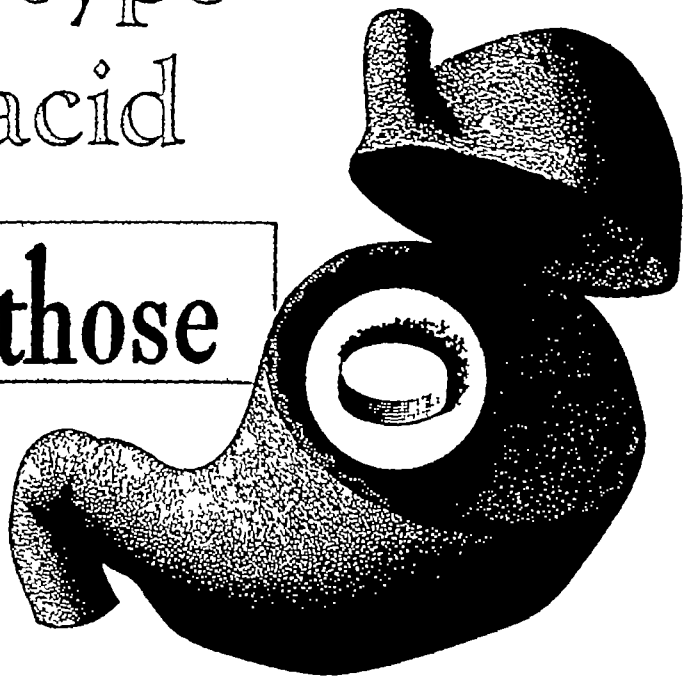
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Adult dose is 2 to 4 tablets or teaspoonfuls 4 times daily between meals

Carmethose Tablets *sodium carboxymethylcellulose, 225mg and magnesium oxide, 75mg Bottles of 100*
Carmethose Liquid *5% concentration of sodium carboxymethylcellulose Bottles of 12 oz.*

Advantages over adsorbent gels:

1 *Non-constipating*—hydrophilic gel promotes normal elimination [1 2]

2 *Reduction of acidity in two ways*—prompt action by ion exchange is followed by classical buffering action

3 *Palatable*—small, easily swallowed tablets and pleasantly flavored liquid—preferred by patients [2]

Advantages over soluble alkalis:

1 *No acid rebound*—effectively inhibits acid-pepsin activity, with no secondary hypersecretion

2. *Protective coating*—mucin-like gel is rapidly formed and clings to ulcer crater and gastric mucosa

3 *Non-systemic*—cannot disturb acid-base balance because it is non-absorbable

1 Brick I.B., Amer. J. Dig. Dis., In Press 2. Bralow Spiegberg & Nicholas Scientific Exhibit #1112 A.M.A. Annual Session 1949

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THE CEREBRAL PALSIES THEIR DIAGNOSIS, CLASSIFICATION, AND TREATMENT

WILLIAM D DUGAN, M D , Buffalo, New York

(*From the Buffalo Children's Hospital*)

THE cerebral palsies are a group of diseases due to lesions in the brain substance characterized by various motor deficits as a result of altered neuromuscular function These affect persons of all ages In about half the cases, the disease is present at birth Of these, most are due to a congenital developmental defect and a minority result from prenatal and postnatal brain hemorrhage or anoxia The Rh factor and kernicterus determine the damage in a small number of cases Various infections of the infant, child, and adult may leave permanent brain damage which manifests itself as a cerebral palsy Head injuries at any age and cerebral accidents of older persons are causative agents

There has been a great public awakening of interest in this condition What is the reason for this? There have always been many persons afflicted with cerebral palsy—almost as many new cases occurring annually as are handicapped during a like time as a result of poliomyelitis The reason for this intense interest is that doctors and mothers and fathers of children with the disease and friends and families of adults with the disease have been brought to the realization that something can be done to improve their lot This is a new line of thought

Dr Winthrop Phelps of Baltimore has devised a classification which, at the present time, is the most practical basis for treatment Let us examine it briefly

The cerebral palsies are divided into five general types spasticity, athetosis, rigidity, tremor, and ataxia The spastic is a child who has had damage to or maldevelopment of the motor cortex, internal capsule, or some portion of the pyramidal tract system Muscles are affected in groups rather than singly The resulting paralysis may be spastic or flaccid or a mixture of both There are always some spastic muscles present, even when flaccidity predominates Flaccid muscles in a spastic are also called zero cerebral

A spastic muscle is one which has increased tone and irritability and which demonstrates a stretch reflex, its presence being the most important single point in the diagnosis of a spastic type of cerebral palsy For example, the quadriceps is known to be spastic With the patient prone, the knee is fully extended, putting the quadriceps in its position of greatest shortening The knee is then passively flexed, causing quadriceps stimulation by stretching Being hyperirritable, it contracts momentarily at some point in the arc of flexion and then releases, permitting the remainder of the range to be completed without hindrance This contraction is a stretch reflex It occurs on every examination and always at the same point in the range of joint motion

Spastic muscles overpull their antagonists and render them weak through stretching and disuse Thus, the spastic presents a picture of strong, weak, and flaccid muscles with complicated possibilities of imbalance and resulting true contractures or deformities Involvement may be of any voluntary muscles of the head, neck, trunk, and extremities It may be monoplegic, diplegic, triplegic, or quadriplegic

The athetoid may at first glance be indistinguishable from a spastic Both may drool, have defective speech, be awkward of hand movements, and be unable to walk However, either may be so mild as to be scarcely distinguished from the normal The athetoid's difficulty is basically entirely different, as are his physical findings on closer inspection. His trouble is due to a defect in the basal ganglia A function of the basal ganglia is to act as a selector of impulses coming from cortical or cerebellar levels If this selective function is impaired, impulses in a fantastic number may reach the skeletal muscles, causing all sorts of bizarre and involuntary motions This motion is the cardinal finding identifying an athetoid It is irregular, unrhythmic,

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and unpredictable It may be fast or slow, constant or infrequent It disappears during sleep

Considerable numbers of athetoids show tension in uninvolved groups of muscles Its presence depends upon a conscious effort of the child to control his athetosis As this effort becomes habitual, it eventually becomes involuntary and in the final analysis increases the total disability It is not known why some athetoids have a great deal of tension while others have little or none Athetosis and tension will disappear momentarily when an extremity is shaken vigorously This is an important diagnostic characteristic Usually, athetoids have normal intelligence Speech defects are inconstant in nature, differing from the spastic in whom they are constant

Rigidity is thought to be the result of diffuse brain involvement The extent and severity of its peripheral effects may vary as in the spastic and athetoid This type is much more likely to have severe mental impairment than are any of the others Diagnosis rests upon one cardinal finding the presence of lead-pipe-like resistance (and make it a pipe of small caliber) in one or more muscle groups There may be minor elements of athetosis, spasticity, or ataxia present The differentiation between a tension athetoid and a rigidity may be difficult and rests upon experience in detecting the difference between a rigid muscle group and a tension muscle group Rigidity may be constant or intermittent

Ataxia is due most often to cerebellar dysfunction However, other components may be at fault, for example, the vestibular component of the eighth nerve The cerebellar ataxic lacks kinesthetic muscle sense He does not know what muscles to use to perform an action, he does not appreciate the relative position of his muscles in space For example, he may walk well on a flat surface If he suddenly strikes a downward incline, he will run to regain his balance, for he pitches forward, due to a failure to appreciate the gravitational change which has occurred His outstanding characteristics are incoordination and lack of balance His muscles are flabby, his joints hypermobile, and his tendon reflexes diminished or absent, whereas the tendon reflexes of the athetoid and the rigid type are normal and those of the spastic are hyperactive Again, the severity of the condition varies greatly

Tremor is the last type to be considered It is thought to be due to involvement of the red nucleus It is the rarest of the cerebral palsies seen in children, although it is rather common in older persons in the form of paralysis agitans It is characterized by rhythmic flexor-extensor motions Usually the joints involved go through an extensive range, being carried each time as far into flexion as extension by the abnormal muscle action Tremor movements show a common rate of speed throughout the body, which differentiate them from athetosis Tremor may occur constantly or appear on intention or disappear with intention Muscle power is essentially normal Emotional disturbances are frequently present Characteristically, the tremor child does heavy activities more readily than light ones and walks better than he uses his arms. He tends to talk in a loud voice as his speech muscles work better that way

Treatment of cerebral palsies is a highly complex, expensive, and prolonged process Some severe cases can be effectively treated only on a resident basis under the care of a full-time staff of therapists, nurses, teachers, house mothers, carriers, kitchen personnel, and administrative personnel Experience has shown that their total numbers must be approximately equal to the number of patients Less severe cases may be treated on a home basis with weekly visits to a treatment center and with a planned program being carried out by therapists in the center and by the parents at home Mild cases may be treated entirely at home with parents carrying out a treatment plan in which they have been instructed Treatment should begin as soon as the condition is definitely recognized, which is rarely sooner than six months of age

The specially trained physical therapist, occupational therapist, and speech therapist, working under the guidance of a physician, form the backbone of a treatment program Braces, drugs, and surgery are treatment adjuncts given in the order of their importance Special neurologic, pediatric, ophthalmologic, otolaryngologic, and psychiatric help are often needed

Treatment aims vary tremendously, depending on the degree and type of involvement a patient may have, his age, his mentality, and an estimate of the improvement that can be expected Important things should be taught first to the severely handicapped These are speech, hand skill for self help, and walking Sometimes the handicap is such that one of these aims must be ignored For example, a boy of sixteen with a spastic type of cerebral palsy is seen He is completely helpless, has never had treatment, and has been taken care of by his mother to the best of her ability He cannot walk, he talks quite well, and he has little use of his hands He can sit His legs are tight and severe contractures are present, muscle atrophy is severe, and muscle power is nil through stretching and disuse This boy cannot be taught to walk. But he can be taught hand skill sufficient to get himself about and be in a measure independent in a wheel chair He can be taught to feed himself and perhaps even to type-write As a general rule, however, one aims to

train a child to comparable skill in talking, hand use, and walking

Now to discuss briefly methods of treatment, with attention first to the field of physical therapy in which the principal aim is to teach walking For this, muscle strength, a pattern of reciprocal leg motion, and balance are essential Various modalities such as passive motion, confused motion, relaxation, motion from the relaxed position, balance, reciprocation, and reach and grasp are used Weak muscles are strengthened, abnormal muscle characteristics are eliminated, and new pathways of neurogenic control are established by repetition and training

In a spastic, the special problem of the stretch reflex is tackled By repetitive training, the range of a spastic muscle can be gradually increased without eliciting the stretch reflex. Occurring only in the spastic is confused motion This refers to the involuntary contraction of certain flaccid or zero cerebral muscles when an apparently unrelated muscle action occurs The most common example of this is contraction of the tibialis anticus when the hip flexors act against resistance The explanation for this is not known By careful and prolonged training this involuntary confusion of action can be trained into a useful and voluntary one Other confusions exist and may be utilized in any spastic with flaccid muscles

Because spastic muscles produce weak antagonists and because flaccid muscles produce strong antagonists, balance is poor Weak muscles are strengthened by active exercises Balance is taught by training successively in sitting, kneeling, standing, and walking with and without the use of special apparatus such as braces, standing tables, parallel bars, crutches, and others

Thus, in physical therapy a patient is carried through a program of muscle training first recumbent on a plinth for the simpler modalities, and then sitting, standing, and ambulatory, using combinations of modalities and a variety of aids Programs are devised so that at all times the patient does things that are easy, others that are difficult, and still others which are a bit beyond his ability but which he will soon achieve Thus, a certain momentum, pace, and push are given to his program without forcing him to the point of frustration or discouragement

With the athetoid, the initial stress falls on relaxation which is of minor use in the spastic Relaxation consists of elimination of involuntary motion and tension by actively learning to "let go" It must be learned muscle by muscle, beginning with the least involved first, and is a process of many months duration Following relaxation, the athetoid learns motion from the relaxed position He is trained in a pattern of walking and balance while he is still working with relaxation. Like the spastic he will often need muscle strengthening

The rigidity type of patient is trained much as is the spastic, save that there are no stretch reflexes with which to deal The rigid muscles must be "worked through," so to speak, and muscle strengthening, reciprocation, and balance are learned individually and then together

In the tremor cases, relaxation is important The program of physical therapy need differ little from that of the athetoid

The ataxics are entirely different In physical therapy no table work should be done except in the learning of reciprocation. Balance work daily is the basic training of an ataxic By using weighted shoes he can be brought rapidly to walking Treatment in all phases of the uncomplicated ataxic is very effective

Occupational therapy uses the modalities of physical therapy It is concerned with arm-hand skills such as eating, dressing, writing, and toilet needs The patient must learn reach, grasp, and release Special equipment is used tables, chairs, blocks, buttons, spoons, typewriters The treatment is varied for the different types of cerebral palsy, according to the same principles that are followed in physical therapy The ataxic concentrates on eye-hand coordination, using combined motions

Speech therapy has special problems The spastic tongue differs from the athetoid Deafness, partial or total, complicates many cases of cerebral palsy Hearing aids, lip-reading, and other special technics are used

The classroom teacher should be advised when these children have visual and auditory handicaps. She should be told that the spastic is introspective and sensitive and talks and moves slowly, that the athetoid is extroverted, amiable, and usually bright, that the rigidity patient is frequently feeble-minded and may be unteachable, and that the ataxic suffers from nausea and then vomiting if he does close eye-work without frequent rest He should be given a seat at the rear of the room and preferably one where he can look out the window

Braces are very useful They must be of robust and accurate construction Their purposes are to prevent and correct deformities, to support, to control involuntary motions, to assist in training in wanted motion, and occasionally to predetermine the effect of surgical arthrodesis of a joint In the spastic, braces must be rigidly made and without elasticity If a brace is used to correct an equinus foot, for example, and if it acts springily against the soleus, it will elicit constant and repeated stretch reflexes in the muscle, only serving to strengthen it and making the equinus more

and unpredictable It may be fast or slow, constant or infrequent It disappears during sleep

Considerable numbers of athetoids show tension in uninvolved groups of muscles Its presence depends upon a conscious effort of the child to control his athetosis As this effort becomes habitual, it eventually becomes involuntary and in the final analysis increases the total disability It is not known why some athetoids have a great deal of tension while others have little or none Athetosis and tension will disappear momentarily when an extremity is shaken vigorously This is an important diagnostic characteristic Usually, athetoids have normal intelligence Speech defects are inconstant in nature, differing from the spastic in whom they are constant

Rigidity is thought to be the result of diffuse brain involvement The extent and severity of its peripheral effects may vary as in the spastic and athetoid This type is much more likely to have severe mental impairment than are any of the others Diagnosis rests upon one cardinal finding the presence of lead-pipe-like resistance (and make it a pipe of small caliber) in one or more muscle groups There may be minor elements of athetosis, spasticity, or ataxia present The differentiation between a tension athetoid and a rigidity may be difficult and rests upon experience in detecting the difference between a rigid muscle group and a tension muscle group Rigidity may be constant or intermittent

Ataxia is due most often to cerebellar dysfunction. However, other components may be at fault, for example, the vestibular component of the eighth nerve The cerebellar ataxic lacks kinesthetic muscle sense He does not know what muscles to use to perform an action, he does not appreciate the relative position of his muscles in space For example, he may walk well on a flat surface If he suddenly strikes a downward incline, he will run to regain his balance, for he pitches forward, due to a failure to appreciate the gravitational change which has occurred His outstanding characteristics are incoordination and lack of balance His muscles are flabby, his joints hypermobile, and his tendon reflexes diminished or absent, whereas the tendon reflexes of the athetoid and the rigid type are normal and those of the spastic are hyperactive Again, the severity of the condition varies greatly

Tremor is the last type to be considered It is thought to be due to involvement of the red nucleus It is the rarest of the cerebral palsies seen in children, although it is rather common in older persons in the form of paralysis agitans It is characterized by rhythmic flexor-extensor motions Usually the joints involved go through an extensive range, being carried each time as far into flexion as extension by the abnormal muscle action Tremor movements show a common rate of speed throughout the body, which differentiate them from athetosis Tremor may occur constantly or appear on intention or disappear with intention Muscle power is essentially normal Emotional disturbances are frequently present Characteristically, the tremor child does heavy activities more readily than light ones and walks better than he uses his arms. He tends to talk in a loud voice as his speech muscles work better that way

Treatment of cerebral palsies is a highly complex, expensive, and prolonged process Some severe cases can be effectively treated only on a resident basis under the care of a full-time staff of therapists, nurses, teachers, house mothers, carriers, kitchen personnel, and administrative personnel. Experience has shown that their total numbers must be approximately equal to the number of patients Less severe cases may be treated on a home basis with weekly visits to a treatment center and with a planned program being carried out by therapists in the center and by the parents at home Mild cases may be treated entirely at home with parents carrying out a treatment plan in which they have been instructed Treatment should begin as soon as the condition is definitely recognized, which is rarely sooner than six months of age

The specially trained physical therapist, occupational therapist, and speech therapist, working under the guidance of a physician, form the backbone of a treatment program. Braces, drugs, and surgery are treatment adjuncts given in the order of their importance Special neurologic, pediatric, ophthalmologic, otolaryngologic, and psychiatric help are often needed

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severe Long leg braces with a pelvic band make possible training in walking, when, for example, one knee locks behind the other, making leg practice impossible Other bracing indications in the spastic are flexed knees, overpull of hip rotators and adductors, wrist and finger flexion position, and pronator overpull in the leading forearm. Some of these need only be braced at night, others day and night, depending on their severity Spastics must continue bracing for deformity prevention or correction until growth is finished

In the athetoid there is frequent indication for a full-control brace Shifts occur which make this necessary If an athetoid has pronounced involuntary movements in his legs and if the legs are fully braced, the athetosis will or may shift to the hips The full-control brace controls the presenting athetosis and whatever shifts may occur It allows only straight reciprocation and the motions necessary for walking Thus it serves to strengthen necessary muscles and weakens unnecessary ones

In the rigidities, bracing is similar to that in the spastic save that stretch reflexes are not considered Deformities are not so severe and are more easily corrected.

Tremors are usually not subject to bracing This is because constant repetitive motions rub the skin off

Ataxics require a minimum of bracing Occasionally, a full brace is needed for directional control Short leg braces and heavy shoes are used to stretch out tight heel cords and to lend weight and stability to the leg, ankle, and foot This alone may enable an ataxic who has never taken an independent step to walk

Drugs are important in some cases Curare (tubocurarine) may be helpful in the spastic facilitating muscle response It is useless in other types Tolserol (myanesin) has value as a relaxant in athetosis in the presence of tension Prostigmine has limited value in the rigidities, but is of no value in any of the others, despite its recent vogue It speeds up muscle action. In tremors, which are usually acquired conditions, hyoscine hydrobromide has definite value It has the ability to recall the use of previously learned actions It works best in postencephalitic states Dosage may be massive, for example, 6 mg daily to be effective, and should be achieved gradually Benzedrine may be given concurrently to combat its depressant action without reducing its beneficial effect Drug therapy plays no part in the treatment of the uncomplicated ataxic Any of the cerebral palsies may be complicated by grand mal, petit mal, or epileptic equivalents. Phenobarbital, dilantin, myzantoin, tridione, and glutamic acid are used to control them.

Peripheral surgery plays a minor role in the treatment of the cerebral palsies In the spastics it is rarely indicated until growth has been obtained Deformities usually recur if surgery is done sooner because tendon growth does not keep pace with bone growth A short heel cord, which is the most common spastic deformity, can always be corrected by proper bracing The rigidities can be regarded as similar to the spastics as far as surgery is concerned, save that deformities are less severe

In the athetoids surgery is usually disastrous because of the amazing shifts which occur Suppose that a varus foot is corrected by tarsal surgery The hip postoperatively will assume a position of internal rotation to put the foot in the same relative position This is an unexplainable phenomenon, but it occurs repeatedly Surgery may be done after very careful bracing of a part in a position of correction for some months to show that no unfavorable shift occurs

Ataxics do not need surgery

In summary, the purpose of classification of cerebral palsies is to serve as a guide to treatment Physical therapy, occupational therapy, and speech therapy are the most important fields of treatment Important things—speech, necessary hand skills, and walking—should be taught first Personnel must be highly trained It requires a large organization to treat severe cases effectively Supervised programs can be effective with parents carrying out the therapy at home Braces are important, drugs and surgery less so Thirty per cent are feeble-minded, and the value of treatment in these cases is limited A portion of the remainder can be made independent Ideally treatment should begin at less than twelve months of age

Discussion

Mark R. Harwood, M.D., Syracuse—With the increasing number of alert pediatricians on the lookout for these children, we see a good many cases at an earlier age It is very difficult to make a differential diagnosis of the type of cerebral palsy before the age of one year It is also difficult to treat these children under the age of two years away from home, either at an inpatient or outpatient clinic Therefore, in these young children outline a program at home, giving the parent a definite objective in Gesell's scale of the development of behavior pattern

Remember that you must teach the cerebral palsied a learned function to take the place of an automatic one. The activity must first be carried out passively and repeatedly until the child begins to take an active part In this connection Temple Fay has pointed out that the reciprocal motions are most easily learned and performed in a prone instead of a supine position [1]

Hearing defects in particular can interfere with the rehabilitation program. It is difficult to get

reliable audiometrics on cerebral palsied children, on the young child it is practically impossible The skin galvanic audiometer records the activity of the sympathetic nervous system in response to acoustic stimuli and seems to offer a fairly reliable means of estimating the auditory status of the handicapped child

You are all primarily interested in surgical indications Phelps has seen over 50,000 cases of cerebral palsy and states that 75 per cent of those operated on have been failures [2] Undoubtedly, the failures were not due to the operative procedures themselves but to the improper indications There is a place for surgery in the treatment of cerebral palsy of the spastic type but in no other

Some general principles are well kept in mind. Steindler says, "Surgery is only an episode in the life of a cerebral palsied."[3] It must be followed by the same intensive physical therapy as before Go as far as you can with conservative means before operative interference is considered. Be sure to look at the antagonist of the muscle group you are going to correct They may be flaccid or spastic Most scissors gaits are due to the flaccidity of the abductors. An Achilles tendon lengthening for equinus in the presence of spastic dorsiflexors will result in a calcaneus deformity If you can't do a good muscle test on the antagonist, inject the spastic muscle belly with novocaine. It loses its irritability by blocking its kinesthetic sense but not its contractility

Try to correct the deformities of the foot, knee, or wrist by active bracing, then if that works, arthrodesis will probably work too Bracing will stretch out contractures and allow you to go ahead with a muscle re-education program at the same time Wedged casts are faster but must be abandoned if you stir up the stretch reflex.

To mention specific operative procedures, derotation osteotomy of the femur is all right when performed for anteversion of the neck but not when the deformity is due to spasticity of the internal rotators without femoral torsion

If internal rotation is due to the tensor fascia femoris, it can be sectioned by a Soutter procedure The Durham operation should be done only if the anterior half of the gluteus medius is spastic and posterior half has good power Otherwise, it substitutes a Trendelenburg for an internal rotator limp

Chandler's transplantation downward of the patellar ligament for flexed knees with a high patella does not work in children and will only work in adults if you also do a neurectomy of the hamstrings

Neurectomy is valuable where there is ankle clonus on weight-bearing Usually, the clonus is only due to one or two of the seven branches which go to the soleus If due to the gastrocnemius, it will decrease or disappear on flexion of the knee At operation according to Phelps' technic, a curved transverse incision in the popliteal space with the apex up for the branches to the gastrocnemius and down for the soleus avoids the keloid which sometimes results from a vertical incision The branches which are overactive can be picked out by pinching or electrical stimulation, while the foot is held as much dorsiflexed as possible The patient must be light enough to respond. Avulse this nerve completely by cutting it at the sciatic and pulling it out of the muscle Finally, reserve your surgery for the end of the growth period, your results will be more gratifying to you and more beneficial to the patient

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1 Fay, Temple Arch. Phys. Med 29 327 (1948)
2. Phelps, Winthrop M. in Bancroft F W , and Murray C R. Surgical Treatment of the Motor-Skeletal System Philadelphia, J B Lippincott 1945 vol. 1
3 Steindler Arthur Orthopedic Operations Springfield, Charles C Thomas, 1940

ROLE OF HEREDITY IN GLAUCOMA*

In about one of seven cases, glaucoma is inherited and usually follows the particular familial pattern involved, such as congestive, chronic simple, or chronic simple with congestive attacks. A person with inherited glaucoma probably should not marry into a family with the same disease.

Potentially glaucomatous subjects may be detected by pupillography, which indicates the state of the autonomic system and particularly of the hypothalamic center Close relatives of every patient with the disease should have pupillography and provocative tests so that latent or early disease may be detected.

Routine examinations by Adolph Posner, M.D., and Abraham Schlossman, M.D , of the Manhattan E. a. Ear and Throat Hospital, New York, representing 30 families In addition, 48 other members of the same families were known to be affected. These figures increase the number of reported pedigrees by one third, since only 90 families with such heredity have been previously listed.

Hereditary glaucoma is often associated with constitutional disease in the family, especially vascular hypertension and diabetes or arteriosclerosis, toxic goiter, psychoneurosis, cataract, convergent strabismus, or obesity

Some apparently sporadic cases may actually be genetic, or familial disease may occasionally remain dormant for a lifetime At times the defect seems to skip a generation and return in the next.

TREATMENT OF COMMINUTED COLLES' FRACTURE BY ULNAR STYLOID RESECTION

C F Freese, M D , Hempstead, New York

(*From the Orthopedic Service of Nassau Hospital*)

THE poor end result of many Colles' fractures demands that more attention be paid this lesion Fractures of the lower radius in children are not included in this paper, however

I was first taught to reduce the fracture and immobilize with a wristlet for three weeks Later I was taught to obtain an anatomic reduction and immobilize with long arm plaster for eight weeks The position of the elbow was at a right angle, with forearm in supination and wrist in slight flexion and ulnar deviation Stress was placed on active muscle exercises of the fingers and shoulder every hour from the day of injury The plaster was changed to prevent it from becoming loose as the swelling subsided

Active physiologic muscle use of all the muscles of the extremity were a "must" for 20 to 30 times an hour daily

All fractures of the lower end of the radius, except the extreme comminuted type, gave good results In the comminuted Colles' fracture there was slipping of the original reduction with shortening and radial deviation of the hand and prominence of the lower end of the ulna.

After reviewing our end results, we decided to prevent this deformity in the comminuted Colles' fracture In this type of fracture, after reduction, there is a defect in the radial shaft The slipping that occurs is the shortening of the radius to close this gap We decided to remove the lower one inch of the ulna at the time of reduction in these fractures After removal of the lower portion of the ulna, the gap in the radius does not occur, and no secondary shift of the fragments occurs The fracture of the radius is then reduced and immobilized in a long arm plaster One caution is that over-reduction of the radius can easily be done with the ulnar styloid process missing This must be prevented

During the past three years 286 fractures of the lower end of the radius have been treated on our service, of which 61 have had ulnar resection

There have been no infections from the operation One patient had an increase of ulnar deviation of the hand Three patients had no clinical deformity, but the x-ray showed that the articular surface of the radius was tilted backward This gave limitation of flexion of the wrist However, the loss of this portion of the ulna does not weaken the grip

In summary, we feel that fewer malunited comminuted fractures of the lower end of the radius will be obtained if the lower one inch of the ulna is resected at the time of reduction of the fracture

131 Fulton Avenue

Discussion

Richard S Farr, M D , *Syracuse* —In Colles' fracture, the extent of the deformity depends upon the force applied to the hand. The radius which is longer and cancellous fractures and the distal fragment is displaced. It may be comminuted and impacted. The severe deformities usually have little impaction They are often comminuted, and the care of this type should be easy In reduction, the distal end of the ulna is used as a fulcrum and the fragments of the radius are brought into position with traction to re-establish length and alignment Then some retentive apparatus must be applied.

In the comminuted type it is difficult to hold the fragments in position There may be absorption of bone with subsequent radial shortening As swelling subsides, posterior displacement or tilting may occur

How can we prevent this? By traction? I concur with Dr Freese regarding wire traction Secondary immobilization changes are often severe, and residual restriction of motion is frequent

In comminuted fractures a long period is required to secure solid bone at the distal end of the radius This usually requires six weeks Often when healing is complete, there is radial shortening and prominence of the distal end of the ulna. Many of these patients get excellent function in spite of deformity

Pain at the radioulnar joint is a disturbing complication and is due to disruption of this joint. When this pain is severe, excision of a portion of the distal end of the radius is sometimes necessary

Dr Freese presents an operation which is unique and radical Certainly, open operation on a simple Colles' fracture is unusual By removing the end of the ulna the fulcrum for reduction is lost, and over-reduction may result Check x-ray in two weeks, as is recommended, should be made in all cases, and revision or correction may be made at that time

The series reported is interesting About 20 per cent had ulnar resections These cases were carefully chosen, and results were excellent

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo, Section on Orthopedic Surgery, May 6 1949

FRACTURES OF THE FEMUR IN CHILDREN

FRANK N POTTS, M D , and WYLLYS A DUNHAM, M D , Buffalo, New York

(*From the Department of Orthopedic Surgery, Children's Hospital*)

A CRITICAL review of 83 fractures of the femur, seen at the Children's Hospital over a period of ten years, led us to the following conclusions Fractures of the femoral neck are the most difficult ones to treat, fractures of the proximal and middle thirds of the shaft do very well, and those of the distal third, likewise, do not cause a great deal of trouble Relatively few of these fractures require open reduction, and most are adequately treated by traction The result in all these cases was excellent with one exception—a case that had an open reduction, followed by osteomyelitis and sequestrum formation.

We noted that, even though most of these fractures healed with some shortening, within about two years this difference in length decreased Because of this and the very satisfactory results obtained, we thought it worth while to call attention again to this subject, thinking that perhaps the presentation of our methods of treatment might be of some value

We then undertook an intensive review of the literature of the past thirty years and found that our experience was about the same as that of practically all writers Therefore, we have nothing at all new to add to the subject of the treatment of fractures of the femur in children However, methods of treatment giving such good results from one end of the country to another over a period of many years must be so good that it is of value to refresh one's memory on the subject The basic principles of treatment of these fractures must be followed in any method we use Principles do not change There are, however, occasional differences that a man presents in method or in application of his technic

Birth Fractures

These have been treated in mainly two ways One is based on the recognition of the fact that the fragments over-ride and that the proximal fragment is pulled anteriorly It seems logical, therefore, to place the lower extremity across the abdomen and chest, with the foot over the shoulder Padding is placed between the extremity and the body, and a bandage is wrapped around both to maintain this position These infants appear to become comfortable quickly, they are easily cleaned and in this position can be handled fairly easily for nursing

Union is firm in three or four weeks, so the dressings can be discarded X-rays at that time are very discouraging because of union with over-riding and shortening It has been our experience, however, that over a period of several years the evidence of fracture disappears and that the alignment has been universally good, discrepancy in leg length has never been a disturbing factor

Others have chosen to dress these small legs in traction, using frames, or splints with overhead bars to which the traction straps are attached [1–3] Another method utilizes a plaster cast about the upper part of the body with an arm projecting from this for traction [4] Most of these methods interfere with the nursing of the child, unless it started its career as a bottle patient Some variations would lessen the nursing problem and the difficulty in keeping the infant clean However, we have no reason to believe, from perusal of the literature, that these methods have any advantage, in the long run, over fastening the leg up over the chest and abdomen. The latter has been our preference in the few cases we have seen and we have no reason to deviate from that choice

Fractures of the Neck of the Femur

These fractures have given us considerable concern, and apparently we are not alone in this [5–7] They are difficult to reduce and difficult to maintain in reduction The best method for us has been considerable traction with the leg in the abducted position in a Thomas splint In the few cases we have had this has brought about a fairly good and, at times, a perfect reposition of the fragments with solid union and a good result

Fractures of the Upper Third of the Shaft

The major problem here is that there is usually a combination of flexion and abduction of the short upper fragment This is best solved by following the old principle of bringing the distal fragment into alignment with the short proximal one Strong traction with the thigh abducted and flexed about 45 degrees realigns the fragments and restores, to a large extent, the length of the leg The fracture proceeds to union with a very good result If the child is young enough to

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During the past three years 286 fractures of the lower end of the radius have been treated on our service, of which 61 have had ulnar resection

There have been no infections from the operation One patient had an increase of ulnar deviation of the hand Three patients had no clinical deformity, but the x-ray showed that the articular surface of the radius was tilted backward This gave limitation of flexion of the wrist However, the loss of this portion of the ulna does not weaken the grip

In summary, we feel that fewer malunited comminuted fractures of the lower end of the radius will be obtained if the lower one inch of the ulna is resected at the time of reduction of the fracture

131 Fulton Avenue

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Orthopedic Surgery May 6 1949

Discussion

Richard S Farr, M.D , *Syracuse* —In Colles' fracture, the extent of the deformity depends upon the force applied to the hand The radius which is longer and cancellous fractures and the distal fragment is displaced. It may be comminuted and impacted. The severe deformities usually have little impaction They are often comminuted, and the care of this type should be easy In reduction, the distal end of the ulna is used as a fulcrum and the fragments of the radius are brought into position with traction to re-establish length and alignment. Then some retentive apparatus must be applied

In the comminuted type it is difficult to hold the fragments in position There may be absorption of bone with subsequent radial shortening As swelling subsides, posterior displacement or tilting may occur

How can we prevent this? By traction? I concur with Dr Freese regarding wire traction Secondary immobilization changes are often severe, and residual restriction of motion is frequent

In comminuted fractures a long period is required to secure solid bone at the distal end of the radius This usually requires six weeks Often when healing is complete, there is radial shortening and prominence of the distal end of the ulna. Many of these patients get excellent function in spite of deformity

Pain at the radioulnar joint is a disturbing complication and is due to disruption of this joint When this pain is severe, excision of a portion of the distal end of the radius is sometimes necessary

Dr Freese presents an operation which is unique and radical Certainly, open operation on a simple Colles' fracture is unusual By removing the end of the ulna the fulcrum for reduction is lost, and over-reduction may result Check x-ray in two weeks, as is recommended, should be made in all cases, and revision or correction may be made at that time

The series reported is interesting About 20 per cent had ulnar resections These cases were carefully chosen, and results were excellent

Fractures of Lower Third of the Shaft

Fractures in this location are not commonly seen in children under the age of five but occur in the older age group They are best treated with Russell's traction, a second sling being placed under the distal fragment, usually posteriorly displaced

Overgrowth of the Femur Following Fracture

One of the most interesting aspects of the problem of the fractured femur in the child and one that has caused considerable discussion is that of longitudinal overgrowth of the shaft following a fracture This was described in five cases by Truesdell in 1921 and since that time has been repeatedly observed and studied by others, namely, David, Cole, Compere, Bisgard, and Aitken and their coworkers [17] Earlier writers believed that this increased growth was a so-called compensatory phenomenon, called forth by the "need" of the body to equalize the leg lengths [14,18] Others have shown that this overgrowth occurs even when the fracture is anatomically reduced so that it could not be compensatory [19,20]

We know that the type or site of the fracture and the method of treatment have little effect on this increased growth [14,19–21] There is some evidence that those femurs healed with the greatest over-riding show the greatest increase in growth [21]

Aitken has shown that, on the average, this increase in growth amounts to about 1 cm , and most of this occurs in the first year following fracture [19,21] His studies also indicate that although the vast majority of children under thirteen years of age show an increased growth of the fractured femur, those over thirteen do not enjoy this advantage

Apparently, the trauma involved and the increased blood supply present in the period of healing and restoration of the bone causes an accelerated growth We know this is true in other conditions in or near bone that are associated with an increased vascularity, as osteomyelitis, tuberculous arthritis, arteriovenous aneurysms, etc

We must settle for the fact that, if there is over-riding, there is a tendency to approach normal length if the fracture occurs in a child under the age of thirteen We are, therefore, justified in our anticipation of making up bone length when there is healing with shortening Open reduction is, then, not justified for shortening

Conclusion

Having reviewed many articles, we found the consensus of opinion to be that fractures of the femur in children are best treated conservatively with some form of traction The functional results are universally good Any discrepancy in length present when active treatment is discontinued is made up to a very large extent, in the majority of cases, within a period of a year and a half During growth, there is a great tendency to correct any malalignment

It seems, in brief, that we should make every reasonable effort to obtain a good alignment rather than to go to extremes to obtain normal length A good alignment, we believe, is more important than length Adequate traction will give good alignment with relatively little shortening

We make no apology for presenting this subject to you It is gratifying to know that the treatment of this type of fracture almost invariably gives a good result if we adhere to simple principles These principles have not changed in the period that we reviewed, but there have been *numerous modifications in the ways that they* have been applied

89 Bryant Street

Discussion

William E Gazeley, M.D , *Schenectady* —I believe it would be of advantage to have more papers of this type, for certainly few papers can be more valuable than a critical résumé of clinical experiences in a large group of cases For the most part, my own treatment parallels that of Dr Potts

In reviewing the literature it is interesting to note the many methods employed in the treatment of these fractures Usually where there are many methods of treatment for the same condition, there is no single treatment which is completely satisfactory, fractures of the shaft of the femur seem to be the exception, since most methods prove satisfactory with the exception of open methods

In the few birth fractures that we have treated we have used the method described by Dr Potts We have also placed them in a cast, in the frog position, similar to that used in congenital dislocation of the hip, but we really prefer to use a simple overhead portable frame with the legs held up by rubber traction bands We feel that we can better control rotation of the fragments in this way, with the position of the feet in sight, and feel that this is important because rotation is not one of the deformities that corrects itself well with growth.

We feel that over-riding of $\frac{1}{2}$ inch is desirable In children under five years of age and under 50 pounds in weight Bryant traction is used.

I have seen considerable bowing in the upper third correct itself well, but angulation in the middle third has not done as well in our experience, therefore, we can heartily subscribe to Dr Potts' advice that alignment is much more important than over-riding

In all cases traction is applied by means of flannel glued to the skin by ACE Adherent

tolerate an overhead traction, this handles the situation well

Fractures of the Middle Third of the Shaft

This is by far the most common location These are spiral, oblique, or transverse fractures, depending largely on whether they were sustained from indirect or direct trauma Here again, our method of treatment is dependent on age We prefer the overhead or Bryant's traction in those children under four years of age Anatomic reduction has been rare The transverse fractures show slight over-riding with bone contact only along the cortex, the oblique fractures perhaps show a better alignment

These fractures become reasonably solid in about four weeks, and it has been our custom to discontinue traction at that time, and allow the child to go home in a well-applied hip spica In those instances where the parents did not request this, we have continued traction for a total of six or seven weeks when there is firm union

We have been inclined to put both legs up in overhead traction if the child is small If he is a little larger, we have used only the one leg We realize how children squirm and wiggle about, even in traction, but this has not apparently disturbed the relation of the fragments to any degree Overhead traction, in our opinion, is an efficient and satisfactory method of treatment for the age group indicated

There has been no single method used in our treatment of the older child We may have a preference for one or the other, depending on the type of fracture, the amount of over-riding, the size and age of the child, or associated injuries It appears to be the opinion of most men that there is no one method of treatment Any of several methods of treatment, if carefully selected and carried out, will give a good result in the vast majority of cases

Many years ago, the late Dr Willis Campbell advocated manipulation of transverse fractures of the femur and demonstrated that reduction could be accomplished by traction and angulation.[8] Application of a hip spica then allowed the child to be cared for at home It has been satisfactory as far as alignment has been concerned but has not been satisfactory, in our experience, in maintaining end-to-end apposition, especially in the child over ten years of age Even though the fragments were initially well entangled, over-riding occurred later In spite of this, the end result was just as good as in those cases treated by traction

There have been a few cases of oblique fractures with very little over-riding that we have chosen to treat initially by a hip spica These patients were sent home at an early date, and their fractures united in good alignment The end result was good, although healing occurred with a little more over-riding than was present when the child left the hospital One or two of the cases treated in this manner developed considerable angulation, which was satisfactorily corrected by wedging the plaster

We have frequently used the Hoke well leg traction splint, with very satisfactory results An architectural restoration was not obtained, but the general alignment remained good, and the fractures went on to solid union Patients are easily transported in this apparatus, and their parents can take them home, if they watch the traction to see that it does not get loose or slip

Blount *et al*, in an excellent report of a series of 281 fractures of the femur in children, found that 69 per cent of these were in the middle third This figure corresponds to those reported in other series [10–13] Greenstick fractures here are less common than in the distal third, and comminution is much less common than in adults In his experience, Russell's traction for four to six weeks was an effective method of treatment for those children over four or five years of age In the few cases in which we have used this method, it has worked well, but it needs more attention than most other methods

Many authors have stressed the fact that open reduction of these fractures in children is rarely, if ever, necessary [9–11 14,15] Many complications are reported following such a procedure, including osteomyelitis, malunion and nonunion, multiple refractures, growth disturbances, septicemia, and death The plea that interposition of tissue between the fragments will interfere with union is not a valid justification for open reduction in the child In the few cases where satisfactory position cannot be obtained by skin traction, skeletal traction usually obviates open reduction

Le Mesurier describes a simple and effective method of treatment, utilizing fixed traction.[16] A Thomas splint is applied, and the traction straps are fixed to the end of the splint which, in turn, is tied to the foot of the bed The child is placed on a Bradford frame with the foot of the frame elevated about 30 degrees The tendency of the child to slide down the incline creates a traction force, since the leg, and thus the distal fragment, is fixed

Whether one uses fixed traction, as in this method, or a pulley and weight traction is a matter of personal preference We have seen patients treated in this manner with excellent results, but the latter is probably the choice of more men

ORTHOPEDIC X-RAY PROBLEMS IN CHILDREN

G NEWTON SCATCHARD, M D , Buffalo, New York

(From the Children's Hospital of Buffalo and the Department of Radiology, University of Buffalo Medical School)

THIS discussion of osseous lesions in children and infants is not intended to present anything new in the realm of lesions or diseases It is for the purpose of calling attention to some of the problems which frequently cause concern to the radiologist, orthopedist, or general practitioner who is not primarily concerned with the care of children and who is apt to be misled or puzzled by some of these relatively simple problems

In order to evaluate properly and understand x-ray findings in the bony structures in children, it is necessary to remember that the epiphyseal, growing portions of the infant's and child's skeleton differ from the bony structures of the adult It is particularly important to make comparative films of the normal, or uninjured side, in order to have an accurate evaluation of the normal appearance of the joint or structure in the individual being studied.

Rarely a day goes by that some doctor from the surrounding area does not bring films related to one of the problems to be discussed We have selected for this paper those anatomic regions which most commonly are puzzling

The diagnosis of congenital dislocation of the hips in young infants is often difficult When a proper diagnosis is established and proper treatment instituted in early infancy, the prognosis is excellent When the diagnosis is not made until the age of several years, treatment is necessarily prolonged and tedious with a relatively poor prognosis Whenever asymmetric gluteal folds are noted or abnormal position or motion of one or both legs is observed, x-ray examination is indicated The criteria which we find useful, after having obtained good, symmetric radiographs, are as follows The angle of the roof of the acetabulum is measured When this angle is over 30 degrees, in an infant over six weeks of age, we consider it a potential dislocation

Another indication of dislocation is the relationship of the femoral head to a line erected perpendicular to another line drawn through the inferior medial edge of the roof of the acetabulae The perpendicular is erected from the upper outer corner of the acetabulum It has been shown that normally the femoral head lies medial to the perpendicular line, whereas, the dislocated hip lies with its head lateral to the line The dislocated hip usually lies above the base line

Another indication, in slightly older children, is the size of the upper femoral epiphysis When these are ossified, the one on the side with the dislocation is invariably smaller

A cause for a dislocated hip in a young infant, which may be easily, and mistakenly, diagnosed as congenital dislocation of the hip, is osteomyelitis of the femoral neck In this condition, it is not unusual for the hip to be dislocated as a result of the large amount of pus in the joint capsule This can occur before any definite bony lesions of osteomyelitis are visible in the x-ray film.

The differential points are easy if they are considered In the first place, the roof of the acetabulum is normal, and the hip is painful The second point is a fullness of the soft tissues around the hip joint Such a hip will automatically slip back into place following aspiration of the pus

In older children, the point of fusion of the ischii with the symphysis is apt to mislead those who are not familiar with the appearance of these bones in the age group between seven and ten years and occasionally up to twenty-one years We have seen this normal point of union diagnosed as fracture, bone cyst, bone tumor, and exostosis These odd appearances may occur on both sides or only on one side Cases in which the odd appearance is unilateral are most likely to cause confusion We feel that actual bone lesions at this point are very rare

Other lesions of the hip which may be frequently confused are Perthe's disease, slipped femoral epiphysis, and tuberculosis of the hip joint These three are usually rather easy to differentiate

1 The Perthe's disease shows flattening of the upper femoral epiphysis, with increased density, widening of the joint space, and a translucent area in the upper portion of the femoral neck adjacent to the epiphyseal line This usually occurs in children under the age of ten years

2 Slipped femoral epiphysis occurs in older children The density of the head remains normal, and the slipping is obvious if both anteroposterior and lateral views are taken. The age range is usually between twelve and fourteen years

3 Tuberculosis of the hip can occur in any

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Under twelve years of age we expect firm callus in six weeks under four years in two to three weeks.

Skeletal traction is used only after a manipulation for malunion, and it is well to remember, as Dr Walter Blount points out, that following such a manipulation the shaft will grow about one inch longer than if no second manipulation was necessary This applies also to the use of pins near the site of fracture and to open reduction

Greenstick fractures in our experience have all been in the lower third and in this location we believe that the angulation takes care of itself with growth

Subtrochanteric fractures have at times presented a serious problem, and I believe they require much more attention than other fractures of the shaft. Fractures of the neck of the femur present all the difficulties encountered in the same fracture in adults with the additional hazard of an increased number of cases of a vascular necrosis.

At the present time we feel that as good reduction as possible should be obtained and blind pinning with beaded wires used for fixation They are stronger than Moore's pins and less likely to break and wander

We are in thorough accord with Dr Potts that open reduction under the age of eighteen is to be condemned except in very unusual instances. The interposition of muscle rarely prevents union.

When a child has to be transported to some other city before union is complete, Hoke traction is a most satisfactory method.

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SCIENTIFIC EXHIBITS
1950
ANNUAL MEETING

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Dr J G Fred Hiss
505 State Tower Building
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There will be two groups of awards

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W P Anderton, M.D., *Secretary*

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age group There is narrowing of the joint space, bone atrophy, and destruction

The wrist joint rarely causes serious diagnostic problems in children Greenstick fractures are common and readily diagnosed The evaluation of damage at the epiphyseal line is somewhat more difficult We feel that often this evaluation is impossible without comparative films The careful comparison of the epiphyseal line on the uninjured with that of the injured side will frequently demonstrate a widening, or very slight slipping, at this point We feel that this accurate evaluation is important in order that the injured epiphysis may be properly protected

One of the more difficult areas in which to evaluate injury is the elbow joint We take comparative films of the normal elbow as a routine In older children the medial epicondyle is the most frequent site of injury which is difficult to recognize The epiphyseal portion of the medial epicondyle is easily knocked off and may even float loose in the elbow joint and be hidden behind other bony structures Comparative films, properly studied, are most important in this situation Slight displacement of the medial epicondyle is relatively common and, we believe, impossible to recognize without carefully-made, comparative films Greenstick-type fractures in the supracondylar region, as well as epiphyseal injuries to the head of the radius, also fall into this same category

The knee joint causes difficulty much less often than the elbow joint We do feel, however, that comparative films are often of importance This is particularly true in evaluating the nontraumatic, painful knee We recently were confronted with a knee, painful for several months, which looked normal at first glance However, in comparing the contour of the lower femur with that of the normal knee, it was obvious that the medial half of the joint surface of the lower femur on the involved side was markedly flattened, and showed several, small areas of reduced density in the bone This lesion, with a rather small area of subcartilagenous bony softening, was felt to be a very early case of osteochondritis dissecans

The clavicles and shoulders in young infants, as you are probably well aware, are frequently very difficult to visualize well Here, again, comparative films are of value The problem frequently becomes a technical one of having the patient straight in relation to the X-ray beam, and of getting sufficient penetration to visualize the entire length of both clavicles Fractures of the medial end of the clavicles are those which are most frequently missed

One lesion of the shoulder which is rare, but extremely important, may be mentioned at this point This is the Codman tumor, which, in its early stages, has the radiographic appearance of osteomyelitis, and which later comes to look like a malignant bone tumor, usually an osteogenic sarcoma This particular tumor, microscopically as well as radiographically, is apt to be mistaken for a highly malignant tumor, and an unnecessary amputation of the shoulder, and probably the scapula as well, may result from inaccurate diagnosis These tumors respond beautifully to x-ray therapy or curettage and should certainly be kept in mind by all of us Osteomyelitis in any region may be easily mistaken for a bone tumor, especially Ewing's tumor

In discussing this problem of the osseous system in young children, there is one other extremely important point to bear in mind Trauma in young infants and children is very common, even without a history of injury We frequently study children because of a slight limp or a questionable swelling, to find unsuspected fractures When such obscure fractures are discovered, it often pays to examine the rest of the skeleton It is not infrequent to find other fractures in completely unsuspected areas For instance, a little child with a swollen foot, with only an x-ray of the foot ordered, has later been found to have a fractured femur as well Another child with a sore knee, who was thought to have scurvy, had the lower femoral epiphysis displaced This finding is consistent with scurvy and mild trauma However, because there were some ecchymoses of the head, also thought to be an indication of scurvy, skull films were made, which showed extensive skull fractures The most extreme example of this type was seen in twins, several months old, brought into the hospital with a diagnosis of scurvy because of painful extremities and scattered ecchymoses In x-raying the long bones for evidence of scurvy, it was found that each twin had four or five fractures of the extremities, and each had a fractured skull

Conclusion

Examples have been cited in an attempt to simplify the interpretation of x-ray films of the osseous lesions in infants and children The important rules, we feel, are as follows

1 Always take comparative films when possible

2 If there is any doubt as to the extent of the examination, it is always best to err on the side of studying too many parts too thoroughly

3 Most osseous lesions peculiar to children will be recognized if kept in mind

Discussion

Lee Hadley, M.D, *Syracuse*—The x-ray study of orthopedic problems in the child as contrasted with the adult presents many interesting problems pecu-

lar to that age period In general, these may be grouped, with some overlapping, as Dr Scatchard has shown, as congenital, nutritional, or developmental.

The speaker has described how injury to the epiphysis constitutes one of the major problems and has well demonstrated the value of comparative studies. He recommends that one "always take comparative films when possible" I appreciate the value of comparative films and use them in many cases, but I must take exception to his use of the term "always" It would be unfortunate indeed if the profession in general, the students, and even the lay public came to expect comparative studies to be made of all child injuries In case of the elbow, with its eight possible epiphyses appearing and uniting at different ages, the use of comparative studies becomes quite helpful, although, here again, by the use of lines, as the essayist has so well described under hip dislocation, the true evaluation of the injury is often clearly shown I refer to the lateral view of the elbow whereon a line corresponding to the axis of the shaft of the humerus will normally lie entirely posterior to the capitellar epiphysis

Diagnosis of a displaced epiphysis which has not yet shown a center of ossification offers some difficulty The upper femoral epiphysis at birth is a single cartilaginous mass including the head, neck, and both trochanters The ossification center does not develop until about the fifth month Some 20 or 30 cases have been reported where separation of this epiphysis has occurred at birth during breech extraction either with or without podalic version.* Rotation and traction on the leg causes a detachment of the bony shaft, leaving the cartilaginous femoral head within the acetabulum. Clinically, there is pain, swelling, limitation of motion, and external rotation X-rays show early massive callus and marked subperiosteal bone formation The upper end of the shaft becomes club-shaped Gradual resorption of the callus takes place If the upper end of the shaft has been displaced upward and laterally to a point above the level of the acetabulum, the prognosis is poor, and coxa vara is the end result

Epiphysitis, whether we attribute it to trauma, infection, disturbed nutrition, or some other cause, constitutes another problem in explaining some of the painful conditions of childhood. Known as proper name diseases, we have Legg-Calve-Perthe's disease of the hip already mentioned, Osgood-Schlatter's disease of the knee, and Scheuerman's juvenile kyphosis of the dorsal spine as probably the three most common I should also like to mention a painful and disabling condition sometimes encountered in children of this age group At about ten years, there develops an epiphysis within the sacroiliac joint between the ilium and the sacrum. Epiphysitis of this structure may be visualized as a fuzzy, blurred articulation and require definite orthopedic treatment.

In closing, may I call attention to the so-called secondary ossification centers In my own special field of interest, that of the spine, these may be of some clinical or medicolegal importance On each vertebra there are seven of these accessory centers, one each at the tips of the spinous process, the two lateral processes, and the four articular processes These small secondary ossification centers first appear at about ten years and should unite before twenty, however, they frequently remain ununited and in that state may be the site of an epiphysitis, form a movable ossicle within one of the posterior joints, or, following injury, be mistaken for a fracture

These are some of the features which make the x-ray examination of children an interesting challenge

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DOCTORS FIND WAY TO PICK BABY'S SEX

Scientific evidence that prospective parents may be able to choose between having a boy or a girl has been found in the Duke University Department of Surgery The choice has nothing to do with surgery, and is something any married couple can try The choice is not certain, but in the Duke studies the percentage is slightly over twenty-five in favor of having a baby of the sex wanted

The difficult part is for a woman to know her fertile period, which is a matter of two or three days only, once a month In the Duke studies, conceptions in the early part of the fertile period favor female births. Conceptions late in the period seem to show a preponderance of males.

The Duke studies were made by Drs Deryl Hart and James D Moody, and are reported in *The Annals of Surgery*, a Philadelphia medical publication.

Medical scientists in the last decade discovered surprising results of 9,489 artificial inseminations The usual ratio in human sex is 105 males to 100 females. But in these inseminations there were 5,676 males This, says *The Annals* article, is a 48 per cent increase in males over the theoretically expected number In artificial insemination, fairly exact knowledge of the fertile period is essential. Whether this result might have been caused by chance, Drs Hart and Moody do not say They cite it as a possible result of timing The series was reported by Drs. Francis F Seymour and Alfred Koerner in *The Journal of the American Medical Association —Herald Tribune, August 9, 1949*

DIPHTHERIA IMMUNITY IN HIGH SCHOOL SENIORS

EDWARD A LANE, M D , and WILLIAM A HOLLA, M D , White Plains, New York

(From the Westchester County Health Department)

FOR a number of years following the introduction of toxin-antitoxin and, at a later date, of toxoid, it was customary to speak of the active immunity so induced as developing in the course of a very few weeks and as probably lasting for many years Although only about 50 per cent of patients recovered from diphtheria are said to be Schick-negative a year later, it was surmised that frequent subclinical infection resulting from contact with mild, missed cases and carriers probably not only accounted for the Schick-negative state not infrequently discovered in adults without a history of recognized diphtheria in past but also served to fortify and prolong the artificially induced active immunity Assuming such to be the case, it was quite natural to wonder what effect the great decrease in diphtheria cases and the concomitant reduction in diphtheria carriers during recent years would have on the immunity status of children treated with diphtheria toxoid

Another factor in this question of diphtheria immunization has had to do with the antigenic potency of the preparation and the number, size, and spacing of injections needed to obtain the optimum results When the use of toxoid was still more or less in the experimental stage during the early 1930's, its employment was quite varied, probably with equally varying results Both the unprecipitated and precipitated types were tried in one, two, and three doses of 0 5 or 1 0 ml , each at intervals ranging from one to four weeks Largely through experiments carried out under the auspices of the American Public Health Association, the most effective method of treatment has been determined to be two injections of 1 0 ml. each of precipitated toxoid at an interval of four weeks to be followed by one or more "booster" doses of 1 0 ml. each at about three-year intervals When combined with tetanus toxoid and/or pertussis vaccine, the method of administration may have to be altered in accordance with the accompanying instructions

As indicated by the recommendation of booster doses, it was found, as time went on, not only that a few children failed to respond to a single, primary course of treatment, but that an appreciable number of those who did lost their Schick-negative status after one or more years As has been stated above, this loss of *initial immunity* is supposed to have been influenced unfavorably by the recent drop in diphtheria cases and carriers

While it has now become customary for most children to be given a primary course of treatment with diphtheria toxoid in early childhood, the need for periodic "booster" doses to maintain immunity is just beginning to be appreciated by the public In an effort to popularize further the administration of the "booster" dose, the Westchester County Health Department this spring (1949) undertook to conduct "booster" immunization clinics in the schools With such treatments limited to children under ten years of age who had not received an injection of diphtheria toxoid for at least three years, 2,699 children received such a "booster" injection in the school clinics The school nurses reported that additional children were so treated by private physicians When plans for the school clinics were made, it was decided to include some Schick testing of the older, school-age group to discover how well their immunity had carried over from a previous immunization in most of the cases dating back to early childhood Whenever a school system included a high school, a Schick test was offered to all members of the senior class Nine high schools participated in the study for a total of 588 tests Two hundred eighty-five of those tested were boys, and 303 were girls Eighty-four per cent of the group were seventeen or eighteen years of age The returns showed that 82, or 14 per cent, had received a booster injection at some time subsequent to the primary immunization Six had never received the diphtheria immunization treatment Information as to previous immunization was obtained from two sources (1) The school health records which are started with a record of immunization when a child enters school, and (2) a questionnaire circulated among the homes when the consents for the Schick test were obtained

Of the total number tested (588), 229, or 3[illegible] per cent, were found to be positive to the Schick test An attempt was made to grade the reactions as weak, moderate, and strong On the basis 23 per cent of the 229 positive reactions were strong, 44 per cent moderate, and 32 per cent weak. All of the tests were given and read by one of the authors, and all of them included a control injection

Two of the six pupils who had never been immunized had negative reactions Of the four positives, two were moderate, and two weak.

There were 87 pupils about equally divided between positive (42) and negative (45) reactions

for whom the information regarding previous immunization was either not stated or was questionable. It is very probable that most, if not all, of these individuals had been immunized at some time, the uncertainty having to do with the date of immunization which would have been many years ago

Excluding the "not immunized" and the "immunization not stated or questionable," there remain 82 pupils who had received a "booster" injection and 413 who presumably had not Of the former, 18 per cent had positive reactions, and of the latter, 41 per cent were positive

The numbers by individual schools were too small to be of much significance The percentages of positive reactions ranged from 32 (41 tested) in one school to 64 (22 tested) in another The school with the largest number tested (185) had 36 per cent positive In the entire group of 588 there were but 16 pseudoreactions and four combined reactions

There is a very unequal distribution according to length of time since the last immunizing treatment was received Of 364 pupils whose treatment dated back from 10 to 20 years, 40 per cent were positive, whereas of 60 who had received injections of toxoid, mostly as "boosters," within the previous ten years only 20 per cent were positive

Two recently published studies of diphtheria immunity afford a basis for comparison with our findings Cohen *et al* found 41 per cent of 234 adult females (seventeen to twenty-five years) to have a positive Schick test [1] They also report a reversion of the Schick test from negative to positive one year later in 3 per cent of previously susceptible and immunized children. This percentage increased rapidly so that by the end of five years about 35 per cent had become Schick-positive During the war Sellers *et al* found that approximately 50 per cent of all enlisted personnel in the Royal Canadian Air Force were susceptible to diphtheria as measured by the Schick test [2] Loss of immunity following immunization increased progressively with time, but even three to six months later, almost 10 per cent were Schick-positive

Faced with the knowledge that approximately 40 per cent of our young adults are susceptible to diphtheria as indicated by a positive Schick test, the question arises as to what, if anything, should be done about it The present low incidence of diphtheria bears on the problem from two angles The danger of infection is correspondingly low but with an apparent shift to the older age groups, however On the other hand, as already mentioned, the lessened opportunity for subclinical infections is probably affecting adversely the degree and duration of the artificially induced immunity If children could be given periodic "booster" injections at, say, three-year intervals during their preschool and early school life, it would seem reasonable to expect that they would develop a more prolonged immunity that would carry over in a greater percentage of individuals into adult life In the figures cited above, 41 per cent of the seniors without benefit of a "booster" dose were Schick-positive, whereas but 18 per cent of those who had received such an injection gave a positive reaction

Summary

1 Thirty-nine per cent of 588 high school seniors in nine scattered high schools in Westchester County gave a positive Schick test But six of the pupils were known never to have been immunized against diphtheria

2 Of 495 pupils for whom the information is reasonably reliable, 82, or 17 per cent, had received a "booster" dose of diphtheria toxoid at some time subsequent to the primary immunization. The percentages of Schick-positives among those who had and those who had not been so treated were 18 and 41, respectively

3 The more general employment of periodic "booster" injections of diphtheria toxoid during childhood appears indicated to insure more widespread immunity to diphtheria in adult life Two factors lending added support to such a course are the declining influence, in recent years, of subclinical infection in augmenting immunity and the shift in diphtheria incidence toward the older age groups

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POLIOMYELITIS AT MEADOWBROOK HOSPITAL, 1948

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THE experience with poliomyelitis at Meadowbrook Hospital in 1948 has provided a further study of a disease that has again reached epidemic proportions in 1949 Even if a slightly better control of the disease has been achieved, no satisfactory measures of prevention have been found In fact, it has been suggested that improvement in sanitation, by sparing the younger individual the lighter immunizing dose, may have increased the number of susceptible older persons, in whom, as this study reveals, the disease runs a more severe course

Unless darvisul (phenosulfazole) or some other drug proves to be effective, there is no specific treatment In the early stage the disease seems to run its varied course largely unaffected by the efforts of the physician

There is one important measure that can be taken, and that is the early institution of rest This, in turn, depends on early diagnosis, often difficult to establish. A definite impression has been gained in this and other studies, that those who continue to be active after the first symptoms appear develop a more severe form of the disease Therefore, the importance of early diagnosis and early institution of rest in the acute phase of poliomyelitis, is well established A record of the activity of some of the patients in this series illustrates this danger Three football players, who continued their strenuous physical exercise after symptoms appeared, a man who went to a dance after the onset of headache and pain in the legs, and others with a similar story, all developed extensive paralysis

In the year 1948, 101 cases of poliomyelitis were admitted to Meadowbrook Hospital in Nassau County, New York Of these, 50 were nonparalytic, 23 were paralytic, and 24 revealed a weakness of some muscle group, 19 had the bulbar form of the disease, two were classified as polioencephalitis, and there were four deaths

There were 33 over the age of twenty and 68 under twenty Of those under twenty years of age, 23 were over twelve and 45 were under twelve years Table 1 shows the age grouping and indicates the greater incidence of paralytic and fatal cases in the adult group

TABLE 1.—Classification of Cases of Poliomyelitis at Meadowbrook Hospital in 1948 According to Age Group

Age	Number	Non-paralytic	Paretic	Paralytic	Fatal
Over 20 Years	33	16 (48%)	4 (12%)	9 (27%)	4 (12%)
Under 20 Years	68	34 (50%)	20 (28%)	14 (21%)	0 (0%)

A comparison of some of the findings in the 1948 epidemic with those of 1944 and 1935 is contained in Table 2 There is a remarkable similarity in the figures with only one real exception—age incidence The percentage of adults in 1948 is 33, or almost three times that of 1944 and ten times that of 1935 The mortality is almost exactly the same for all three years, with 4 per cent for 1948, 4 7 per cent for 1944, and 4 8 per cent for 1935 (Table 2)

The distribution of cases according to month, likewise, is very nearly parallel, with September having the largest number of cases in 1948, and August being the peak month in 1944

Symptoms

The symptomatology in 1948 was similar to that of 1944, with headache and stiff neck prominent Gastrointestinal symptoms were slightly less frequent, and the symptoms of an upper respiratory infection slightly more Diarrhea was relatively infrequent There appeared to be little or no correlation between the type and severity of the early symptoms and the final outcome

The average duration of symptoms before admission to the hospital was five days in 1948, as against three days for 1944 This longer period of symptoms led to a slight difference in the spinal fluid findings but appeared to have no effect on the course of the disease or on the mortality

Another significant symptom in some cases was a generalized hypersensitivity and irritability, with more apprehension than could be explained on a basis of fear of the disease alone These patients were sensitive even to light touch, difficult to examine, and, needless to say, offered considerable resistance to the performance of a lumbar puncture It was gratifying in many cases to note a remarkable psychologic change after the first few days Children, who were apathetic, crying, irritable, and unresponsive would become more alert and smile on the fourth or fifth day, appear to take an interest in their surroundings, and regain appetite and inclination to play In the adult, the worried facies

TABLE 2.—A COMPARISON OF POLIOMYELITIS FINDINGS AT MEADOWBROOK HOSPITAL FOR THE YEARS 1935 1944 AND 1948

Year	Total Cases	White	Negro	Adults	Male	Female	Headache	Stiff Neck	Vomiting	Nausea	Upper Respiratory Infection	Paralysis	Deaths
1935	82	94	6 1	3 8	60	40	97	90 3	64 6	80 5	17 8	40 0	4 8
1944	171	97	1 7	12 8	58 6	41 4	53 8	51 5	34 6	7 0	16 9	19 2	4 7
1948	101	99	2 0	33 0	63	38	54	66	39		27	23	4

and despondence, the unreasonable complaining and fault-finding would give way to a more cheerful and optimistic outlook and cooperative behavior, and this even in the face of obviously paralyzed limbs

Diagnosis

In the absence of a specific rapid test for poliomyelitis, the diagnosis in the mild or nonparalytic case was difficult Of the various symptoms and signs seen in the acute stage of poliomyelitis, none is pathognomonic Since the spinal fluid may be normal, the spinal fluid findings do not prove or disprove the diagnosis Weinstein states that in about 10 per cent of cases the spinal fluid remains normal throughout the course of the disease [1] This figure seems high, since in the series considered in this report there were only three cases in which the spinal fluid was normal Three other patients with a normal spinal fluid on the day of admission developed an increase in cell count, total protein, or both, in a spinal fluid examination done a few days later

Spinal Fluid

The spinal fluid findings are found in Tables 3 and 4 The presence of more than five cells or a total protein of over 45 mg per cent was considered abnormal.

A comparison of the spinal fluid findings in 1948 with those of 1944 reveals that in 1948 the cell count tended to be slightly lower, while the protein values were almost identical

A few cases illustrate the variable clinical picture and spinal fluid findings, and the unpredictable nature of the disease

TABLE 3.—SPINAL FLUID CELL COUNT 1948

Number of Cells	Number of Cases
0	6
1-5	12
6-9	4
10-200	63
200 or over	11
No spinal tap	4
Not recorded	1
Total	101

TABLE 4.—SPINAL FLUID PROTEIN 1948

Total Protein (Mg. Per Cent)	Number of Cases
45 or less	21
46-60	17
Over 60	55
No spinal tap	4
Not recorded	4
Total	101

Case Reports

A five-year-old girl gave a six-day history of fever, headache, sore throat, and anorexia but was never acutely ill. There were 12 cells, all lymphocytes, and a normal protein in the spinal fluid She developed a definite weakness of the left shoulder muscles, especially the deltoid.

Another child, a five-year-old boy, representing the case that was seen more often, had the symptoms of an upper respiratory infection for a week prior to admission, two days before admission, he developed a headache, fever, and irritability The physical findings included a temperature of 102 F, nuchal rigidity, positive Brudzanski reflex, and positive Kernigs He was acutely ill. His spinal fluid contained 230 cells, 60 per cent lymphocytes, and a protein of 100 mg per cent He made a complete recovery with no muscular weakness demonstrable at any time and was discharged on the twentieth hospital day

These two cases provide an interesting contrast The little girl with mild symptoms and signs and whose spinal fluid showed only slight changes developed muscular weakness, while the boy, who had the manifestations of an acute illness with marked changes in the spinal fluid, was discharged well.

Two more cases are cited An eight-year-old boy with a two-day history of headache, fever, and dysphagia had a temperature of 103 F, hamstring spasm, and a diminished gag reflex. His spinal fluid contained 11 cells, 90 per cent lymphocytes, and total protein of 40 mg per cent. His course was one of progressive improvement, and he was discharged with only slight palatal weakness on the eleventh hospital day

In contrast to this boy's case, is that of a twenty-seven-year-old woman, who was two and one-half months postpartum. A week before admission she had a dizzy spell, three days before admission she had headache, fever, and dysphagia. Her temperature was 105 F, there was marked nuchal rigidity and difficulty in speech and in swallowing Her spinal fluid contained 7 cells, of which 5 were polymorphonuclear leukocytes and 2 were lymphocytes, and the protein was 165 mg per cent. During the first twenty-four to thirty-six hours she appeared to be improving The temperature fell to 101 F, and some recovery of swallowing was noted A few hours later the respiratory center of the brain be-

came involved, and she expired About ten days elapsed between the onset of her first symptom and her death

Both of these patients had similar symptoms and signs, but one made an almost complete recovery and the other died

Treatment and Management

Treatment under the joint supervision of the medical and orthopedic departments was largely symptomatic with absolute bed rest, fracture boards, and hot packs

Because of the psychic changes, especially in the first few days, it seemed very important to reassure the patients, possibly postponing a discussion of the diagnosis until later, or explaining that the disease in most cases runs a mild course

When there was respiratory embarrassment, relief of apprehension and prevention of panic were especially needed Reassurance and good nursing care were essential

After the acute symptoms subsided and the temperature returned to normal, early passive, then active muscle exercise was instituted, gently at first and gradually increasing, often in conjunction with the hot packs Even during a comparatively short stay in the hospital (the average duration was ten days, as it was in 1944 also), a considerable return of muscle function was observed before the patients were transferred to other hospitals for the prolonged treatment required for muscle re-education, for general rehabilitation, and for orthopedic measures

Thirty patients were transferred

A follow-up examination at one month from the day of discharge and again at six months was advised, since weakness not elicited in the hospital may become apparent on more strenuous activity Muscle evaluation was performed by a trained technician both in the hospital and at the follow-up examinations Reports were made to the County Health Department

In no instance was tracheotomy considered advisable

The administration of oxygen and the use of the suction apparatus proved to be helpful on several occasions

In one case, tube feeding was of benefit

The respirator, or "iron lung," served a useful purpose in only one instance This was a twenty-year-old white man whose intercostal muscles were affected

In the bulbar cases, the respirator was ineffective In one man, whose respirations had ceased, it extended life for a few hours

Complications

There were several noteworthy complications in the 1948 epidemic In seven cases, urinary retention was a disagreeable symptom and difficult to overcome Fortunately, in most instances control of the bladder was recovered in a few days

One mild urinary infection was encountered

In four patients the disease was complicated by pregnancy, three of them in the third trimester One of these, a thirty-six-year-old white woman, had the bulbar form and expired on the third hospital day A postmortem cesarean section was performed, but the baby was stillborn A similar situation arose in 1944, and a live baby was obtained The other case that terminated fatally was that of a twenty-seven-year-old white woman who was two and one-half months postpartum

These two cases suggested a connection between pregnancy and the severity of the illness. However, the other three pregnant women had a mild form of the disease

A serious complication was acute appendicitis, which occurred in a fourteen-year-old boy with bulbar poliomyelitis who previously had had marked respiratory embarrassment Fortunately, when the appendicitis manifested itself, the boy had greatly improved and had regained almost normal respiratory function An appendectomy was successfully performed, and the postoperative course was uneventful

Among other complications were the following Horner's syndrome (one case), pneumonia (two cases), and pleural effusion (one case)

Comment

Perhaps the most valuable feature of this experience with poliomyelitis was the opportunity afforded to study the symptoms and signs and early course of the disease

The psychic disturbances observed in many of the patients have been of particular interest Goldbloom has suggested an organic basis for some of the changes in behavior associated with poliomyelitis, and his electroencephalographic studies have tended to confirm his belief that encephalitis, especially in children, is more common in poliomyelitis than is supposed [3]

The larger number of adults in the 1948 epidemic is probably the most significant difference between this epidemic and previous ones

The higher percentage of paralysis in the adults and the fact that all the fatalities occurred in the adult group bear out the impression that the disease is more serious in the older individual

The higher mortality recorded for poliomyelitis in the earlier years, as high as 42 3 per cent in 1915 in some parts of the United States, was undoubtedly due, in part, to a failure to recognize the mild case

Summary

1 One hundred one cases of poliomyelitis were admitted to Meadowbrook Hospital in Nassau County in 1948 Of these, 50 were nonparalytic, 24 paretic, and 23 paralytic, 19 had the bulbar form of the disease, two had polioencephalitis There were four deaths

2 The epidemics of 1948, 1944, and 1935 in Nassau County are compared The findings are similar except for age incidence, with 33 per cent adults in 1948, which is three times the adult percentage for 1944 and ten times that for 1935 The mortality for the three years is about the same with 4 per cent for 1948 and 4 7 per cent for 1944. The distribution of cases according to month is similar also, with September having the peak incidence in 1948 and August in 1944

3 The disease was found to be more severe in the adult group, since 39 per cent of the adults either were paralyzed or died, while only 21 per cent of those under twenty years of age were paralyzed and none died

4. The symptoms and signs of the disease are discussed with some emphasis on the psychic manifestations

5 The diagnosis and management is discussed

6 The importance of the early institution of rest is emphasized

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REPORT GOOD RESULTS IN TREATING TOXIC GOITER WITH RADIOIODINE

Patients with toxic goiter for whom surgery, x ray therapy, or antithyroid drug therapy is unsuitable can be treated successfully with radioactive iodine, four Los Angeles researchers reported in the July 30 *Journal of the American Medical Association* Sixteen out of eighteen cases of toxic goiter complicated by heart disease, extreme emotional instability, extreme toxicity, recurrence after surgery of the thyroid, and malignancy of the thyroid were successfully managed by administration of the chemical, according to Myron Prinzmetal, M.D , Clarence M Agress, M.D , Benjamin Simkin, M.D , and H. C Bergman, Ph.D One of the patients still had mild toxic symptoms after treatment, and the patient with a malignant condition showed no significant improvement. Although radiation sickness from larger doses of radioiodine has been reported, no such reaction was observed from doses used in this study, according to the article

Radioiodine therapy has several advantages, the researchers point out It can be administered to patients able to be out of bed without causing them loss of time from work. As compared with antithyroid drugs, the patient does not need repeated laboratory tests and daily medication and is not subjected to the risk of certain unfavorable reactions that occur in some cases The lowest reported mortality rate in thyroid surgery in the postoperative period is 0 5 per cent, but the rate in most institutions is probably higher There has been no death as a direct result of the therapeutic use of radioiodine The cost to the patient of treatment with radioiodine is much less than the cost of operation, and the administration of the chemical is not followed by complications such as postoperative pneumonia, shock, paralysis of the larynx (voice box), unsightly scars, and emotional strain of major surgery

So far, evidence points to a decreased incidence of progressive abnormal protrusion of the eyeball with radioiodine therapy as compared with its incidence with surgery

The new treatment still has several disadvantages, however, the article indicates. The correct dosage of radioiodine is not accurately known. As a result, in some cases months of treatment are necessary before a favorable result is obtained. In other cases, too much of the chemical has been administered with resulting deficient action of the thyroid Further experience should aid doctors to gauge the dosage. Certain unknown dangers from radiation exist, and, as in any new form of therapy, unforeseen difficulties may occur as more cases are treated

A PRACTICAL OPEN-SCALE THERMOMETER FOR TIMING HUMAN OVULATION

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A THERMOMETER is now available specifically for daily measurement of body temperatures by women in determining their time of ovulation and studying ovarian activity, developed to overcome the difficulties with ordinary fever thermometers Its feature is an open scale with about $^1/_2$ inch to each Farenheit degree, permitting precise and easy reading This is effected by a larger bulb and a stem of smaller bore than is used in making fever thermometers It is further unusual in having less than 0 1 degree F error

Accuracy better than 0 2 degree F is not necessary in ordinary clinical thermometry, nor is it practical to make fever thermometers with greater accuracy [1] However, for determining the time of ovulation from changes in body temperature the readings must be precise [2] Previous studies on these changes have disregarded or considered unimportant the accuracy of the thermometers used [3–5] Without being absolutely accurate, a thermometer will show relative temperatures However, it must be possible for one to read it accurately, and the instrument itself must be capable of giving consistent registrations

CS 1-42 of the U S Bureau of Standards, in the directions for testing clinical thermometers, reads in part "In making readings, allowance should be made for the width of the graduation marks the width of a broad mark on a thermometer having 10 degrees F to 1 inch would correspond to about 0 1 degree F"[6] A thermometer with scale so compact may be certified to be accurate, but few patients could read it accurately, even with a magnifying glass

Clinical thermometers certified by the manufacturer to meet the specifications of CS 1-42 are permitted to have errors of 0 2 degree F at 98 and 102 F (0 1 degree C at 37 and 39 C), and repeated registrations at the same temperature may vary 0 15 degree F from each other One test of the capacity of a self-registering thermometer to give consistent registrations is to observe its registration after immersion in a constant-temperature bath, shake it down, reimmerse it, and reobserve its registration [7] The second reading will vary from the first if the constriction is not made correctly [8] To the error due to the constriction will be added those due to parallax and to reading the instrument to only the nearest 0 2 degree F Combined, these errors may be plus or minus 0 3 degree F , making indefinite the ovulatory rise in temperature

More significant than the errors, many women, when asked to take their temperature every day, find they are unable to use an ordinary fever thermometer at all In the past, attempts to improve clinical thermometers have been toward making the mercury readily visible by having a flattened stem, red-reflecting mercury, or special guides indicating the face of the stem These features are helpful to the occasional thermometrist, but women who take their temperature every day quickly learn to find the index, their problem is to read it accurately They are confused by the numbering, or the scale is so compact they can not read it even to the nearest 0.2 degree

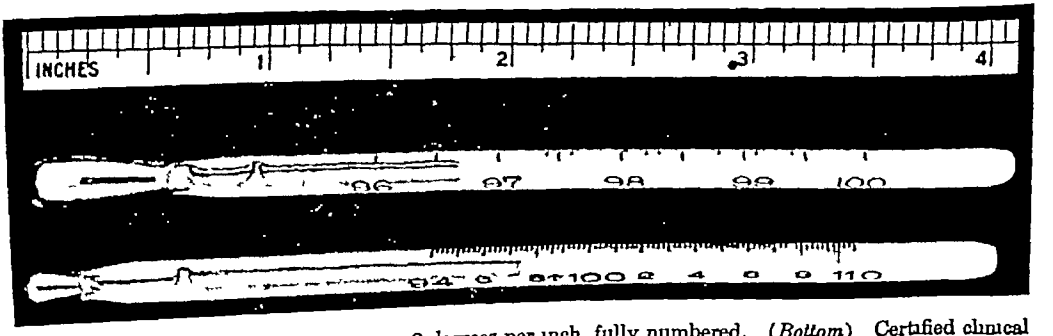


FIG 1 (*Top*) Ovulindex thermometer, 2 degrees per inch, fully numbered. (*Bottom*) Certified clinical thermometer, 9 degrees per inch, even degrees numbered.

F Despite careful instruction, they become discouraged and stop taking temperatures Two fever thermometers, if used simultaneously, may differ from each other as much as 0 6 degree F Breaking a thermometer, which happens frequently in practice, means a patient must use the new one for a few cycles until she has it standardized

Difficulties with fever thermometers led to the design of a special one for the normal range alone (Fig 1) * It is a mercury-in-glass, maximum self-registering thermometer, about 4 inches long, of the same etched-stem pattern as the clinical thermometers used in this country [9] Its special features are contrasted with those of the ordinary fever thermometer in Table 1 Oral readings are usually adequate, but the bulb is blunt enough for rectal temperatures Maximum registration is reached in three minutes, but four should be allowed Basal[5] or standardized conditions *must precede the temperature If the* waking temperature is taken at an hour later than her usual one, a patient should allow for the diurnal variation, subtracting, as a rule, 0 1 degree F from the reading for each one-half hour that she has overslept

The centigrade scale was tried on this thermometer and abandoned The centigrade degree is too large, and when graduated in 0 1 degree (the only practical graduation), it requires interpolation for accuracy A special scale numbered 60, 65, 70, 75, etc (corresponding to 96 0, 96 5, 97 0, 97 5, F etc) can be read and recorded without decimals In time, it may be the most practical.

Seven patients who were unable to use a fever thermometer kept useful records with the "Ovulindex" thermometer It simplifies instruction, and patients are more enthusiastic about using it Twelve subjects, using the "Ovulindex" and a fever thermometer simultaneously, found the "Ovulindex" easier to read and record, and it showed the shift in temperatures at the time of ovulation more clearly

In most women, after eight hours of sleep the oral temperature at 7 30 A M is, on days before ovulation, below 97 5 F and, on days after ovulation, above 98 0 F This uniformity of preovulatory and postovulatory temperatures suggests that they might be used absolutely without graphing them. A "dip," described by some writers as occurring just before ovulation, seems to be an artifact

Since many subjects can be taught to read this thermometer accurately to 0 02 degree F by interpolation and since corrections are available at 97, 98, and 99 F through the serial number, it lends itself to research on body temperatures It *expands the applications of body temperature* observations in the diagnosis of early pregnancy, in the study of corpus luteum activity, and in the management of threatened abortion, as well as in timing ovulation Its advantages are easy readability, increased precision, and interchangeability if a thermometer in use is broken

* Ovulindex thermometer Linacre Laboratories New York.

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TABLE 1 —A Comparison of Ovulindex Thermometers and Fever Thermometers

		Ovulindex Thermometers	Fever Thermometers
Scale	Length	2 to 2¼ inches	1¾ to 2 inches
	Spread	⅛ inch or more per degree	⅒ to ⅕ inch per degree
	Range	96 to 100 F (4 degrees)	Various 92 or 96 to 106 or 110 F (10 to 16 degrees)
	Numbering	*Each* degree *fully* numbered 96 97 98 etc.	*Even* degrees *partially* numbered 94 6 8, etc
	Graduations	*0 1* degree read by interpolation to 0 02 degree	*0.2* degree some scales read by interpolation to 0 1 degree
Accuracy Tests		Correct to *0 1* degree at 97 98 and 99 F	Correct to *0.2* degree at 98 and 102 F *
		Individual readings must not differ more than *0 1* degree from absolute at above points	Individual readings may differ *0.25* degree from absolute at above points*
		Repeat readings within *0 1* degree	Repeat readings within *0 15* degree*

* If certified to conform to Commercial Standards CS 1-42 of the U.S. Department of Commerce for clinical thermometers.

THE FAILURE OF ANTIHISTAMINIC DRUGS TO INHIBIT DIODRAST REACTIONS

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DRUGS administered for therapeutic or diagnostic purposes not infrequently produce untoward reactions In some cases the symptoms may be mere quantitative variations of the normal action based upon the greater or lesser degree of individual susceptibility, in others they may result from improper technic, as the too rapid rate of injection, especially with the intravenous therapy, from impurities (pyrogens) in the solution, or lack of cleanliness in equipment

However, in those cases where symptoms bear no apparent relation to the pharmacologic action of the drug, a qualitative variation, the attempt is often made to explain the reaction on the basis of allergy which properly means an antigen-antibody reaction, and this is especially true when the symptoms exhibit a similarity to such well known allergies as vasomotor rhinitis, urticaria, dermatitis, or asthma However, substantial proof of allergy to drugs of nonprotein nature is rare, although in a few instances antibody to organic compounds and some simple chemicals has been shown by Landsteiner, Kern, Feinberg and Watrous, Sherman, and others [1–4] In the case of biologicals of protein structure the antibody mechanism is not infrequently shown, and the allergic nature of the ensuing reactions is established through such well-recognized technics as the direct or indirect (passive transfer) skin, precipitin, and Schultz-Dale tests In analyzing untoward reactions all the various possibilities mentioned must be considered and, where possible, their nature ascertained, since it is through such knowledge that reactions may be avoided

Although certain mild reactions to intravenous Diodrast are quite common, the severe or fatal ones fortunately are rare, in view of the diagnostic usefulness of this drug Mild flushing of the skin, a generalized feeling of warmth, giddiness, nausea, an occasional sneeze, or a few urticarial lesions occurring separately or in any combination are the common signs and symptoms They are generally not noted on hospital records, hence it is diffiult to obtain accurate statistics on their incidence

The severe reactions give more marked manifestations of the above-mentioned symptoms, and in addition vomiting, angioedema, dyspnea (asthma), shock, and syncope may occur, occasionally ending in death Allergy is the explanation offered for these effects Analysis of such case reports, however, does not reveal adequate reason for suspecting that the reaction was due to allergy, other than that the patient died shortly after the administration of the drug and that there was no other satisfactory explanation [5–10] However, the occasional cases with prompt and serious dyspnea or collapse do resemble the anaphylactic response, and in these an allergic hypothesis may be on a sounder basis Pendergrass *et al* reviewed a large series of intravenous pyelograms and found 11 fatalities following the procedure [8] In seven of the 11 cases, however, critical analysis reveals either insufficient evidence for suspecting an anaphylaxis or other complicating factors, such as high blood urea nitrogens or multiple pulmonary infarctions at autopsy However, two of their patients did have asthma, a typically allergic manifestation, as part of the terminal picture Other reports of fatalities present similar problems as to the allergic bases for the fatality [5–7 9 10]

It would be of inestimable value if a prediction of serious Diodrast reaction could be made By judging published case reports and utilizing accepted procedures of an allergy study, warnings of the difficulty in the use of Diodrast might be found through the use of a careful family and personal history, especially a personal history of asthma, skin, and mucous membrane (eye or tongue) tests, or intravenous trials with minimal and diluted doses of the drug

Studies on the value of these methods have been made, and the results are quite interesting [11–14] About 14 per cent of the patients tested by intradermal injection of Diodrast give a positive reaction [11,13] Sixteen per cent of the patients with a positive skin test and but 4 per cent of the negatives had a systemic reaction to the intravenous administration of Diodrast About 6 to 7 per cent of the patients had a personal history of allergy, and 16 per cent of these had systemic reactions in contrast to about 5 per cent of the negatives Seventy per cent of the patients with both a positive skin test and a history of allergy had systemic reactions

Although these studies are promising, they leave much to be desired Patients with positive

TABLE 1.—REACTIONS TO INTRAVENOUS DIODRAST

	Group 1*	Group 2**	Group 3†	Totals
Total number of patients	108	102	100	310
Total number of reactions	29	34	53	116
Patients having previous administration of Diodrast	17	23	10	50
Patients having reaction on previous administration of Diodrast	4	9	7	20
Patients having reaction on second administration of Diodrast	6	9	9	24
Patients having reaction on both administrations of Diodrast	4	7	7	18
Patients having personal history of allergy	7	17	11	35
Patients with personal history of allergy having reaction to Diodrast	3	11	7	21
Patients with history of allergy having previous Diodrast	2	3	4	9
Patients with history of allergy having reaction to previous administration of Diodrast	0	3	3	6
Patients with history of allergy having reaction on second administration of Diodrast	0	2	4	6
Patients with history of allergy having reactions on both administrations of Diodrast	0	2	2	4

* Patients without antihistaminic premedication.
** Patients premedicated with 100 mg of Pyribenzamine one hour prior to administration of Diodrast.
† Patients premedicated with 50 mg of Trimeton one hour prior to administration of Diodrast.

tests may tolerate the administration of Diodrast without untoward reactions, and the patients with negative skin, eye, tongue tests may show typically anaphylactic reactions and may even die.[6,7,11] In one instance a patient had a fatal anaphylaxis following a small, trial dose of Diodrast intravenously. Testing cannot, therefore, give a definite answer to the problem of Diodrast reaction in the individual case.

Since certain of the reactions to Diodrast could conceivably be of an allergic type, measures used in alleviating known allergic manifestations might be of value in obviating these side-effects.

Recently, a group of drugs called the antihistaminics have been utilized for symptomatic relief of allergic manifestations which are presumed to depend in part on histamine release, and, in addition, they often convey sedative and atropine-like effects. Because of these pharmacologic actions it was felt that they might be of value in obviating the various untoward reactions due to Diodrast. With this in view the following studies were carried out.

A series of 108 consecutive urologic patients who were given Diodrast slowly, intravenously, in the course of diagnostic renal studies were used as a control group. An analysis reveals that 29 patients had untoward side-effects (Table 1). Seventeen patients of the series had had previous intravenous pyelograms with Diodrast, four of whom had mild reactions. These four and two others had mild reactions with the second administration. Seven patients had a history of definitely allergic responses to various known antigens, and of these three had reactions to Diodrast. A breakdown of these various reactions is presented in Table 2. In this series sneezing and urticaria occurs with equal frequency in patients with and without a known allergic background. One patient with negative history and no previous contact developed a shocklike state and fainted a moment after the Diodrast was administered.

Another group of 102 consecutive patients receiving intravenous pyelograms were given 100 mg. of Pyribenzamine by mouth one hour before the administration of Diodrast. Because this study was carried out on hospital patients, mild or moderate drowsiness due to the Pyribenzamine could not be evaluated. However, seven patients complained of nausea before the Diodrast was given, hence they were not included as Diodrast reactions. In this group there was a total of 34 patients having reactions to the Diodrast (Table 1). Of the 23 patients who had previous Diodrast nine gave reactions with the first injection, and seven of them reacted similarly on this second series, even with Pyribenzamine. Seventeen patients of the group

TABLE 2.—TYPES OF REACTIONS TO DIODRAST

Manifestations	Patients Having No History of Allergy				Patients Having History of Allergy			
	Group I*	Group II**	Group III†	Total	Group I*	Group II**	Group III†	Total
Giddiness	1	1	0	2	0	0	0	0
Flushing	5	6	8	19	1	7	2	10
Warmth	12	13	18	43	1	3	4	8
Nausea	12	9	22	43	0	1	1	2
Sneezing	1	2	3	6	0	3	1	4
Urticaria	1	0	1	2	2	2	0	4
Shock	1	0	1	2	0	0	0	0
Syncope	1	0	3	4	0	0	0	0
Dyspnea	0	0	0	0	0	0	0	0

* Patients without antihistaminic premedication.
** Patients premedicated with 100 mg. Pyribenzamine one hour prior to Diodrast.
† Patients premedicated with 50 mg. Trimeton one hour prior to Diodrast.

had a history of allergy, and 11 of these had symptom reactions A breakdown of the reactions reveals that sneezing and urticaria seemed more frequent in the group having allergic histories (Table 2) In general, reactions were more frequent than those seen in the untreated controls No obvious benefit was derived from the premedication with Pyribenzamine

A third group of 100 consecutive patients were premedicated with 50 mg of Trimeton, one hour prior to the intravenous pyelogram, and the results are shown in Tables 1 and 2 Here a total of 53 patients had untoward reactions, four of which were considered quite serious Three patients had syncope shortly after the injection of Diodrast These responded promptly One patient developed shock None showed any sign of asthma Ten patients in this group had had previous intravenous Diodrast, seven had systemic reactions on the first injection, and all seven plus two others reacted again on the second injection Eleven patients had a history of allergy, and of these seven had reactions Trimeton also seemed to have no beneficial effects in warding off reactions to Diodrast

Comment

These three groups of patients, totaling 310, are roughly comparable The controls had fewer side-reactions than either of the two antihistamine groups In order to get a truer incidence of these various reactions, a far larger series would have to be evaluated However, the results are nonetheless interesting Certainly, one cannot deny that a large percentage of patients had untoward reactions of all types, in spite of premedication Urticaria and sneezing, symptoms which, when due to allergy, are most efficiently treated with antihistaminic drugs, occurred in spite of the premedication Although no patient receiving Pyribenzamine showed shock or syncope, one patient, premedicated with Trimeton, did develop shock and three others syncope We have, therefore, no evidence of any real benefit to be derived from routine premedication with antihistaminics given in the hope of obviating untoward reactions It is of interest that none of our patients with or without antihistaminic drugs developed asthma or dyspnea

If one analyzes our group as a whole, certain features may be observed Of the 310 patients 116, or about 37 per cent, had untoward reactions Fifty patients had had previous Diodrast injections, and 20, or about 40 per cent, of these had reactions on the first injection of Diodrast Of the 20 patients who had had previous reactions 18 had a similar response on readministration of the drug Of the 35 patients with a general history of allergic manifestation, 21, or about 60 per cent, had a reaction in contrast to the 275 nonallergics with 95 reactions (32 per cent) The higher incidence of reactions where there is a history of previous reaction or especially where there is a personal history of allergy is noteworthy There was also a strong correlation in our group between the types of reactions, that is, a patient having nausea on one injection of Diodrast was quite likely to be nauseated by a second trial of the drug Utmost care should be exercised in administering Diodrast to patients with a personal history of allergy, especially asthma, and most particularly if there has been a reaction to the drug on previous contact Symptoms such as sneezing, urticaria, and shock occurred about equally in allergic and nonallergic persons and on first or multiple injections of diodrast, and, therefore, no conclusion can be drawn about the cause of these manifestations in this group

Summary

1 The nature of reactions to intravenous Diodrast was reviewed The evidence that, for the most part, they are allergic is not convincing, although allergy to iodine is recognized

2 Three groups of patients receiving Diodrast in the course of intravenous pyelography were analyzed Two of the three groups had premedication with a known potent antihistaminic drug Premedication with Pyribenzamine or Trimeton did not seem to influence the incidence, severity, or type of reactions to Diodrast

3 Patients having multiple injections of Diodrast, particularly that group having previous reactions, were most apt to have reactions Patients with a personal history of allergy, especially asthma, were also more apt to have reactions than patients without such a history

4 Skin or mucous membrane tests do not appear reliable Patients with positive test may tolerate the drug without ill effect Those with negative skin tests may have fatal reactions

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HIGH CERVICAL ESOPHAGOGASTROSTOMY FOR CARCINOMA OF THE CERVICAL ESOPHAGUS EXTENDING INTO THE SUPERIOR MEDIASTINUM. VALUE OF A RIGHT-SIDED COMBINED THORACO-ABDOMINAL APPROACH

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ALTHOUGH the patient referred to in this report expired on the fourth postoperative day, certain observations made during the course of the operation, during the postoperative period, and at autopsy may be of value to other surgeons interested in the surgery of lesions involving the midcervical esophagus with extension into the superior mediastinum. Malignancies limited strictly to the cervical esophagus may be managed successfully by the procedure described by Wookey and more recently by Watson and Pool.[1,2] However, as will be brought out in this case, the carcinoma of the midcervical esophagus was found at exploration of the neck to extend 3 cm. into the superior mediastinum. It seemed unlikely that a satisfactory margin below the tumor could be developed by the cervical approach alone. For that reason, a right transthoracic approach with an abdominal extension was employed to bring the stomach through the thorax into the neck and anastomose it on the right side to the stump of esophagus 1 cm. from the hypopharynx. The patient withstood the procedure well, his condition remained excellent for seventy-two hours, but evidence of patchy atelectasis and pneumonia developed which failed to respond to intratracheal suction and death occurred on the fourth postoperative day.

Case Report

T. R., a fifty-six-year-old hospital engineer, entered the New York Post-Graduate Hospital on July 23, 1948, complaining of difficulty in swallowing solid food, of five weeks duration. A barium swallow revealed a filling defect 2 to 3 cm. from the epiglottis, interpreted to be a malignant lesion. Prior to admission, Dr. Milton Schlesinger had performed an esophagoscopy and estimated that the upper end of the lesion was 3 cm. below the hypopharynx. The biopsy proved the lesion to be a squamous cell carcinoma. Four weeks elapsed between the time of the esophagoscopy and the third operation to be described below, at which time the near total esophagectomy was performed. At this operation a margin of 1 cm. was allowed above the lesion, and at autopsy only 1 cm. of esophagus remained above the esophagogastric anastomosis. The discrepancy between the esophagoscopy and the operative and autopsy findings may possibly be explained by the extension of the lesion during the lapse of four weeks.

Following admission to the hospital, the patient was given a high-vitamin, high-protein diet, and a Witzel jejunostomy was carried out through a left rectus muscle-splitting incision on the fourth hospital day. Postoperatively, a moderately severe mucopurulent tracheobronchitis developed which cleared without specific treatment in three or four days. On August 4, the ninth day after the jejunostomy, the cervical esophagus was explored by the method described by Wookey. A large skin platysma flap, based on the right side of the neck, was fashioned, the right sternocleidomastoid muscle removed and the neurovascular bundle mobilized by dividing the superior and inferior thyroid arteries and the lateral thyroid vein. The esophagus was partially mobilized and carefully palpated. A firm, smooth tumor mass could be felt to extend from the lower border of the thyroid cartilage to a point 3 cm. below the suprasternal notch. Although the upper limit presented no problem, we believed that the caudad extension of the carcinoma was beyond the level at which a resection by the method of Wookey was possible. Therefore, the wound was closed by replacing the flap.

It was fortunate timing that a paper by Macmanus appeared shortly before this patient presented himself.[3] Macmanus described a technic in which lesions of the midthoracic esophagus may be satisfactorily handled through separate abdominal and right transthoracic incisions either in one or two stages. Macmanus gave credit to Lewis as the originator of this approach.[4] Another helpful factor was the personal communication from Dr. Wylie that he and Berry had carried out successfully an esophagastric anastomosis on the left side of the neck for lesions extending as high as the midcervical esophagus by a left-sided transthoracic approach.[5] They brought the stomach up behind the arch of the aorta after mobilizing the descending part by dividing two sets of intercostal arteries. One of their patients expired on the third postoperative day from pulmonary complications, while the other completely recovered and has done well for several months.

On August 11, 1948, one week after the cervical exploration, the esophagectomy was carried out. Preliminary streptomycin, 0.5 Gm. intramuscularly four times a day, was administered for thirty-six hours and penicillin 300,000 units intramuscularly every four hours during the same period. The patient was placed on his left side with the right side up, tilting backwards 30 degrees. The right pleural space was entered through the bed of the resected seventh rib, and excellent exposure was obtained by

fracturing the sixth and eighth ribs The incision was carried through the costal arch across the right rectus muscle to the linea alba, midway between the umbilicus and xiphoid. The diaphragm was divided from the point of its attachment to the costal arch to the inferior vena cava After division of the azygos vein and incision of the mediastinal pleura, the entire thoracic esophagus was readily seen Complete mobilization of the upper third of the thoracic esophagus was carried out well into the lower part of the neck The stomach was mobilized with care to preserve all of the vessels along both curvatures, dividing the left gastric artery near its origin from the celiac axis The gastrohepatic ligament was divided, preserving the right gastric artery The first and second portions of the duodenum were mobilized so that the only restraining structures appeared to be the hepatic and right gastric arteries and the common duct The pyloric ring was elevated to the level of the diaphragm without tension

Following mobilization of the stomach, the esophagus was divided just above the diaphragm and the distal end pulled through, cut flush with the stomach, and inverted in two layers by a continuous catgut suture and interrupted cotton sutures The esophageal hiatus was closed with several interrupted sutures of cotton The entire thoracic esophagus was then mobilized Two sutures, left long at the apex of the cardia, were tied to the lower end of the mobilized esophagus and the cardiac end of the stomach placed at the apex of the thorax. The diaphragm was closed snugly around the pylorus, and several sutures were taken between the diaphragm and pylorus to prevent tension or rotation. On expansion of the right lung, the stomach lay behind it and did not seem to interfere with its expansion or motion. The incision was closed in layers with cotton and two pericostal sutures of number 2 chromic catgut were also employed. A rubber mushroom catheter was placed through the ninth interspace in the midaxillary line for underwater drainage One hundred cubic centimeters of saline with 1 Gm. of streptomycin and 100,000 units of penicillin were placed in the pleural space

The patient was placed on his back, and the skin platysma flap, fashioned at the time of the cervical exploration, was elevated. The thoracic esophagus and the cardiac end of the stomach were drawn into the neck. By sharp and blunt dissection, the entire cervical esophagus was mobilized. There was one point of adherence between the growth and the posterior aspect of the trachea 2 cm below the cricoid cartilage Sharp dissection separated the two structures, but subsequent examination of the trachea at autopsy revealed two or three nests of malignant cells microscopically Prior to division of the esophagus above the lesion, the first row of the posterior suture line was placed between the stomach and esophagus, employing fine interrupted cotton sutures The esophagus was partially cut across, the stomach opened, and a second row of interrupted cotton sutures was placed. A number 20 French Levin tube was passed from the nose down through the anastomosis into the stomach. The anterior portion of the anastomosis was completed in similar fashion, employing two layers of interrupted cotton sutures. The esophagus was divided 1 cm. above the lesion, and it was estimated that 1 cm. of esophagus remained Postmortem examination confirmed the accuracy of this estimate. The stomach was sutured at several points to the prevertebral fascia, the right lobe of the thyroid, and the fascia around the neurovascular bundle The color of the entire stomach was excellent, except for a cyanotic zone 2 cm. broad at the apex. On incising the stomach for the anastomosis, active bleeders requiring clamping and tying were noted The skin platysma flap was sutured in place after 30 cc of saline with 1 Gm. of streptomycin and 100,000 units of penicillin had been placed in the wound and a thin strip of rubber tissue placed in each corner of the wound for drainage The entire procedure required seven and one-half hours and 2,000 cc of blood were given.

Postoperatively, the patient was placed on oxygen administered by a nasal catheter, continuous suction was applied to the Levin tube and the chest catheter attached to underwater drainage Streptomycin, 0 5 Gm., and penicillin, 300,000 units, both administered every four hours intramuscularly, were resumed postoperatively The patient's course was entirely uneventful for seventy-two hours Temperature averaged 101 6 F rectally, the pulse 110 per minute, and respirations 33 per minute There was no cyanosis, and the breath sounds came through satisfactorily over both lung fields. A portable chest plate showed no evidence of mediastinal shift and the tip of the Levin tube was near the pylorus. The catheter into the right pleural space was removed on the second postoperative day, having drained less than 100 cc of bloody fluid The patient was able to talk only in a whisper for two days, but then his voice returned rapidly toward normal Intratracheal aspiration by a catheter passed through a nostril was carried out daily, but little material was present until the evening of the third postoperative day when the temperature rose to 103 F , pulse to 120, and respirations to 40, and moderate cyanosis developed The Levin tube was removed and the trachea aspirated again Temporary improvement was followed by deterioration of his condition the next morning, and, in spite of further aspiration, the patient expired, apparently from pulmonary insufficiency, at noon on the fourth postoperative day

Autopsy was limited to the operative areas without removal of other organs There were 650 cc of bloody fluid in the right pleural space The anastomosis was clean, healing well with complete viability of the stomach The mucosal surface of the stomach at the site of inversion of the esophagus showed some superficial erosions. As stated above, only 1 cm. of esophagus remained below the hypopharynx (Figs. 1 and 2) The pyloric ring lay 2 cm. below the diaphragm and showed no evidence of kinking or constriction The trachea at the point of adherence revealed two or three nests of tumor cells on microscopic study The lungs showed patchy areas of atelectasis and bronchopneumonia throughout with moderate edema of both lower lobes The heart was not examined because of restriction imposed by the permission for autopsy



FIG 1 Photograph showing the epiglottis, hypopharynx, esophagus, stomach, and duodenum The top arrow points to the epiglottis, the middle arrow to the operative anastomosis between the esophagus and the stomach, and the bottom arrow to the pylorus



FIG 2 The close-up photograph, the upper arrow of which shows the epiglottis, the lower arrow points to the operative anastomosis between the esophagus and the stomach

Comment

During the management of the case reported in this paper, certain observations were made which may be useful to other surgeons interested in the surgery of lesions lying low in the cervical and high in the thoracic esophagus

Favorable Factors —First, the combined thoracoabdominal incision on the right side through the bed of the seventh rib carried across the costal arch to the linea alba provides excellent exposure of the entire esophagus and stomach Second, by mobilizing the left lobe of the liver and the first and second portions of the duodenum, the stomach can be brought in a straight vertical line in the shortest possible distance to the neck In fact, the apex of the cardia will easily reach the tip of the mastoid process There was no tension on the stomach or duodenum when the anastomosis was carried out between the 1-cm stump of cervical esophagus and the apex of the cardia at a level above the thyroid cartilage Third, as Lewis pointed out, the possibility of entering the left pleural space, when mobilizing the esophagus, is much less with the right transthoracic approach than the danger of entering the right pleural space when the left side is employed Fourth, there was no need to mobilize the aorta when the approach was on the right side Fifth, by tying the mobilized, cut distal end of the esophagus to the apex of the cardia, no difficulty was encountered on drawing the stomach into the cervical wound following closure of the chest

Unfavorable Factors —The problem, emphasized by Lewis and by Wylie and Berry, of keeping the tracheobronchial tree free of secretions is a serious one [4,5] The larynx and trachea suffer considerable trauma during mobilization of the esophagus, which, added to a long period of anesthesia with an endotracheal tube and an inlying Levin tube for gastric suction postoperatively, provide the bête noir of this operative procedure It was the opinion of all physicians concerned with

this patient that he nearly made a full recovery from the operation, and the only postoperative problem was the accumulation during the first three postoperative days of small amounts of secretion sufficient to account for the development of a patchy atelectasis and then a bronchopneumonia which resulted in his death One means which might have prevented this unfortunate outcome would have been a tracheostomy at the completion of the anastomosis In that way, repeated suctioning could have maintained a clear tracheobronchial tree and, hence, less chance for the development of a patchy atelectasis Watson and Pool discuss favorably the desirability of a tracheostomy in local removal of the cervical esophagus, as does Wookey [2,6]

One other problem presented by this patient requires solution The esophageal cancer was adherent at one point to the trachea Radical laryngectomy, including a segment of trachea, in addition to the extensive procedure of esophagectomy would be considerably more formidable Further, speech would be lost without either a larynx or esophagus On the other hand, the possibility of excising a small segment of the tumor-bearing trachea, followed by end-to-end anastomosis, might be worth while if technically feasible In dogs, resection of segments of trachea up to 1 5 cm , followed by end-to-end anastomosis employing a continuous everting mattress suture of 0000 silk, has been uniformly successful [7] In one animal only was there slight narrowing at the anastomotic site

Although the patient in this report sought medical aid within four weeks of the onset of his symptoms and although the lesion was resected within another four weeks, there was extension of the growth beyond the confines of the esophagus. Once again, it is clear that patients must be educated to report promptly within one or two weeks of the onset of symptoms, and the time between the initial examination and definitive surgical removal must be shortened considerably if resectable, curable lesions are to be found

Summary

A patient with carcinoma of the esophagus involving the cervical and upper thoracic region, in which the stomach was anastomosed to the cervical esophageal stump 1 cm from the hypopharynx on the right side, is presented The favorable factor of the right-sided combined thoracoabdominal approach is discussed The unfavorable aspect of the problem of postoperative atelectasis and pneumonia developing during the early postoperative period and resulting in death of the patient is considered and analyzed as the most important problem remaining to be solved in surgery of the cervical and upper thoracic esophagus.

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"DOCTOR JONES" SAYS—

This session we've been having with polio—it sort of set me thinking back When our big epidemic started, in 1916, and spread over the country, it'd been creeping up on us for a long time. The disease had been described way back in 1840 It must've existed long before that In fact Sir Walter Scott, in 1773, when he was two years old, had what, from the description, probably was polio Two Swedish doctors had reported localized epidemics in 1890, and, somewhere around that time, a few outbreaks were reported in our New England states

Along about 1910 the disease began perking up From then through 1914 nearly 19,000 cases were reported in this country In 1916 our New York State epidemic started, in early summer, in and around New York City It gradually spread up the Hudson and then, along the main lines of travel, out toward the Western part of the State.

In the years since then when polio has been unusually prevalent—'44, '45, and '48—places that'd been involved in previous epidemics seemed to be more or less immune, and it's been mainly in new places Another interesting thing in all those years, including 1916, the epidemics have lighted up in July and dropped off in October "Why?" Well, I haven't heard anybody say In between times, of course, there've always been cases, the year around

To most folks, in 1916, polio was a new disease and, when they saw it spreading, they got panicky Mostly, I think, it was that name "infantile paralysis" It was what you might call alarmingly misleading The majority weren't infants and weren't left with paralysis Since we've gotten better acquainted with poliomyelitis—well, it's some like a horse I had once If he saw a newspaper in the road he was ready to climb a tree When I got him up where he could get a good look at it he discovered that, while it maybe wasn't a paper he favored, it was, after all, just a newspaper —*Paul B Brooks, M.D , September 12, 1949*

CANCER AND CARDIOVASCULAR DISEASES

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SINCE in humans both cancer and cardiovascular diseases are observed in an increasing frequency from youth to old age, investigation of the occurrence of hypertension and coronary disease in association with cancer appears to be of interest

Cancer and Hypertension

Histories of cases of cancer of a certain period were taken from the files, and the age and sex distribution and the blood pressure readings were tabulated. From the same period histories of noncancerous patients were taken at random Attention was paid only to an age and sex distribution similar to that of the former group, and age and sex distribution and blood pressure readings were again tabulated (Table 1, Fig 1)

The table shows that in all age groups of both sexes, with a blood pressure reading of 140 mm. and over being considered hypertensive, hypertension was found in 13 out of 68 cases of cancer (19 per cent) In the control group of the same number of patients and the same age and sex distribution there were 29 cases of hypertension (43 per cent) Among men in the cancer group the number of hypertensives was eight out of a total of 35, and in the control group it was 17 out of the same total of 35 Among women, out of 33 cases there were five hypertensives in the cancer group and 12 in the control group Infrequency of hypertension in cancer is apparent also when a single age group of either men or women is considered For example, among 16 men in the age group of fifty to fifty-nine years, four are hypertensive in the cancer group and eight among the controls Preponderance of relatively low blood pressure in cancer is noted also when various blood pressure levels of the two groups are compared Out of 68 cases of both sexes and all ages the systolic blood pressure reading was less than 120 mm in 22 cases of the cancer group and in 12 cases of the control group A blood pressure reading of 160 mm or higher was obtained in seven cases of the cancer group and in 14 cases of the control group

Tabulation of the diastolic blood pressure (Table 2, Fig 2) showed an even greater preponderance of relatively low blood pressure in cancer A diastolic blood pressure of 90 mm or higher occurred six times out of 68 cases of cancer (9 per cent) and 21 times in 68 control cases (31 per cent) In the men diastolic blood pressure of 90 mm or higher was found in five out of 35 cases of cancer and in 13 out of 35 control cases In women diastolic blood pressure of 90 mm. or higher was observed once in 33 cases of cancer and eight times in 33 control cases In cancer a diastolic blood pressure higher than 110 mm was not observed at all while it occurred in three (all men) of the control group

Cancer and Coronary Disease

Similar to the relative infrequency of hypertension is the relative infrequency of coronary disease in cancer In the cases of cancer which are under discussion here, coronary disease appears in the history of two patients (one man and one woman), while in the control group it appears 13 times (11 men and two women)

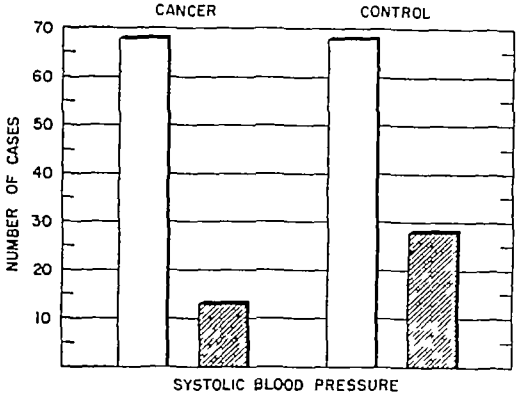
Comment

It appears that such cardiovascular diseases as arterial hypertension and coronary disease occur in a frequency which is considerably smaller in cancer than in the control group In other words, it appears that cancer is negatively associated with cardiovascular diseases. In support of this finding the following experimental and statistical observations can be cited

A cystine-poor diet protects mice from the development of induced leukemia (it occurred in 10 per cent of the animals) but is associated with frequent occurrence of sclerosis of the aorta (in 80 per cent of the animals) A high cystine diet on the other hand affords no protection from leukemia (it occurred in 90 per cent of the animals), but sclerosis of the aorta is absent [1] Attention is called to the fact that induced leukemia in animals is a condition closely related to neoplasms

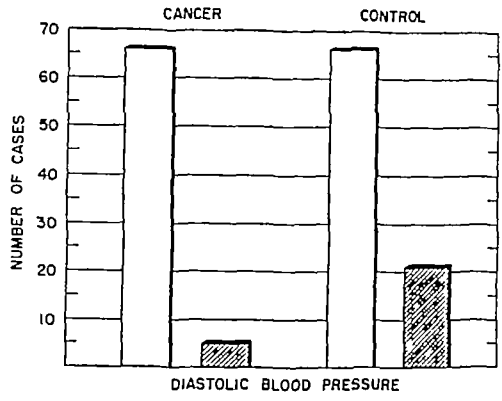
The negative association between cancer and cardiovascular diseases described in this paper was found when patients, representing the varied diseases occurring in practice, were used as controls It is noteworthy that the negative association between cancer and cardiovascular disease is found also when the control group consists of cases of diabetes, syphilis, and tuberculosis exclusively [2]

When an interpretation is attempted, the first thought is that lowering of the blood pressure level may be caused in cancer by the characteristic malnutrition (cachexia) Such a theory would be unsatisfactory because it would not add to the understanding of the mechanism which leads to low blood pressure in cancer It would



□—All cases
▨—Blood pressure 140 mm or more

FIG 1



□—All cases
▨—Blood pressure 90 mm. or more

FIG 2

TABLE 1.—NUMBER OF CANCER PATIENTS WITH HYPERTENSION (SYSTOLIC)

Age (Years) From	To	Cancer — Systolic Blood Pressure (Mm.) Less than 100	100 to 119	120 to 139	140 to 159	160 to 179	180 and up	Control — Systolic Blood Pressure (Mm.) Less than 100	100 to 119	120 to 139	140 to 159	160 to 179	180 and up
		Male						Male					
30	39			1						1			
40	49	1	3	2					2	2	1	1	
50	59		5	7	3		1		2	6	6	1	1
60	69	1	1	2	1	1	2		2	2	1	2	1
70 and up			1	3						1	1		2
Total		2	10	15	4	1	3		6	12	9	4	4
		Below 140 mm. 27			140 mm. or more 8			B P below 140 mm. 18			B P 140 mm. or more 17		
		Female						Female					
20	29			3					1	2			
30	39		2	3					2	1	1		
40	49		5	4					2	6	1		
50	59		2	5		1		1	1	2	2	1	1
60	69		1	4			1			3	2	1	
70 and up					2	1						1	2
Total			10	18	2	2	1	1	6	14	6	3	3
		Below 140 mm. 28			140 mm. or more 5			Below 140 mm 21			140 mm or more 12		
Total male and female		2	20	33	6	3	4	1	11	25	18	5	5
		Below 140 mm. 55			140 mm. or more 13			Below 140 mm 39			140 mm. or more 29		

TABLE 2.—NUMBER OF CANCER PATIENTS WITH HYPERTENSION (DIASTOLIC)

Age (Years) From	To	Cancer — Diastolic Blood Pressure (Mm.) 60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 and up	Control — Diastolic Blood Pressure (Mm.) 60 to 69	70 to 79	80 to 89	90 to 99	100 to 109	110 and up
		Male						Male					
30	39		1						1				
40	49	2	2	2					1	3	1	1	
50	59	1	4	7	1	3		2	2	6	2	3	1
60	69		2	5		1		1	1	2	3		1
70 and up		3	1					1		2			1
Total		6	10	14	1	4		4	4	14	6	4	3
		Below 90 mm. 30			90 mm. or more 5			Below 90 mm. 22			90 mm. or more 13		
		Female						Female					
20	29			2	1				1	2			
30	39	1	1	2				1	1	1	1		
40	49		3	6				1	1	6	1		
50	59		1	7					2	3	2	1	
60	69		2	4					1	4	1		
70 and up			2	1					1			2	
Total		1	9	23	1			2	7	16	5	3	
		Below 90 mm. 32			90 mm. or more 1			Below 90 mm 25			90 mm. or more 8		
Total male and female		7	19	36	2	4		6	11	30	11	7	3
		Below 90 mm. 62			90 mm or more 6			Below 90 mm. 47			90 mm. or more 21		

merely substitute one unknown for another, and it is contradicted also by actual observations These show that in individuals in whom blood pressure readings were obtained throughout years, blood pressure readings low in relationship to the age of the patient were found several years prior to the appearance of cancer

Case 1—A. H died from cancer of the prostate at the age of fifty At the age of forty-three, his blood pressure was 110/60 mm , and at the age of forty-six the blood pressure was 104/70 mm.

Case 2—G W had cancer of the rectum, discovered at the age of fifty-nine Blood pressure at that time was 120/70 mm. At the age of fifty-six, his blood pressure was 104/50 mm.

Case 3—A. H. had cancer of the pancreas, discovered at the age of sixty-two At that time the blood pressure was 140/80 mm. At the age of fifty-nine the blood pressure was 88/60 mm.

Case 4.—S F had gastric cancer discovered at the age of one hundred one Blood pressure at the age of ninety-eight was 130/70 mm

Case 5—B S was found to have lung cancer at the age of seventy-four Blood pressure at that time was 150/80 mm. At the age of sixty-four the blood pressure was 126/74 mm.

In several cases simultaneously with progression of cancer or after palliative surgical operation the blood pressure even increased

Case 6—N K. noted the first symptoms of pancreatic cancer at the age of fifty-four At that time body weight was 176 pounds, blood pressure 142/100 mm. At the age of fifty-six in a worse condition, the weight was 164 pounds and blood pressure 158/-100 mm.

Case 7—E L , age sixty-seven, had a retroperitoneal sarcoma Blood pressure before surgical exploration was 138/80 mm. Five days after laparotomy the blood pressure was 170/90 mm.

Case 8—E B , age forty-eight, had cancer of the breast Body weight was 125 pounds Blood pressure was 120/80 mm. Three months following mastectomy and at the time of discovery of lung metastases, the weight was 117 pounds and blood pressure was 160/90 mm

Another explanation which may be advanced is that hypertension and coronary disease is relatively rare in cancer because cancer causes death before elevated blood pressure and coronary disease could have developed There is no evidence to support the inference that cancer develops at an earlier age than hypertension and coronary disease In fact, according to recent statistical evaluation of obituaries of physicians published in the *Journal of the American Medical Association* in 1948, the average ages at death were sixty-five and six-tenths years for coronary occlusion and sixty-seven and four-tenths for cancer and other malignant tumors The implication that death from cancer occurs at an earlier age than from cardiovascular diseases is further invalidated by the method which is here applied in selecting controls They represent age groups identical to those found in cancer

It seems that one must look in another direction for an answer to the question here raised A working hypothesis which offers an explanation of this and other problems of cancer will be the subject matter of another paper

If the observations which are here described are confirmed on large material, it appears that it will be possible to use arterial hypertension and coronary disease as a differential diagnostic sign inasmuch as the presence of one or the other of these diseases in doubtful cases would seem to make the occurrence of cancer improbable

Summary

1 Systolic and diastolic blood pressures are relatively low, and hypertension is infrequent in cancer

2 Coronary disease is infrequent in cancer

898 Park Avenue

References

1 White, J Mider, G B and Heston W E J Nat Cancer Inst. 4 409 (1944)

2 Jacobson H Milbank Mem. Fund Quart 26 90 (Jan.) 1948.

STATE DEATH RATE DROPS TO 10 8, A RECORD LOW

The State Health Department has reported that there were fewer deaths from most of the leading causes of death, especially heart disease, pneumonia, tuberculosis and nephritis, during the first six months of this year, as compared with corresponding period last year

The total death rate was 10 8, lowest ever experienced in the State

New low records were established by infant mortality, twenty-seven deaths to 1,000 live births, and maternal mortality, eight deaths to 10,000 liver and stillbirths.

During the first six months of the present year, 150,000 births were recorded in New York State, which was more than in the corresponding months of any previous year, except 1947, when the number was greater by 19,000 The birth rate for January to June, 1949, was 20.5 per 1,000 population, and, except for 1947, the highest in a quarter of a century—*Herald Tribune, August 29, 1949*

CLINICOPATHOLOGIC CONFERENCES

FOURTH MEDICAL DIVISION OF BELLEVUE HOSPITAL, NEW YORK CITY

Date December 8, 1948

Conducted by Maurice Goodgold, M D

Mediastinal Cystic Necrosis of the Aorta and Dissecting Aneurysm with Rupture into the Pericardial Sac

THIS is the history of a thirty-nine-year-old Negro woman who was admitted to Bellevue Hospital November 2, 1948 At the time of her admission, she complained of pain in the abdomen and chest which persisted for three days Her illness was manifested by a sharp precordial pain immediately following a period of military drilling There was no radiation of the pain to either her back or arms However, marked weakness and fatigue were associated with the pain Shortly afterward, abdominal discomfort was noted Subsequently, the pain became localized in the right upper quadrant of the abdomen. The patient attended various clinics in connection with her complaint but was told there was nothing wrong Nevertheless, the pain became progressively worse and was aggravated by respiration On the third day of her illness, the pain in the right upper quadrant of the abdomen became increasingly severe and radiated to the right costovertebral angle The patient consulted her local physician who administered 100 mg of Demerol by hypodermic injection Immediately thereafter, she became nauseated and vomited In the act of vomiting, she was seized with a severe, crushing, suffocating pain in her chest associated with marked dyspnea Immediate hospitalization was advised

The history of the patient also reveals she had hypertension for a number of years Her systolic blood pressure varied from 180 to 160 mm and her diastolic blood pressure from 130 to 120 mm. She had no history of any previous chest pain or anginal syndrome Neither did she have any history of congestive heart failure as manifested by dyspnea, orthopnea, paroxysmal nocturnal dyspnea, or edema However, she was treated for persistent headaches She lost ten pounds in approximately three months

She had no chills, fever, or night sweats She did, however, have a chronic cough and brought up small amounts of yellowish-green sputum daily During the first few days of her illness, she coughed up approximately a teaspoonful of blood daily She was also afflicted with tuberculosis about ten years prior to her present illness and was confined to a tuberculosis hospital, from which she was discharged as an arrested case after treatment extending over a period of fourteen months

The patient suffered from chronic constipation Prior to her admission, she had no bowel movements for two days The use of a saline cathartic to overcome her constipation brought about blood streaks in the stool Her record, however, is devoid of any bloody or tarry stools on other occasions

Her menstrual history reveals the patient to have had regular periods and normal flow Her last period occurred one week prior to her admission. She was gravida II Para 1 A therapeutic abortion was performed one year prior to her admission because of her hypertensive condition

While the patient was under examination in the admitting office, she showed no symptoms of acute distress Subsequently, however, on examination in the medical wards, she was found to be cold, clammy, sweating profusely, and in a semicomatose state Her temperature was 101 F , and her blood pressure was unobtainable The pulse was barely perceptible The heart rate was rapid, and the sounds were distant The abdomen was slightly tender

Laboratory data on admission revealed the urine to be yellow in color with a specific gravity of 1 020, a pH of 4 0, and one plus albumin The urine contained no sugar, and there were one to three white blood cells but no red blood cells per high power field on microscopic examination The hemoglobin was 13 Gm , red blood count was 4,820,000, white blood count was 6,500 with 10 per cent band forms, 57 per cent polymorphonuclears, 32 per cent lymphocytes, and 1 per cent eosinophils The electrocardiogram showed a Q_3, T_3 pattern without an S_1 There was an inverted T in V_1 The unipolar limb leads were normal

Fifteen hundred cubic centimeters of plasma were administered intravenously during a period of a few hours Morphine and nasal oxygen were also given The patient responded to this therapy Her blood pressure rose to 120/50, and her pulse became fully perceptible but remained rapid Surgical consultation was

obtained The consultant stated that her pathology could be explained on the basis of some gynecologic condition However, this opinion was not supported by further consultations with the gynecologic service Examination of the patient by the latter service showed that she had deep tenderness in the lower abdomen and a tender palpable right ovary There was no mass in the cul-de-sac

On the following day the laboratory data were as follows red cells 3,670,000, white cells 12,750 with 4 per cent band forms, 70 per cent polymorphonuclears, 25 per cent lymphocytes, and 1 per cent monocytes, erythrocyte sedimentation rate 80 mm per hour, serum amylase 184 units The blood Wassermann reaction was negative A portable x-ray of the chest revealed the presence of an enlarged heart Free fluid or pneumothorax was not noted

The patient appeared comfortable The blood pressure was 120/80, the pulse was 180 per minute and regular, the respirations were 16 per minute, and the temperature was 102.8 F The head was normal Examination of the eyes revealed the sclerae to be clear The pupils were round, regular, and equal and reacted well to light and accommodation. The extraocular muscles were normal as were the fundi The pharynx was injected, and the tonsils were enlarged and inflamed The neck was supple, the trachea was in midline, and the thyroid was normal. The breasts were normal. Examination of the lungs revealed diminished breath sounds at the right base where rhonchi and postussis rales were heard There was suggestive bronchial breathing over the right midlung field Occasional fine crepitant rales were heard at the left base posterior The heart was enlarged, and the point of maximum impulse was felt at the sixth intercostal space at the anterior axillary line. No thrills were felt, and the rhythm was regular The heart sounds were of good quality The second pulmonic sound was tambour-like in quality and was greater than the second aortic sound No murmurs were heard. The abdomen was slightly distended. There was deep and rebound tenderness in the right upper quadrant of the abdomen The liver, spleen, and kidneys were not palpable The bowel sounds were present There was marked right costovertebral angle tenderness There was no edema of the extremities The dorsalis pedis pulsations were normal, and neither a Homans nor a Moses sign could be elicited

There was no change in the patient's condition during the next few days except for a drop in the temperature to normal on the fourth day of hospitalization On the morning of the fifth day, the patient menstruated No clots were noted The abdominal pain persisted but was not as marked as on previous days A second gynecologic consultation was had Tenderness was found in the right upper quadrant of the abdomen and at McBurney's point No distinct masses could be felt Pelvic examination revealed blood oozing from the cervical canal No erosion was seen. The cervix was smooth, firm, and slightly tender There was a tender mass present close to the right cornu of the uterus This was felt halfway up to the umbilicus but could not be outlined distinctly The left side was negative Surgery was considered, but before any steps could be taken the patient had a mild paroxysm of cough She sat up in bed and had convulsions, opisthotonos was noted, and she died suddenly There was no terminal episode of hemoptysis Postmortem physical examination revealed the presence of an enlarged tense abdomen.

Discussion

DR. ARNOLD KOFFLER The diagnostic problem presented by this case is extremely complicated ' The symptoms presented in the protocol may be divided into those referable to the chest and to those chiefly abdominal The only common ground on which we will try to make a simple diagnosis to fit these two groups of symptoms is on the basis of hypertensive cardiovascular disease We know this patient has had hypertension for a number of years, and we also know she did something very ill-advised She did some drilling, however extensive that may have been, and, immediately following this, had an episode of pain in the chest The natural thing to infer from this is that she had a coronary thrombosis with or without myocardial infarction This apparently was not too severe in character Evidently she had been able to be up and about and visited clinics because of the pain which appeared originally in the chest and subsequently in the abdomen The principal complaint, however, was of pain in the right upper quadrant There were no associated gastrointestinal symptoms

Following her rounds of private doctors and clinics, she had another episode which followed the administration of Demerol Demerol may make one vomit However, that was not the reason for the excruciating pain in the chest This apparently frightened the doctor, and he sent her to the hospital When she was admitted to the ward, the symptoms were not limited to the chest, but were in the abdomen chiefly

Our first differential diagnosis is whether or not this person had a coronary thrombosis She may have had an attack of angina at first, as

that pain was not too severe The subsequent pain was excruciating in character, and, therefore, she was admitted to the hospital Following her history in the ward, we find that at no time was there any characteristic radiation of the pain While she had some temperature, she had no leukocytosis, and the electrocardiographic pattern described here certainly was not characteristic of an acute episode She had the so-called "Q_3, T_3" pattern which may be present in hypertension without any coronary thrombosis She had an upright T_1 and a slightly inverted T_2 which might have been part of this picture and predated this episode Certainly this is not the picture of an acute coronary thrombosis

Another possibility, in view of our experience in recent years in thromboembolic phenomena, is pulmonary embolism The "Q_3, T_3" pattern is the type of electrocardiogram you expect to find, but there should have been a deep S in lead I which is not present in this case However, I do not think you can completely dismiss this possibility because the findings in pulmonary infarction are often very transient

Upon admission to the hospital the severe pain in the patient's chest had subsided, and she was relatively comfortable in the admitting office Between the time she was admitted and the time she arrived on the ward, something happened which threw her into acute shock. Her pulse was imperceptible She was cold and clammy

I will try to analyze the cause for shock in this case Since the pain was chiefly in the chest, the possibility of collapse from coronary thrombosis must be considered In spite of the electrocardiographic findings, this cannot be completely dismissed

It is also possible that the cause of the persistent abdominal pain produced shock Analyzing this, I have considered first the possibility of acute pancreatitis This will produce severe pain in the abdomen, sometimes radiating to the right upper quadrant, and give a picture of shock However, there is insufficient data to make that diagnosis There does not appear to have been enough rigidity and peritoneal irritation There seems to have been some retroperitoneal irritation as evidenced by the location of pain in the costovertebral region The amylase was probably in the upper normal limits

Surgical consultants bear me out that this was not a sufficiently acute abdominal condition to warrant operation There are other conditions that might have produced shock in this case The possibility of a ruptured viscus, such as is caused by a peptic ulcer or an inflamed gallbladder, is to be considered I think we have the feeling that the pain was never sufficiently severe nor the rigidity in the abdomen too marked to warrant these diagnoses

Hemorrhage is still another cause for shock. In this case two possibilities are to be considered First there is the picture of a complicated ectopic pregnancy and rupture The gynecologist found some tenderness in the right ovary However, we must also consider that there may have been tenderness in the right fallopian tube In addition, she also had an abnormal menstrual period, and a mass was located near the right cornu of the uterus at that time However, the cervix was found to be normal

A diagnosis which best fits the picture of chest pain, known hypertensive disease, abdominal pain, and hemorrhage is dissecting aneurysm with hemorrhage The patient had excruciating pain in her chest and abdominal symptoms I believe this patient had a dissecting aneurysm on a hypertensive arteriosclerotic basis with rupture and hemorrhage and a final episode with convulsive seizures The neurologic signs of the cerebral type are not uncommon in dissecting aneurysms

The possibility of coronary disease must be ruled out, and if there are any pulmonary infarctions, the original site is obscure The extremities were normal There is the possibility of pulmonary infarction arising from the pelvic veins or from within the heart There is also the possibility of paradoxical embolus with the production of pulmonary infarction However, I think the entire picture fits best with the diagnosis of hypertensive cardiovascular disease with dissecting aneurysm and rupture

DR ELLIOT HOCHSTEIN I have made diagnosis of dissecting aneurysm on the basis of hypertension This is a young woman, thirty-nine years old, who had precordial pain and pain in the abdomen with radiation to the back She then developed evidence of a mass in the abdomen Masses in the abdomen are not infrequently present in dissecting aneurysm A prior case of dissecting aneurysm had an episode of excruciating epigastric pain and then died within two or three days His method of death was similar in that it was sudden and simulated a hemorrhage There is evidence of some massive hemorrhage taking place in this woman The cerebral manifestation is also due to hemorrhage and the marked deficiency in cardiac output When one looks at the x-ray, there is a sign which is supposed to be characteristic of dissecting aneurysm One is likely to see a double aortic shadow, but this is not here However, there is a marked dilatation of the ascending aorta There was a drop in the red blood count, an elevation in the white blood count, and an increased sedimentation rate I think the other

possibilities to be mentioned again are coronary artery disease with multiple occlusions and a pulmonary embolism with thrombophlebitis on the periphery However, there is no evidence of peripheral thrombophlebitis, and the whole picture, as Dr Koffler presents it, fits in best with dissecting aneurysm

DR MARVIN KUSCHNER, (*Pathologist*) When we opened the chest cavity, the pericardial bulge occupied almost one third the diameter of the chest The pericardial sac contained 1,500 cc of clotted and liquid blood. Just above the sinuses of Valsalva, there was a 1-cm tear in the intima of the aorta This was apparently the site of origin of a dissection of the aorta which had extended down to the renal arteries and had apparently somewhat compressed and narrowed the lumen of the right renal artery The dissection involved, then, the entire aorta from the supravalvular portion to the renal arteries, a double aorta being found In the dissected portion there were large antemortem thrombi which indicated to us that the dissection was not a terminal event but was of some duration consistent with the patient's course following the initial episode The aneurysm had ruptured through the adventitia in the intrapericardial portion of the aorta with subsequent hemopericardium

Microscopically, at the edge of the area of dissection, one sees the typical areas of cystic degeneration of medial necrosis of the aorta which is the basis of the vast majority of cases of aortic dissection

Looking at the heart, we have evidence that some leakage into the pericardium occurred before death. There is a mild pericarditis with flakes of fibrin on the epicardial surface and numerous lymphocytes and plasma cells in the subepicardial fat A second, more massive hemorrhage may well have been the terminal episode in view of the nature and amount of blood in the pericardial sac The moderate degree of myocardial hypertrophy is consistent with the history of hypertension

In the right lung there were several subapical fibrocaseous tuberculous foci, well walled-off, and not in communication with the bronchi

We are hard put to explain the mass in the abdomen palpated during life There was no evidence of hemorrhage in the abdomen, retroperitoneal or intraperitoneal There was a corpus hemorrhagicum in the ovary and a small, 2-cm fibromyoma of the uterus which I am sure was not the abdominal mass palpated

Our final diagnosis was medial cystic necrosis of the aorta and dissecting aneurysm with rupture into the pericardial sac

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PHYSICIANS' LETTER EXCHANGE

To the Editors The United Nations Council of Philadelphia has been working for some time on the promotion of international friendships by a Letter Exchange between America and the other countries of the world There has been a tremendous response from people in all walks of life and we feel sure that professional men, and physicians in particular, could help tremendously by exchanging ideas with foreign colleagues

American physicians, returning from abroad, tell of many discouraging conditions—lack of sufficient drugs and equipment and, most important, ignorance of the advances in various fields of medicine during the past ten years Foreign physicians are eager for correspondence with American colleagues. A British physician writes that he is anxious to "exchange views with an un-nationalized doctor" We have just received lists of hundreds of Japanese medical men and students interested in discussing all branches of medicine What better method of establishing international friendships than by exchanging ideas and discussing conditions with a foreign friend?

A physician can help by writing to one foreign physician Each correspondent will be matched according to age, background, and, as near as possible, field of medicine The foreign letters will be translated whenever necessary

Letters should be addressed to Letters Abroad, United Nations Council of Philadelphia, 1411 Walnut Street, Philadelphia 3

G ALISON RAYMOND
Publicity Director

Philadelphia—*Modern Medicine, August 1, 1949*

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PHYSICIANS' LETTER EXCHANGE

To the Editors The United Nations Council of Philadelphia has been working for some time on the promotion of international friendships by a Letter Exchange between America and the other countries of the world. There has been a tremendous response from people in all walks of life and we feel sure that professional men, and physicians in particular, could help tremendously by exchanging ideas with foreign colleagues

American physicians, returning from abroad, tell of many discouraging conditions—lack of sufficient drugs and equipment and, most important, ignorance of the advances in various fields of medicine during the past ten years Foreign physicians are eager for correspondence with American colleagues. A British physician writes that he is anxious to "exchange views with an un-nationalized doctor" We have just received lists of hundreds of Japanese medical men and students interested in discussing all branches of medicine What better method of establishing international friendships than by exchanging ideas and discussing conditions with a foreign friend?

A physician can help by writing to one foreign physician Each correspondent will be matched according to age, background, and, as near as possible, field of medicine The foreign letters will be translated whenever necessary

Letters should be addressed to Letters Abroad, United Nations Council of Philadelphia, 1411 Walnut Street, Philadelphia 3

G ALISON RAYMOND
Publicity Director

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Case Reports

VITAMIN B_{12} EFFECTIVE IN PERNICIOUS ANEMIA WITH COMBINED SYSTEM DISEASE AND LIVER SENSITIVITY

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SENSITIVITY to liver extract in patients with pernicious anemia occurs with sufficient frequency to be a serious medical problem Schwartz and Legere, reporting on 396 cases of pernicious anemia treated with liver extract injections, found evidence of sensitivity in 17 per cent [1] They felt that with replacement of liver by synthetic preparations (oral folic acid) and with the use of oral antihistamine drugs that the problem of liver sensitization might lose its significance Folic acid (synthetic pteroylglutamic acid) has already been discontinued as a therapeutic agent in the treatment of pernicious anemia due to its failure to prevent combined systemic disease [2] Antihistamine substances, although extremely valuable, have failed to control many allergic conditions, especially when of great severity

Castle and Minot in discussing the etiology of pernicious anemia with respect to the hematologic, gastrointestinal, and central nervous systems long ago stated that "until the hematopoietic principle of liver is isolated, it will be impossible to find by therapeutic test whether it is also specific for the neural disturbance, or whether multiple factors, either intrinsic or extrinsic, are involved."[3] Vitamin B_{12}, a crystalline substance recently obtained from liver extracts and found to produce hematologic and neural remissions in pernicious anemia, promises to be the hematopoietic principle postulated by Castle and Minot.[4–7] The question of crude versus refined liver extract in the treatment of combined systemic disease may be answered The problem of liver sensitivity may now be solved also by the use of this crystalline vitamin

Berk and associates have recently reported on the effective treatment of a patient with pernicious anemia sensitive to liver extract who was treated inadequately with folic acid and developed severe anemia and combined system disease.[7] Vitamin B_{12} produced a hematologic remission and rapid and marked improvement in the neurologic picture *

The case herein reported is that of a patient with pernicious anemia who developed severe sensitivity to liver extract and in whom desensitization, changes in types and dosage of liver, and use of substitutes and antihistamine substances failed Folic acid maintained fair, although not perfect, blood values, but rapid, progressive, combined system disease threatened to incapacitate the patient until vitamin B_{12} was administered The rapid neurologic improvement, cure of the severe gastroenterologic disturbance, blood response, and relief from allergic manifestations which followed the use of this new form of therapy, prompt the report of this case

Case Report

The patient was a fifty-seven-year-old white businessman on whom the diagnosis of pernicious anemia was first established in 1932 At this time he received liver injections without any difficulty He first began to develop reactions from beef liver extract in 1933 These allergic manifestations consisted of symptoms of coryza, lacrimation, shortness of breath, wheezing, severe occipital headache, and nitritoid reactions requiring adrenalin for relief Some reactions were of the nature of anaphylactoid shock. Subsequently, he received pork liver extract for one year before allergic symptoms recurred. Following this, he was tried on various types of preparations of liver but was found to be sensitive to all of them. During this time also he had had several relapses because of inadequate therapy

This patient has been treated by the author (M Y M) since 1945 Attempts were made to maintain him on Ventriculin, Extralin, and Lilly's concentrated liver extract by mouth without success An effort was also made to desensitize him by administering increasing amounts of 1 100 dilution of Squibb (15 unit per cc) liver extract, then 1 10 dilution, and finally the undiluted extract. There was no reaction until a dose of 0 4 cc. of the latter was given Following this he developed delayed type of reactions, one-half to one hour after injection, characterized by coryza and occipital headache and occasionally accompanied by nausea and vomiting The dose was decreased to 0.25 cc , and he was also put on Benadryl, 50 mg three times a day This was later changed to Pyribenzamine, 50 mg three times a day, and he got along quite well with only an occasional mild reaction for seven months

The patient became restive on this regime, and at his insistence, in December, 1946, he was placed on folic acid, 15 mg daily by mouth. The dosage was later increased to 40 mg daily and supplemented finally in July and August, 1948, by raw liver and concentrated liver extract by mouth daily From

* Vitamin B_{12} was kindly furnished by Merck and Company, Rahway, New Jersey

December, 1947, he lost weight gradually from 147 to 132 pounds Hemoglobin values were maintained between 13 and 14 5 Gm. per 100 cc , and red blood cells were 3,110,000 to 4,250,000 per cu mm. Evidence of macrocytosis persisted, and there was fairly marked poikilocytosis and anisocytosis During this period he continued to work and did not complain of feeling badly in general.

His appetite began to fail in April, 1948, and he had considerable epigastric distress. A gastrointestinal series done in June, 1948, was reported normal. Occasionally he complained of slight numbness in his legs but had no difficulty in walking Physical examination in June, 1948, revealed a beefy red, fissured tongue and abnormal neurologic findings of sluggish knee and ankle jerks and markedly diminished vibration sense in the lower extremities

On August 15, he developed an abscessed tooth, and five days later, in the afternoon he had an episode of faintness with a severe occipital headache lasting for one-half hour Following this he began to complain of numbness in his legs and hands and some slight staggering in walking Reflexes were hypoactive to absent in the lower limbs, and vibration sense was absent in the lower and diminished in the upper extremities In ten days the symptoms had progressed so markedly that he could barely walk around in the house holding on to objects and was unable to walk alone The gait was very ataxic He found it extremely difficult to write and to perform fine movement with his hands He felt miserable, had marked anorexia, and complained of severe numbness in his hands and feet At this time the knee and ankle jerks were absent, vibration sense was absent below the iliac crest and in the upper extremities to the shoulder, and pinprick was not felt in the fingers and the lower extremities below the midcalf Both plantar responses were extensor from the outer border Position sense was absent in the great toes but was present in the ankles, knees, and fingers A feeling of numbness was present in both hands and distal to both knees The Romberg test was positive

A complete blood count on August 30, 1948, showed hemoglobin 14.5 Gm , red blood cells 3,810,000 per cu. mm, volume of packed red blood cells 45 per cent, mean corpuscular volume 117 cubic microns, mean corpuscular hemoglobin 38 micromicrograms, mean corpuscular hemoglobin concentration 32 per cent, white blood cells 5,600, segmented neutrophils 31 per cent, band neutrophils 9 per cent, lymphocytes 51 per cent, monocytes 7 per cent, eosinophils 1 per cent, basophils 1 per cent, and reticulocytes 1 per cent

Folic acid was stopped On August 31, he was started on 0 3 cc of Squibb's liver extract (15 units per cc) which was diluted 1 10 with physiologic saline This was increased 0 10 cc with each dose up to 1 0 cc This very small amount of liver was given without difficulty, but no improvement occurred except that the tongue was less sore and red Four days later, vitamin B_{12} was obtained, and he was given 5 micrograms intradermally to which there was no reaction Following this, he received 5 micrograms intramuscularly daily for six days, 10 micrograms daily for nine days, then 5 micrograms three times weekly, and finally after the twelfth week, 10 micrograms once weekly

The change in the patient was remarkable Within four days following the use of vitamin B_{12} he felt much better and was able to walk three blocks to the office with some help His appetite had improved, taste was beginning to return, his tongue had healed and was a normal pink. He had gained three pounds in weight Neurologic examination remained the same except that pinprick sensation had returned in the hands and was absent in the lower extremities only distal to the ankle

By the seventh day following treatment the patient was able to walk to the office without assistance, and his gait was much steadier However, there was practically no change in the neurologic examination On the tenth day, pinprick perception had returned to the hands except for the tips of the index and middle fingers Vibration sense had returned in the right arm and was present to the elbow on the left The patient swayed when doing the Romberg test but did not fall. He was definitely less ataxic

By the thirteenth day, pinprick recognition had returned to the upper and lower extremities except for a small triangular area on the outer aspect of the right foot Vibration perception was present in the upper limbs and was felt in the iliac crests but remained absent in the legs The feeling of numbness was less marked. The Romberg test showed a little swaying

On the twenty-fourth day of treatment, vibration sense was first perceived in the left patella and the tibia but remained absent on the right Numbness was slight Plantar reflexes gave a normal flexor response The knee jerks were more active, and the right ankle jerk was present There was only an occasional swaying in the gait, and the Romberg test was negative

By the thirty-third day, vibration sense was barely perceptible in the tibia and external malleolus of each leg Pinprick perception, position sense, and plantar reflexes were normal. At this time the patient walked quite well. His appetite was good, and he had gained 4 pounds in weight

Reticulocytes rose to 9 per cent on the eighth day following treatment with vitamin B_{12} On the fourteenth day the reticulocyte count was 3 2 per cent. The red blood cell count was 5,100,000 per cu. mm. and hemoglobin 15 Gm per 100 cc on the twenty-ninth day

On December 21, one hundred eight days after therapy was started, a complete hemogram showed normal findings Hemoglobin was 15 5 Gm. per 100 cc , red blood cells 5,670,000, white blood cells 8,840, volume of packed red blood cells 48 per cent, color index 0 95, mean corpuscular volume 84 cubic microns, mean corpuscular hemoglobin 27 micrograms, and mean corpuscular hemoglobin concentration 32 per cent. At this time the patient felt well, had an excellent appetite, and weighed 140 pounds There was no further change in the neurologic examination

Comment

It would appear that folic acid therapy, although apparently well borne by the patient, failed to prevent glossitis and the progress of serious gastrointestinal symptoms. Although no severe anemia occurred, evidence of macrocytosis persisted. After about one year and a half of treatment with folic acid signs of combined system disease appeared The neural changes remained minimal for two and one-half months, then progression was so rapid that the patient became completely incapacitated within a period of ten days. After folic acid had been stopped for four days and small amounts of liver extract

given, the glossitis improved, but the neural symptoms were unchanged.

Following the administration of vitamin B_{12}, there was dramatic neurologic improvement, and the gastrointestinal disturbance was completely relieved. A reticulocytosis was obtained, and the blood values rose to normal. This improvement was maintained over a period of one hundred eight days. No sensitivity to the treatment could be observed

The response to vitamin B_{12} obtained in this patient was certainly similar to that observed regularly in the treatment of cases of pernicious anemia with liver extract. Although complete reversal of the neural changes was not obtained, a return to normal of the disturbances of more recent onset was effected * As with liver extract therapy, intensive treatment over a period of many months may be required for maximal neurologic recovery Effectiveness of vitamin B_{12} in the treatment of pernicious anemia was demonstrated in this patient by the production of a state of well-being and by relief from the hematologic, gastrointestinal, and neural disturbances

* Dosage of vitamin B_{12} was kept at a minimum because of difficulty in obtaining this material One wonders whether the neurologic response would have been enhanced by increased amounts of vitamin B_{12} comparable to the present system of treatment with liver extract.

Summary

A patient with pernicious anemia acquired a refractory sensitivity to all forms of liver extract and was being maintained on adequate dosage of folic acid with a fair but not perfect hematologic response He developed severe gastrointestinal symptoms and a rapidly progressive subacute combined degeneration of the spinal cord. He was treated with crystalline vitamin B_{12} which produced, without reaction, marked improvement of the combined system disease, relief from the gastrointestinal symptoms, and normal blood values

It is hoped that vitamin B_{12} will be the answer to allergic manifestations complicating the treatment of pernicious anemia with liver extract and that it will prove to be the hematopoietic principle of liver extract effective in maintaining a remission of the complete pathologic process in this disease.

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CHRONIC THYROTOXIC MYOPATHY

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CHRONIC thyrotoxic myopathy is a disease of muscle associated with hyperthyroidism It usually occurs in men past middle age and is characterized by loss of weight and marked weakness, fatigability, wasting, and coarse fasciculation of the skeletal muscles There is no pyramidal tract involvement The symptoms of muscle weakness dominate the clinical picture, and the evidences of thyrotoxicosis are, in many instances, masked Thyroidectomy or medical therapy with the thioureas is followed by recovery Eighteen such cases have previously been reported in the literature [1 2]

The importance of reporting another case of chronic thyrotoxic myopathy and reviewing its clinical findings lies in the fact that this disease represents one of few instances of chronic muscular disorders associated with atrophy which is amenable to therapy The masked hyperthyroidism and the necessity for evaluation of the muscular atrophic state makes this an interesting clinical problem

Case Report

S L , a seventy-two-year old white man, was first seen in the medical clinic on July 9, 1947, with a three-month history of exertional dyspnea accompanied by substernal, nonradiating, pressing pain of five minutes duration relieved by rest Orthopnea and nocturnal dyspnea were also present He also complained of substernal heartburn of two to three months duration not related to meals and occurring mainly at night Because of this latter complaint, a milk diet was recommended A subsequent loss of about 50 pounds in the three months prior to examination at the clinic was attributed by the patient to strict adherence to this diet Three years ago, the patient had suffered a "stroke" involving the left upper and lower extremities

Physical examination revealed a poorly nourished patient who weighed 116 pounds. The tongue was beefy The neck veins were moderately distended The thyroid gland was not palpable The chest was barrel-shaped with a few moist rales at the base of the right lung posteriorly The heart was not enlarged There were no murmurs, and the ventricular and pulse rates were equal at 76 beats per minute The rhythm was regular The blood pressure was 130/74 The liver was enlarged two fingers beneath the costal margin. There was a 1 plus pretibial and ankle pitting edema bilaterally

A diagnosis of arteriosclerotic heart disease with angina of effort and congestive heart failure was made No definite gastrointestinal diagnosis could be made, and the roentgen examination of the stomach, duodenum, and small intestine was normal. An x-ray plate of the chest on July 10, 1947, revealed signs indicating healed tuberculosis in the left upper lobe extending down to the second rib anteriorly The nodes of both hili showed calcified deposits The heart was normal in size and shape An electrocardiogram revealed evidences of myocardial damage The rhythm was regular, rate 100

The patient was digitalized and given 1 to 2 injections of 1 cc of Mercuhydrin intramuscularly per week. His weight fell to 105 pounds by August 21, 1947, but because his general condition did not improve, he was admitted to the Beth Israel Hospital on this date On admission, the ventricular rate was noted to be 136 beats per minute and irregular with a pulse deficit of 6 beats per minute The heart was enlarged with the point of maximum impulse in the sixth intercostal space at the anterior axillary line There were no murmurs. The blood pressure was 160/80 The venous pressure was 13 cm. of water The circulation times were normal with a calcium gluconate time of nineteen seconds and an ether time of nine seconds The combination of marked loss in weight, paroxysmal auricular fibrillation, tremor of the outstretched hands, and normal circulation times prompted the diagnosis of a masked hyperthyroidism. The basal metabolic rate was found to be plus 78 per cent with a blood cholesterol of 88 mg per cent. A gastrointestinal series revealed an apple-sized hiatus hernia. A barium enema was negative

On September 10, 1947, the patient was placed on a daily dose of 150 mg of propyl thiouracil. By September 26, the basal metabolic rate had fallen to plus 48 per cent, the blood cholesterol had risen to 167 mg per cent, and the weight was 114 pounds Repeat electrocardiograms showed a variation of the rhythm between normal sinus and auricular fibrillation The patient was discharged to the Thyroid Clinic on September 27, 1947

In the Clinic the maintenance dose of propyl thiouracil was increased to 200 mg daily on September 29, 1947, and then to 300 mg daily on October 27, 1947 By November 12, his basal metabolic rate was plus 19 per cent, and his weight was 126 pounds

He did not appear for his next monthly visit, and it was learned that in November he had reported to the Orthopedic Clinic because of pain and marked limitation of motion of the right shoulder of three weeks duration He stated that he first noted that the contours of his shoulders and arms were becoming flattened about eight months ago and that this had been overlooked during his first admission

Physical examination revealed marked limitation of motion of the right shoulder joint with atrophy of the muscles of the shoulder girdle and upper arm bilaterally, the right being greater than the left. Gross fasciculations of the right triceps were noted. The forearm and hand muscles were normal. There was no atrophy of the muscles of the pelvic girdle or muscles of the lower extremities. The facial musculature appeared wasted, but the absence of dentition made the diagnosis of atrophy of the cheek muscles difficult The deep reflexes of the upper extremities were somewhat hyperactive with a bilaterally positive Hoffman. Knee and ankle jerks were normal The Babinski was negative The abdominal and cremasteric reflexes were present and active Roentgenograms of the cervical spine showed considerable kyphosis, slight spondylitis, and a moderate degree of osteoporosis.

Roentgenograms of the shoulder girdles both forearms, and wrist joints showed moderate osteo-

porosis. The cause of the muscular atrophy was not entirely clear to the neurologist, and the patient was readmitted to the Hospital on January 6, 1948, for electrical studies of the muscles He had not taken any propyl thiouracil for two months

Physical examination this time revealed a thin, chronically ill white man There was a slight stare to the eyes with no lid lag and no weakness on convergence The fundi showed slight narrowing of the arterioles The disks were normal. The ears revealed an old perforation of the left tympanic membrane The right drum was normal. There was a diffuse hyperplasia of the thyroid gland A nodule was palpated in the left lobe On talking, the veins of the neck became prominent, and the thyroid gland itself appeared to bulge The voice was hoarse The physical examination of the heart showed no change from that of the previous admission Auricular fibrillation was present, with a ventricular rate of 120 and a pulse rate of 116 Reaction of the muscles of the right shoulder to galvanic and faradic current was normal indicating no reaction of degeneration No change in the hand grip or elevation at the shoulder was noted after subcutaneous injection of 1 5 mg of prostigmine

The diagnosis of hyperthyroidism with chronic thyrotoxic myopathy was made The basal metabolic rate on admission was plus 91 per cent, and the patient was started on 200 mg daily of propyl thiouracil. The fasting blood sugar was 92 mg per cent, the blood nonprotein nitrogen 41 mg per cent, the blood carbon dioxide 57 1 volumes per cent, the blood acid phosphatase 4.6 units, the blood calcium 10 0 mg per cent, and the blood phosphorus 3 6 mg per cent A Sulkowitch test revealed greater urinary calcium excretion than normal. A twenty-four-hour urine specimen showed spontaneous creatinuria of 319 mg

A repeat basal metabolic rate during this hospital admission was plus 79 per cent. Because of this the dose of propyl thiouracil was raised to 300 mg daily His weight had risen to 124 pounds from an admission weight of 117 pounds He signed out without permission after he had refused a biopsy of his muscles Within a month following his discharge, his weight had risen to 134 pounds while his basal metabolic rate remained elevated at plus 62 per cent On February 20, 1948, he was started on 300 mg daily of cyclopropyl thiouracil. By March, 1948, the patient stated that he felt stronger than at any time since the onset of his illness However, no clinical change in the musculature was yet apparent

The patient was followed periodically during the next year in both the Cardiac and the Thyroid Clinics His medication was continued at 300 mg daily of cyclopropyl thiouracil until May, 1948, when he was started on 100 mg three times daily of cyclohexylmethylthiouracil * This was increased to 600 mg daily in divided doses in October, 1948 The basal metabolic rates during 1948 showed a gradual diminishing level and by February, 1949, it was plus 24 per cent His weight at this time was 136 pounds The range of motion in his right shoulder improved gradually over the year until it almost equalled the range of motion of the left shoulder Clinically there was an increase in strength and a filling of the flattened contours of the shoulders and upper arms

Comment

Starling, Darke, Hunt, and Brain have classified the myopathies associated with hyperthyroidism as follows [3]

1 Exophthalmic ophthalmoplegia.
2 Thyrotoxic myopathy
  (*a*) Acute thyrotoxic myopathy
  (*b*) Chronic thyrotoxic myopathy
  (*c*) Thyrotoxic periodic paralysis.
3 Myasthenia gravis and thyrotoxicosis

The case reported represents an instance of chronic thyrotoxic myopathy It was first described by Bathhurst in 1895 [4] The disease is characterized by marked muscular atrophy which is symmetric and most frequently involves the shoulder and pelvic girdles McEachern and Ross and Thorn and Eder have summarized the 18 cases reported in the literature [1,2] The distribution according to sex shows 13 men and five women The age range is from twenty-two years to sixty years with an average of forty-seven years Our patient is the oldest reported instance The duration of symptoms was between seven weeks and three years with an average of eight months Thyroid enlargement was present in 12 of these patients Exophthalmos was found in eight of the patients Fasciculations were found in ten of the patients The basal metabolic rate varied between plus 14 and plus 100 per cent in 16 instances in which it was taken, with an average of plus 44 per cent All but one of the patients (Case 3 of McEachern and Ross) showed muscular wasting, and this included face and temple, shoulder girdle, small muscles of the hands, and calves [1] In most instances, the musculature of the shoulder girdle and upper extremities was involved The clinical symptoms were characterized by progressive weakness and fatigue, weight loss, and muscular twitching Occasionally, there was associated nervousness and sweating Tremor of the outstretched hand was present in 16 of the patients. A blood cholesterol was taken in seven instances. They varied between 83 and 186 mg per cent with an average of 147 mg per cent

Prostigmine, given in the dose of 1 5 mg subcutaneously, had no effect on the muscular strength in four of the cases reported by Thorn and Eder This was likewise our finding This conclusion is in contrast to that of McEachern and Ross who demonstrated the return of a myogram toward normal after intramuscular injection of 1 mg of prostigmine with concomitant improvement in muscle power, the patient being able to get out of bed and walk for several hours Spontaneous creatinuria (mg per twenty-four hours) occurred in five instances out of six in which the test was done Impaired retention of ingested creatine occurred in two instances in which the test was done, the figures being 62 and 28 per cent [2] Recovery or marked improvement is reported in 14 cases The other four died, two being due to respiratory paralysis. Thorn and Eder also studied the urinary 17-ketosteroids [2] Two men patients with gonadal atrophy had excretions of 8 3 and 8 6 mg per twenty-four hours, respectively The normal for men is 12 to 20 mg One woman patient excreted 2 7 mg of 17-ketosteroid per twenty-four hours, whereas another woman patient excreted

* Supplied by Winthrop-Stearns Inc.

9 4 mg per twenty-four hours The normal for women is 9 15 mg Our patient excreted 14 6 mg

The treatment consists of therapy directed at the thyrotoxicosis which is surgical or chemotherapeutic by the use of the thioureas In cases where the urinary 17-ketosteroid is low, methyl testosterone orally or testosterone propionate parenterally is given

The muscular pathology includes marked atrophy with the replacement of muscle fiber by fibrous connective tissue and infiltration of lymphocytes.

Summary

Clinical findings in a seventy-two-year-old white man with chronic thyrotoxic myopathy along with a review of 18 such cases found in the literature are reported. This disease is characterized by loss of weight, weakness, and wasting of the skeletal musculature The associated hyperthyroidism is frequently masked

Therapy for this muscular disorder is aimed primarily at the treatment of the thyrotoxic state

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STUDY OF SLEEPING BABIES OFFERS HOPE TO PARENTS

Parents who pace the floor with their infants during the early hours can look with hope to a new research project at the University of Chicago Scientists there have a $10,000 grant from *Swift & Co* for a study of the sleeping habits of babies

The scientists will seek to determine whether a 25 per cent increase in protein content of the infants' diet will induce a more restful slumber The babies will have specially prepared meats An apparatus attached to the crib will record every movement made by the child, indicating the soundness of his sleep

Infants from six to twenty-six weeks old will be observed Scientists said practically no studies of sleep characteristics of this age group have been made to date. They added that distraught parents might receive some welcome news this fall —*New York Times, August 7, 1949*

WARNS OF TREND TO CENTRALIZE CHARITY AND WELFARE ACTIVITIES

"Can the Red Cross Survive?" the *Journal of the American Medical Association* asks in an editorial in the July 30 issue Discussing a speech by Basil O'Connor, New York, president of the American National Red Cross, to the 24th annual convention of the organization recently, the editorial says Tracing the trends of development and action of voluntary association for the alleviation of human suffering, he inquired as to whether or not this is an outmoded and inefficient method

"Must we consider the possibility," he asked, "that a compulsory system of humanitarian activity under state control is the best solution?" Mr O Connor considered that the expansion of governmental authority has taken place in the main because of the failure of private individuals or private groups to do certain jobs which society feels must be done "Modern fascist and communist dictators," said Mr O'Connor, "have risen to power on the ruins of the political or religious groups, the trade unions, and the fraternal orders." They had to destroy these in order to clinch their power over the masses Totalitarian systems of government dare not risk the existence of free and spontaneous action such as that resulting from voluntary associations "In a democracy voluntary associations must play an essential role," warned President O'Connor, "in preserving freedom in a society which our industrial technology is driving into an ever greater centralization A part of the mission of the Red Cross is to protect free association because it is vital to free society

Pursuing this theme, the president of the American Red Cross sounded a warning against the tendency to remove from voluntary associations the spirit of individualism that animates them in their work "Some high-minded citizens today are taking another view They believe that the collection of funds for health and welfare purposes should be centralized, that individual organizations should lose identity, and that private humanitarian activity should thereby be put on a consolidated and allegedly more efficient basis The motives behind this proposal may be good, but its proponents overlook the dangers inherent in its denial of the fundamental philosophy "

WELL WATER METHEMOGLOBINEMIA

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FOR the past few years attention has been given to cyanosis in infants under three months of age who consume well water of high nitrate content Cases of methemoglobinemia attributable to the consumption of such well water have been reported from the midwest, from Virginia, from Canada, and from Belgium.[1–6]

The pathogenesis of this condition has been ascribed commonly to an immaturity of metabolism in young infants by which nitrates are not successfully broken down into ammonia. Nitrites are formed which combine with hemoglobin to form methemoglobin giving rise to apparent cyanosis. However, the recent work of Cornblath and Hartmann has shed further light on the mechanism[7] These authors have demonstrated that the ingestion of nitrates will produce methemoglobinemia only in infants who have a low gastric acidity (pH of 4 0 or higher) This low acidity permits the growth of several micro-organisms which are capable of reducing nitrates to nitrites in the upper gastrointestinal tract The absorption of this nitrite into the blood stream produces methemoglobinemia. The normally high values of gastric acidity in adults explain why they never exhibit cyanosis from drinking well water with high nitrate content

The following is the first case reported in New York State

Case Report

A female infant, aged seventeen days, was brought to the family physician in April, 1949, because of gradual onset of generalized cyanosis of several hours duration The doctor made a careful physical examination and found no obvious cause for the cyanosis He admitted the infant to the hospital and ordered continuous oxygen therapy Within twelve hours the cyanosis had gradually disappeared The physician asked the author to examine the baby prior to discharge from the hospital.

The infant, weighing 8 pounds at birth, was a normal full-term spontaneous delivery She was fed a powdered milk formula and gained weight progressively The formula consisted of 12 tablespoons of powdered milk and 24 ounces of water, she consumed 3 to 4 ounces every four hours. The powdered milk was diluted with well water

The family history is remarkable in that a sister had cyanosis and mild generalized convulsions at the age of two weeks These disappeared after the mother changed the formula of powdered milk diluted with well water to cow's milk. Another sibling was fed powdered milk diluted with well water and experienced no obvious difficulties

I first saw the patient the day after admission to the hospital, and at that time physical examination revealed no abnormalities There were no respiratory or cardiac abnormalities The baby was alert and responsive, with good color, cry, and activity The mother was extremely anxious to take the baby home and was allowed to do so She was instructed to bring in a sample of the well water from which the formula was made and to use city water in preparing the infant's formula until a report of the water analysis was received

The well water was analyzed by the laboratory of the New York State Department of Health at Albany, New York The nitrate concentration was found to be 60 parts per million, six times the generally accepted upper limit of safety and in excess of that which has been reported to have caused cyanosis in young infants Repeated analyses of water from the same well revealed the nitrate content to be quite variable but consistently high and well above the safe limit

The infant has had no further attacks of cyanosis since changing the source of water supply

Comment

When a physician encounters cyanosis in a young infant, especially one under three months of age, who consumes well water and presents no other obvious physical abnormalities, the diagnosis of well water methemoglobinemia should be considered The condition is probably of frequent occurrence, most cases being misdiagnosed as heart, lung, or thymus abnormalities Boiling the water does not reduce the nitrate content, if anything, this are concentrated by the evaporation of water If well water must be used, a whole milk formula would, of course, be preferable to one using evaporated milk, and especially to a powdered milk formula. Review of reports on well water analyses, made over the past years by the New York State Department of Health, indicates that significantly high nitrate levels are not commonly encountered in this State[8]

Extensive laboratory studies are not necessary for diagnosis Analysis of the water for nitrate content is sufficient Blood studies can be undertaken to demonstrate methemoglobin spectroscopically Grossly, the venous blood is chocolate brown in color

In early mild cases, the only treatment necessary is a change in the water used, although occasionally oxygen therapy is indicated In the more severe cases, 1 per cent methylene blue, 0 5 to 1 0 cc intravenously, or 100 to 200 mg of ascorbic acid intramuscularly will rapidly alleviate the condition The prognosis of severe or untreated cases is bad In Iowa, for example, 10 per cent of the patients died[1]

Summary

A case of methemoglobinemia attributable to the consumption of well water containing a high concentration of nitrate is reported Physicians should be on the lookout for similar cases

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MASSIVE INTESTINAL RESECTION FOR REGIONAL ILEITIS

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WITHIN the past few years, many reports have appeared in the surgical literature describing the successful removal of large segments of bowel The three most extensive intestinal resections on record were performed as emergency operations for embolism of the superior mesenteric artery, where the presence of gangrenous intestine made the operation of massive resection imperative [1-3] On the other hand, most of the elective wide resections have been accomplished for regional ileitis, but none has been as extensive as the two cases of ileitis described here

The purpose in reporting our two cases of massive resection for regional ileitis is twofold (1) To demonstrate the feasibility of such wide intestinal resections and (2) to record the apparent lack of serious functional disturbances in both patients from whom, at operation, most of the small and large intestinal tract were removed Both patients have returned to their usual occupations within a short time after operation and at present are enjoying excellent health

Case Reports

Case 1 —F B , a white man, forty-seven years of age, was admitted to the Boulevard Hospital on February 2, 1947, complaining of abdominal pain and distention

The significant facts in his past history were as follows Six years prior to admission, in 1941, the patient was operated upon for appendicitis, but at operation the terminal ileum was involved A short-circuiting operation was done, anastomosing the ileum to the sigmoid An uneventful operative recovery resulted, and he was symptom-free for two years In 1943, periodic attacks of right lower quadrant pain developed, lasting for three hours, occurring about every three weeks and associated with nausea and constipation The attacks would end with diarrhea, and the pain would then disappear Five months before the present admission he suffered a severe attack, and for a period of almost three months he had similar attacks daily He was admitted to a New York hospital on January 7, 1947, where, after several days of observation and preparation, a laparotomy was performed At operation there was noted "tremendous dilatation and distention of the terminal ileum Nothing was excised and another ileosigmoidostomy was performed excluding sixteen inches of ileum" He recovered sufficiently to be discharged from this hospital, but because of a progressively enlarging abdomen, fever, nausea, vomiting, and obstipation, he presented himself to us for hospital readmission four days after he left the other institution

Upon admission the patient appeared extremely wasted and thin, but the abdomen was markedly distended and tense Large, overdistended loops could be distinguished easily through a thin overlying abdominal wall He was in great pain, and breathing was restricted because of the extreme distention The temperature was 100 2 F , respirations 20 per minute, and pulse 94 per minute and regular The blood pressure was systolic 104 mm mercury, diastolic 50 mm mercury Laboratory studies disclosed essentially negative urinalyses, hemoglobin 12 Gm , erythrocytes 3,420,000 per cu mm , white blood cells 7,800 per cu mm., and polymorphonuclears 68 per cent A Miller-Abbott intestinal tube was inserted and within a few hours was located in the duodenum

After two weeks of intestinal decompression, transfusions, and other supportive therapy, the patient's condition was somewhat improved. The obstruction was slightly relieved, and patency of the bowels was again established However, intermittent abdominal cramps persisted, even though the patient was able to be ambulatory The abdomen was still greatly distended, chiefly in the upper half The evening temperatures reached 102 to 103 F consistently It became apparent that one could not hope to overcome completely such severe obstruction by conservative means alone

On February 26, 1947, after consultation with Dr Asher Winkelstein who studied this patient for many months, a hurried exploratory laparotomy for intestinal obstruction was done under general anesthesia, using sodium pentothal, nitrous oxide gas, and curare However, the operative findings were not only those of simple mechanical obstruction but also the end results of advanced chronic inflammation of the intestines No amount of mechanical intraluminal decompression could reduce the caliber of such distended intestinal loops, whose walls were rigid and stiffened by the fibrous tissue changes of longstanding chronic inflammation The contiguous mesentery was similarly involved and also required excision All of the small bowel (except the proximal jejunum for a distance of two to three feet from its beginning at the root of the transverse mesocolon) was distended, thickened, and indurated to as much as 4 and 5 inches in diameter The cecum, ascending colon, and transverse colon were similarly distended with gas and large hard fecal masses Coils of intestines were adherent to an old laparotomy scar Other loops with an ileosigmoidostomy were involved in a large inflammatory process, all of which was fixed and immobilized Fibrinous exudate covered many loops of intestine There were several constricting adhesions and firm bands, one of which closed the sigmoid lumen The poor condition of the patient did not warrant a long surgical procedure Therefore, several adhesions were severed, and a mushroom catheter was inserted into a large distended loop of small intestine, with its exit through a right lower stab wound incision of the abdominal wall Postoperatively, the patient showed some improvement, and decompression of the intestinal tract was enhanced somewhat by the draining ileostomy tube The Miller-Abbott tube also continued to function well, even though it never passed beyond the proximal jejunum Nevertheless, all these procedures did not reduce the size of the distended abdomen appreciably, and the high septic temperatures persisted In spite of the extreme wasted condition of the patient, further surgery was decided upon It was apparent that his only hope for recovery from this disease depended upon the excision of all involved loops of intestine and mesentery

On March 20, 1947, through a right rectus incision the abdomen was again opened The entire ileum

was found to be reddened, edematous, thickened, and covered with fibrinous exudate throughout Some intestinal loops were still distended up to 4 and 5 inches in diameter while others were collapsed The ileostomy tube was found in an area of collapsed loops, evidently the region it decompressed The ileosigmoidostomy performed in 1941 showed considerable evidence of spread of the inflammatory process across the anastomosis so as to involve a large segment of sigmoid and part of the descending colon A blind end of the ileum was seen which evidently represented the exclusion operation performed a few months previously at another hospital The cecum, ascending colon, hepatic flexure, and part of the transverse colon up to the splenic flexure were dilated, inflamed, and covered by fibrinous exudate Many adhesions fixed the loops of ileum, cecum, and ascending colon to the abdominal wall anteriorly and laterally The mesentery of the terminal small intestine was exceedingly thickened, edematous, and, together with many loops of intestine, formed a firm mass the size of a grapefruit

The operative procedure consisted of sectioning the proximal jejunum at a level where normal jejunal tissue was found, or at about a distance of two feet from the duodenojejunal junction This proximal end of jejunum was closed with three layers of silk sutures Then the following portions of intestine were removed with their involved thickened mesentery remaining jejunum, ileum, cecum, ascending colon, hepatic flexure, and transverse colon up to the splenic flexure The involved loops of intestine with their attached thickened mesentery were so large that the excised viscera were removed in three sections Each section of excised intestine filled a large round white enameled operating room basin to overflowing A side-to-side anastomosis was then made between the distal portion of the remaining two feet of jejunum and the left transverse colon Silk suture technic was used throughout Because of the extreme distention and inflammatory condition of the left colon in the area of anastomosis with the ileum, 8 inches of diseased sigmoid and descending colon were mobilized and removed by the Rankin double-barrelled colostomy method The crushed cut ends of the left colon with attached clamps were delivered outside of the abdomen through a separate left lower abdominal wall incision, since this procedure consumed very little time At the end of this massive resection, it was possible to peritonealize most of the denuded areas of the posterior abdominal wall The incision was closed with interrupted "far and near" wire sutures, grasping peritoneum, muscle, and fascia in one layer

On the following day the crushing clamps on the left colon were removed, and subsequently gas and liquid stool escaped The stool pouring from the colostomy now lacked the benefit of the water-absorbing surface of the cecum, ascending, and transverse colon After six days, a special effort was made to suppress this profuse watery drainage by crushing the intervening spur Intravenous amino acids, saline, glucose, and transfusions were used in generous quantities, as well as large doses of penicillin (100,000 units every three hours) Within twenty-one days the spur was completely crushed, and the fecal stream was deflected downward with resulting formed stools per rectum The patient's general condition immediately improved, and he began consuming an enormous quantity of food Not only did he eat several portions at each meal, but he ate heartily between meals On the fifteenth postoperative day, a large quantity of foul-smelling pus broke through the operative wound, and the temperature fell to normal limits where it stayed until his discharge from the hospital on April 19, 1947

One month later, on May 20, 1947, the patient was readmitted for closure of the colostomy This was easily accomplished under general anesthesia, three layers of black silk sutures were used. The patient was discharged from the hospital four days later

Pathology Report—Examination of the excised intestine revealed extensive serosal thickening, general muscular hypertrophy, abundant friable exudate, and distortion of the serosa by scarring Pathologic diagnosis was chronic and subacute nonspecific ileitis and colitis

Postoperative Course—This patient has enjoyed unusually good health since his discharge from the hospital His appetite has been excellent, and his weight at present is 153 pounds, a gain of about 60 pounds since operation He is completely free of pain and abdominal discomfort and works as a carpenter eight hours a day The stools are loose and sometimes semisolid They number four to five per day and one during the night This may account for his more than average thirst The color varies from normal to lighter than normal On November 24, 1947, chemical analysis of his stools revealed total fat 11 9 Gm. per cent, fatty acids 5 0 Gm. per cent, neutral fat 6 9 Gm. per cent, total nitrogen 13 6 Gm per cent, microscopic—crystals, no fat, occasional vegetable cells, occasional muscle fibers These findings are consistent with normal bowel function

The patient notices much gas and tries to keep his bowels constipated by dieting He eats almost everything but omits such foods as fresh fruits which, he believes, encourage loose stools and gas. Examination of his abdomen reveals moderate distention in the lower half Here the few feet of intestine remaining are readily seen through the skin as considerably dilated Peristalsis is also evident Recent roentgenographic studies confirm the presence of the marked distention of the jejunum and colon left behind Such distention and increase in the size of the remaining intestine may be an attempt to compensate for the large amount of missing intestine

Comment—For a case of extensive regional ileitis of six years duration, an operative procedure was performed resulting in the removal of all small intestine except two feet of jejunum, all of the ileum, cecum, ascending colon, hepatic flexure, transverse colon up to splenic flexure, and 8 inches of sigmoid. The spread of this disease across an ileosigmoidostomy anastomosis indicates only one of its bizarre characteristics A one and one-half year follow-up of this patient reveals good health, complete freedom from abdominal pain, and a minimum disturbance of intestinal function The postoperative compensatory mechanism of intestinal dilatation is evident, a condition similar to that of the distended jejunum which follows subtotal gastrectomy and the dilated common bile duct after gallbladder removal.

Case 2—J V, a white man, twenty years of age, was admitted to the Boulevard Hospital on August 20, 1947, complaining of abdominal pain for six years He was operated upon three times within the previous three years for his present condition The important facts in his past history were as follows In September, 1945, a laparotomy was performed at which time a left abdominal incision was made Nothing was done, and the findings were

reported as regional ileitis One week later at the same institution his appendix was removed through a McBurney incision for persistent abdominal pain In April, 1947, four months before this present hospital admission, an attempt was again made to resect the involved intestine, but this was discontinued soon after opening the abdomen His parents were then informed that it would be useless to make further attempts to eradicate his disease by surgery

The abdominal pains were located always in the right lower quadrant, dull in nature, never doubling him up, even though he obtained relief by bending forward. For a few weeks prior to admission, the pain was constant day and night, occasionally interfering with his sleep There was no associated nausea or vomiting The stools were mucoid in character, never contained blood, and there had been no diarrheal urgency or cramps Sometimes he had two or three loose stools daily Since this illness the patient had a loss of appetite, fever, weakness, and easy fatigue Within the year prior to admission he lost 13 pounds, with his weight upon admission being 117 pounds

Upon physical examination he presented the picture of a wasted individual, with sunken cheeks and dried skin. The abdomen showed three operative scars, one in the left upper area, another over McBurney's point, and the most recent one in the lower right rectus region There was a large, hard, firm mass to the right of the midline occupying the entire length of the abdomen from the costal margin to the iliac region This mass was fixed, immobile, and only slightly tender

The temperature upon admission was 102 F , the pulse 100 per minute and regular, and the respirations 20 per minute The blood pressure was systolic 90 mm. mercury and diastolic 50 mm. mercury The blood count was erythrocytes 4,010,000 per cu mm., hemoglobin 12 Gm , leukocytes 23,300 per cu. mm., polymorphonuclears 95 per cent, lymphocytes 4 per cent, and monocytes 1 per cent The urinalysis was essentially negative The total blood chlorides were 592 8 Gm. per cent, the total protein 6 2 Gm. per cent, albumin 3 9 Gm. per cent, globulin 2 3 Gm per cent A thorough roentgenologic study by Dr Samuel Feuerstein summarized the diagnosis preoperatively as "regional ileitis involving several loops of ileum, multiple fistulous formation, walled off abscess with induration of cecum and ascending colon" (Fig 1)

After five days of preliminary treatment with blood transfusions, amino acids intravenously, intestinal decompression, penicillin, and sulfasuxidine, an abdominal operation was performed under fractional spinal procaine anesthesia supplemented with sodium pentothal. Upon excising the right rectus scar and approaching the peritoneum it became evident that the large abdominal mass was thoroughly adherent to the whole of the abdominal wall anteriorly Posteriorly, the mass occupied the right lateral gutter and extended over to the left side of the abdomen in front of the vertebral column. The mass was completely covered over by and adherent to the omentum, with firm attachments to the urinary bladder, sigmoid, rectum, and proximally to the liver In fact, there was fixation of the mass to almost every structure and part of the abdominal cavity

After sharp dissection of this smooth mass with its enveloping omentum from the anterior abdominal wall, it was evident that the tumor mass contained all the loops of the small intestinal tract and right

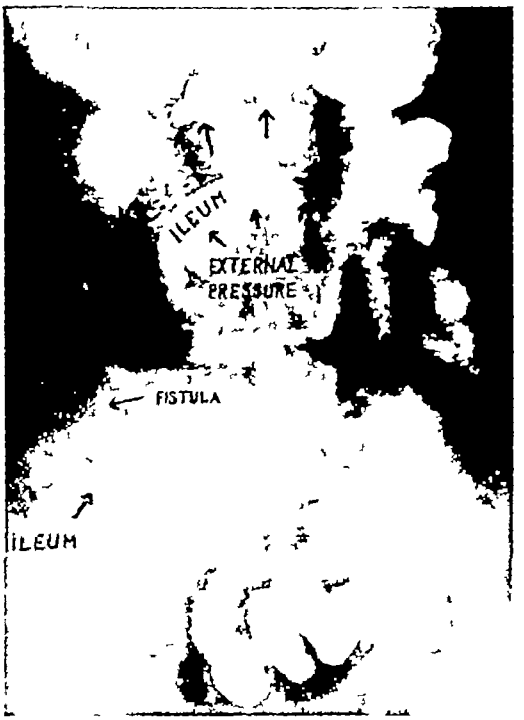


FIG 1 Preoperative roentgenogram demonstrating regional ileitis involving several loops of ileum, multiple fistulous formation, walled-off abscess with induration of cecum and descending colon

colon The omentum formed a firm covering sheet for all of this Further examination revealed that the mesentery of the ileum and jejunum was exceedingly thickened by chronic inflammation, and at the terminal ileum it reached a width of 3 to 4 inches At this point a greatly thickened and distended cecum and ascending colon were found adherent to these structures and comprised a large part of the abdominal mass Careful inspection revealed that all of the small intestine was involved except $1^1/_2$ to 2 feet of the jejunum, as measured from its origin at the duodenojejunal junction at the ligament of Treitz Only the transverse colon, descending colon, and sigmoid were free of disease and in good condition. The duodenum was buried in many adhesions, but no ulcerations were seen or palpated The duodenal deformity suspected in the x-ray pictures may be accounted for by adhesions of the duodenum

Procedure.—With much difficulty, an exploratory opening was found in the adherent omentum, and the mass was slowly dissected in its entirety from the right abdominal wall anteriorly and laterally and from the right gutter posteriorly This step succeeded in mobilizing the mass in its right lateral aspect. Adhesions to the rectum and sigmoid were also separated. The dissection was now shifted to the transverse colon which was sectioned at the junction of its middle and right thirds The mesentery and peritoneal attachments of the dissected

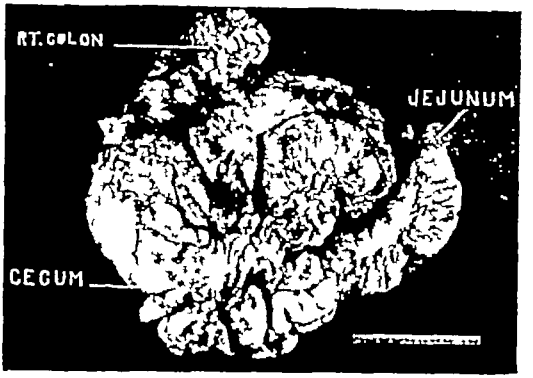


FIG 2 Specimen of jejunum, ileum, cecum, ascending and right colon removed en masse with large abscess due to perforation Of the small intestine only the duodenum and 1½ feet of jejunum were left behind Of the large intestine only the left colon was spared

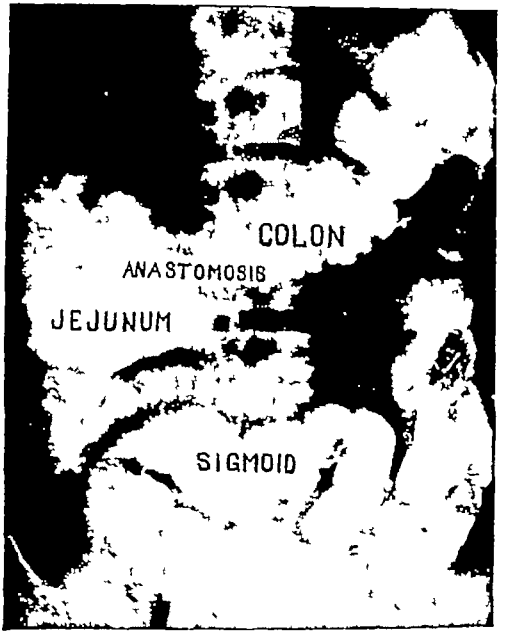


FIG 3 Postoperative colonic roentgenogram showing the following well-functioning anastomosis, enormous dilatation of remaining 1½ feet of jejunum to compensate for excised areas of intestinal tract, and general absence of barium-filled intestinal loops

colon were freed from above downward towards the cecum The next operative step was directed to the proximal jejunum where the jejunal intestine was sectioned 18 inches from its beginning at the ligament of Treitz An attempt was now made to remove all diseased jejunum and ileum down to the cecum by incising and ligating the entire mesentery of the small intestine from above downward In the same manner all remaining posterior attachments and mesentery of the colon were sectioned, thus lifting the entire intestinal mass away from the posterior abdominal wall. The right ureter and spermatic vessels were looked for and identified on the posterior aspect of the mass as it was being freed They were easily dissected off without injury The open jejunum and transverse colon ends were closed with three layers of black silk sutures, and a side-to-side anastomosis was made between the distal end of the jejunum and the left transverse colon The remaining intact mesenteries were approximated by sutures to avoid subsequent herniation, and considerable peritonealization of the raw surfaces posteriorly was accomplished Two Penrose drains were inserted down to the right gutter and pelvis Interrupted alloy steel wire "far and near" sutures were placed in the abdominal wall, grasping peritoneum, muscle, and deep fascia in one layer The operative time was three hours The patient tolerated the operation well A continuous intravenous infusion of glucose and citrated blood throughout the operation was accomplished through a cannula placed in the internal saphenous vein at the ankle The patient left the operating table in fairly good condition.

Pathology Report—Examination of the removed specimen revealed the following "Specimen consists of loops of small and large bowel adherent to each other in most instances, measuring 25 by 22 by 9 cm in its largest diameters Included with the bowel is abundant mesentery and omental tissue The ileocecal junction can be recognized after dissection of the mass The terminal ileal mesentery shows extreme induration and from the surface simulates a solid tumor However, on multiple sectioning, the lumina of the adherent loops of bowel can be recognized Of the entire mass of bowel only about 13 cm. of large bowel and 16 cm. of small bowel in the fixed state are uninvolved by deforming adhesions, and these two loops are situated at each end of the specimen The involved loops show considerable rigidity of the walls, the result of a diffuse fibrous thickening that leaves the mucosal surface relatively intact Mesenteric lymph nodes found deep within the mass are moderately enlarged. Pathologic diagnosis was regional ileitis, ileocolic adhesions, mesenteric lymphadenitis, reactive" (Fig 2)

Postoperative Course—This patient experienced an unusually mild and symptom-free postoperative course in the hospital The temperature never exceeded 100 F except for one evening, twenty-four hours after operation, when it rose to 103 F This was in sharp contrast to the preoperative period during which the temperature rose every evening to 102 F He thus demonstrated an immediate beneficial effect from the removal of the excised inflammatory tissues He was ambulatory the day after operation and discharged on the twelfth postoperative day in excellent condition with a healed wound He was followed closely for a period of fourteen months after operation and enjoyed good health The stools, which after the operation were seven to eight per day and loose, became only two a day and semisolid His weight increased from 110 pounds immediately after operation to 150 pounds The blood pressure was systolic 106 mm. mercury and diastolic 70 mm mercury Hematologic study revealed hemoglobin 11 5 Gm., red blood count 3,610,000 per cu mm, white blood count 10,300 per cu mm

Two months after the operation the following laboratory data were recorded total protein 6 9 Gm. per cent, albumin 4.6 Gm. per cent, globulin 2 3 Gm. per cent, urea nitrogen 24 mg per cent, creatinine 2 7 mg per cent, uric acid 5 3 mg per cent Stool examination showed total fat 14.6 Gm. per cent, fatty acids 3 9 Gm. per cent, neutral fat 10 7 Gm. per cent, total nitrogen 8 6 Gm. per cent microscopic—no fat, moderate vegetable cells and fibers, occasional red blood cells, occasional muscle fibers, and crystals

Moreover, the patient enjoyed perfect health and comfort and was employed full time Recent examination revealed a soft abdomen with no tenderness anywhere Abdominal examination was negative and roentgenographic studies revealed the same compensatory intestinal dilatation as the previous patient (Fig 3)

Comment—An extensive intestinal resection was made for regional ileitis involving the removal of all of the following parts of the intestinal tract the jejunum except for 18 inches, all of the ileum, the cecum, ascending colon, and the right third of the transverse colon All symptoms have disappeared, and almost no alteration of intestinal function has resulted

Summary

1 Two cases are reported of massive intestinal resection for regional ileitis, in one patient the disease had spread over an ileosigmoidostomy anastomosis to involve the sigmoid

2 The first patient had all of the jejunum removed except for the proximal two feet, together with ileum, cecum, ascending colon, two thirds of the transverse colon, and portions of the descending colon and sigmoid

3 In a second patient, 18 inches of jejunum were left behind, and the remaining jejunum, ileum, cecum ascending colon and one third of the transversus were excised

4. Both patients have little or no bowel disturbance and no impairment of their digestive functions Roentgenographic studies reveal compensatory dilatation of the remaining intestinal loops

5 Radical excisional procedures are indicated for extensive disease in chronic regional ileitis patients as the only hope for relief More recent advances in chemotherapy, newer anesthesia methods, preoperative and postoperative nutritional aids, parenteral and vitamin therapy, improved and simplified surgical technics, and early ambulation make it possible to achieve such successes

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"DOCTOR JONES" SAYS—

What we call conscience—that "still, small voice" that's supposed to steer us on what's right and what's wrong—did you ever study out what it is and why? I recall a discussion over whether people were born with a conscience I don't think so I figure it's a collection of indelible memories that've been recorded in our unconscious minds, mainly in childhood They represent the youngster's understanding of experiences things that happened or were said. He did something and it got him into trouble or he was scolded, something else and he was praised. He was told that certain things were naughty The recording system is hooked up, as you might say, with a memostat In later life, when there's a question of right or wrong, it clicks automatically and recorded memories come up They're still unconscious, but they may influence the decision

The kind of conscience a person has depends some on his understanding, as a child, but mainly on the kind of people he was closely associated with They say, sometimes, 'Let your conscience be your guide" Well, with the average person, in ordinary situations, it's a fairly safe guide—certainly better than nothing But there's a lot of good people that have "overactive" consciences that, in some respects at least, are liabilities

We need to remember that most of these mental recordings were made by individuals with practically no experience in life, very little reasoning power and limited understanding of the language spoken around them. What was recorded was their interpretations of what happened or was said Very often their interpretations were wrong For example, a man I knew—his friends said he was "over conscientious" He made himself miserable for fear he'd do something wrong That reaction could've been stirred up by childhood guilt memories based on misconceptions

Keeping a conscience under control and using it to best advantage—it's some like driving a car it helps if we know how it was made and how it works Conscience or car, it still needs someone with judgment "at the wheel"—*Paul B Brooks, M D*

STEVENS-JOHNSON SYNDROME (ERUPTIVE FEVER WITH STOMATITIS AND OPHTHALMIA)

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(*From the Lockport City Hospital*)

IN 1922, Stevens and Johnson first reported this syndrome which, up to that time, had also been called erythema multiforme [1] It was reported as erythema multiforme of Stevens-Johnson variety, which is an entity apart from erythema exudative multiforme (Hebra) These authors introduced the disease as "a new eruptive fever associated with stomatitis and ophthalmia"

On July 23, 1948, a patient was admitted to the Lockport City Hospital suffering from a disease that was diagnosed as Stevens-Johnson syndrome, which exhibited all the classic signs of this clinical entity

Case Report

This seventeen-year-old white boy was admitted with the chief complaints of cough, sore throat, sore mouth, and swollen painful eyes with discharge. The onset of the present illness was apparently on July 18, 1948, at which time the patient complained of feeling tired He was a counselor at a boys' camp in this vicinity The following day he returned to camp and was seen by the nurse there At that time his only complaint was that "he did not feel good." He had a slight fever Two days later, on July 20, 1948, he complained of being drowsy and sleepy and ached as though he had the grippe At this time he went home Two days later, on July 22, 1948, he first developed pain and redness of both eyes with some purulent discharge, a sore mouth, a cough, and a temperature of 102 F He had been given a cathartic, aspirin tablets, and some home cough remedies A physician was called to see him that evening, and the following day he was admitted with a temperature of 104 F , a marked purulent conjunctivitis, and an extremely fetid mouth with many aphthous ulcers and bullae involving the mucous membranes The family history is essentially noncontributory other than that the paternal grandmother had asthma In his past history, he had had measles and mumps as a child but no other serious illnesses and only tonsillectomy and appendectomy operations The systemic review was noncontributory and cast no light on the present condition

Physical examination showed an apathetic, very drowsy, and acutely ill young man The conjunctivae were very injected and ecchymotic, showing a profuse purulent discharge The lids themselves were thickened and reddened with an extreme amount of discharge on the free borders with crusting The corneae were clear and presented no evidence of ulceration His nose anteriorly was essentially negative The breath was extremely fetid, the entire mucous membranes of the mouth, the linings of the cheeks, and hard and soft palate were the sites of a bullous eruption which was covered by a foul exudate beneath which were numerous aphthous ulcers. This process extended to the oropharynx where it abruptly ceased The tonsillar fossae were involved He had a loose bronchial cough. The lungs showed a few scattered rales The heart and blood pressure were normal There were no palpable masses in the abdomen Neurologic examination showed no abnormalities

Two days after admission, on July 25, 1948, he began developing a balanitis and urethral discharge together with a multiform rash on his arms and body The following day he showed more bullous lesions on the right arm which were becoming umbilicated.

The laboratory findings were as follows hemoglobin 100 per cent, red blood cells 4,900,000, white blood cells 17,300, differential polymorphonuclears 80 per cent, small lymphocytes 12 per cent, monocytes 7 per cent, and eosinophils 1 Urine was cloudy and acid with specific gravity 1 020, no albumin, white or red blood cells, sugar or casts, there were occasional amorphous deposits. The throat smear showed numerous pus cells, predominating organism was gram-negative diplococcus with no diphtheroids. In addition, the gum smear showed numerous fusiform bacilli and spirellae Gram stain of pus from the right eye showed numerous pus cells, no organisms, left eye showed numerous pus cells, no organism seen Four days after admission the white blood count had dropped to 14,200 with 54 per cent polymorphonuclears, small lymphocytes 25 per cent, large monocytes 2 per cent, and eosinophils 19 per cent

Under conservative treatment of boric acid compresses to the eyes, penicillin eye drops, and oil compresses to keep the lids from sticking, the eyes rapidly improved He was given Mapharsen 0 03 Gm first dose, 0 045 second dose, and 0 06 third dose for the spirillum infection in the mouth. Penicillin was administered at the rate of 40,000 units every three hours, and two days after admission he was given streptomycin 2 Gm for the original dose and then 1 Gm daily In view of this boy's extreme dehydration he was given one unit of plasma in addition to fluids and a supportive Sippy diet In the hospital the dermatitis began on July 25 with a few discreet macules and papules which became bullous and finally umbilicated These involved especially the upper extremities, the chest, and the neck. The urethritis and balanitis, as previously mentioned, began on July 25, 1948, with the rash Foreskin became moist and ulcerated but soon began to clear At all times the corneae remained normal and clear, although the conjunctivitis and purulent discharge were *persistent, notwithstanding all local treatments.* His temperature gradually began to subside by lysis, falling to 104 F on the second and third day after admission, 103 6 F on the third and fourth day, 102 F on the fifth day, 101 8 F on the sixth day, 101 F on the seventh, and gradually on downward to normal He was discharged on the eighteenth day

Comment

This is a typical case of Stevens-Johnson syndrome fulfilling all of their criteria of ophthalmia, stomatitis, and exudative rash, especially involving the genitalia The syndrome had as the onset an apparently mild respiratory infection There was no allergic background in this case

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Special Article

WORKMEN'S COMPENSATION

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(Chairman, Council Committee on Workmen's Compensation, Medical Society of the State of New York)

AT THIS time in our medical year, county medical societies are resuming their activities, and the district branches have held their annual meetings It is timely, then, to inform county secretaries, chairmen of compensation committees, district branch officers, and our membership in general of the current status of Workmen's Compensation problems and what your bureau is attempting to do to resolve them.

Following the informative and excellent digest of the New York State Disability Benefits law presented by the Honorable Mary Donlon before the annual meeting of the House of Delegates last May in Buffalo, there was circulated to the delegates the amended fee schedule as of May 1, 1949 This has since been mailed to all the doctors throughout the State It aroused a storm of protest immediately because of certain reductions in the fees of specialists and no adjustments for the inequities in the fees allowed general practitioners, which have been in effect since May 1, 1947, (see Sections 1–9, chiefly) A resolution was introduced by Dr Arthur Bedell of Albany objecting to the promulgated revision and the Reference Committee brought in the following report, which was adopted

"Therefore your Reference Committee recommends that the Council Committee on Workmen's Compensation of the Medical Society of the State of New York, with such other well-informed members of the Medical Society of the State of New York whom the president may see fit to appoint, meet with the chairman of the Workmen's Compensation Board or with whomsoever she may desire to appoint, to urge the correction of these inequities as soon as possible and to advise and assist in the implementing of the recommendations made in the report of your Reference Committee and adopted by the House of Delegates in session on May 3, 1949" [Section 173, also 138, proceedings of the House of Delegates, NEW YORK STATE J MED 49 Part II, page 106 (Sept 1) 1949]

Accordingly, on June 21, your chairman conferred with Miss Mary Donlon in New York in the furtherance of carrying out the instructions of the House As the direct outcome of this meeting, the chairman of the Workmen's Compensation Board on June 22 wrote the president, Dr John J Masterson, requesting appointment of a committee of four, two general practitioners and two surgeons, to consider the matter and make recommendations

I believe this represents the important first step in carrying out the purport of the above quoted action of the House

Another significant change which should materially assist us in our efforts to execute the mandates of the House of Delegates is the enlargement of the Council Committee on Workmen's Compensation This has been increased to 11 members and was effected by amendment to the Bylaws of the Medical Society of the State of New York at the last annual meeting Dr Masterson has named the following to serve on this committee Drs J Stanley Kenney, New York, *chairman*, Joseph P Henry, Rochester, James Greenough, Oneonta, Fenwick Beekman, New York, Joseph A. Manzella, Brooklyn, Stanley E Alderson, Albany, Walter S Bennett, Granville, Dwight V Needham, Syracuse, Charles D Squires, Binghamton, Joseph A. Lane, Rochester, Guy S Philbrick, Niagara Falls

We convened this committee for organization and assignment of work on October 13, at which time a conference with representatives of the insurance carriers was also held

We would invite your attention to the Proceedings of the House of Delegates published in full as Part II of the September 1 issue of the JOURNAL. This is a detailed compilation, splendidly edited, and should be read by every member of the Society For your information please note in this issue the index on page 6 under Workmen's Compensation where all references are minutely annotated.

The resolution passed by the House of Delegates advocating free choice of physician under the Federal Workmen's Compensation Law was introduced by your chairman at the House of Delegates meeting of the American Medical Association last June in Atlantic City This was referred to the Reference Committee on Legislation and Public Relations, which approved the resolution and referred it to the Board of Trustees for action Dr Lull has since communicated with both Dr Kaliski and your chairman requesting further information and details, and these were forwarded to him on August 26, stating the reasons for urging an amendment to the Federal law to insure Federal employes free choice of physicians as in New York State

In addition, your Committee is considering and will, to the best of its ability, attempt to implement the many resolutions referred to it by the Council as the result of actions by the House of Delegates Among these are the proposals to simplify the forms for reporting, to secure revision of fees for roentgenologists and physiotherapists, to secure legislation which would revise the method of settlement of disputed medical bills by the Medical Practice Committee, to make further efforts to abolish the Medical Practice Committee and to have returned to the counties of populations of over one million the privileges and responsibilities of all other counties within the Society, to simplify arbitration procedures, to work for the establishment of thoracic surgery with the symbol M-17 as a specialty, and to seek amendment to the present law to harmonize the provisions of the Workmen's Compensation Law and the Education Law concerning group practice

As instructed, Dr Anderton has already forwarded to Miss Donlon a copy of the resolution in which the House voted to support the chairman of the Board in her efforts to obtain the necessary funds

needed for study and tabulation of the medical records available in the department so that the end results of treatment in terms of disability and periods of time may be made available to the profession A letter has also been transmitted to her requesting favorable consideration of the proposal to establish the special subdivision, thoracic surgery

There is much more that might be said which the limitations of space prevent in an article such as this We would again remind our members of the significance of the Workmen's Compensation and Disability Benefits Laws as outstanding examples of social medicine They are in sharp contrast to "socialized medicine" and "statism" as these philosophies are viewed today Pressures for socialization of everything are apparent on all sides. They would include our traditional insurance structures. Here in New York State we have adhered to the private insurance pattern without Federal interference We have the cherished principle of free choice Compensation medicine as practiced in our State is a joint effort of government and private industry It is a State-administered, privately financed program which preserves all the basic liberties of our voluntary, free enterprise system. Let us all cooperate in making it work successfully and well

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DR. WILLIAM OSLER EPISODES RECALLED IN MEMORIAL ISSUE

The centenary of the birth of the world-renowned physician and scientist, Sir William Osler, is commemorated in the July issue of the *Archives of Internal Medicine*, published by the American Medical Association. The entire issue is devoted to intimate accounts of the physician who helped found the Johns Hopkins University Medical School, Baltimore, and who revolutionized the teaching of medicine by revising the courses to include bedside study as well as the study of textbooks Physicians from the United States, Canada, and England who were associated with Dr Osler or who studied under him contribute episodes in his life

Dr Osler, born in Canada on July 2, 1849, received his M.D degree from McGill University, Montreal, in 1872 He early became interested in medical research. In 1884, he became professor of clinical medicine at the University of Pennsylvania His influence was felt in the opening of the Johns Hopkins Medical School in 1893, when stress was put on abundant clinical instruction and bedside education. With the publication of numerous books on new technics and findings in many phases of medicine, his name became a symbol of progress in the medical profession He took an interest in the establishment of medical libraries in Baltimore, Boston, New York, and Toronto and was a prime mover in the National Medical Library Association

In 1905, he went to England to become regius professor of medicine and fellowship at Christ Church, Oxford He was created baronet by King Edward VII in 1911 He died in Oxford, December 29, 1919

The *Archives'* articles describe Dr Osler as a man who was fond of pranks One of his childhood episodes was responsible for his being transferred from one school to another and for an eventual shift in his ambitions from the clergy to the medical profession His writings and sayings are pointed to as examples of picturesque descriptions of medicine A few examples given are

"The pharynx is the garbage dump of the bronchial tubes and nasal passages The street sweepers (ciliated epithelial cells) are constantly on duty and especially busy at night removing the debris from the air passages, to be carried away the next morning"

"Temperature charts—typhoid fever has a 'Pennsylvania Railwaylike' directness, in distinction to the zigzag 'Baltimore and Ohio' chart of aestivo-autumnal fever"

"The physics of a man's circulation are the physics of the waterworks of the town in which he lives, but once out of gear, you cannot apply the same rules for the repair of the one as of the other"

"Huge blocks of coal that would grace the doorstep of any multimillionaire coal dealer as a sign are carried into the lungs from our coal-polluted air, and tubercle bacilli ride in on coal black chargers three abreast Coal barges equal to those on the Susquehanna are constantly passing through unbroken mucosa and along lymph ducts to the bronchial lymph nodes"

Commenting editorially, the *Archives* says, "Without question, the development of internal medicine in this country during the last half century, as traced in the *Archives*, has been notably colored by his [Dr Osler's] personality It is especially appropriate that this journal, devoted to internal medicine and published by an association representing the medical men of this country, should thus honor the man who brought so much honor to American medicine Osler's skill as a clinician, his ability as a teacher and leader of men, his learning, his contributions, not only to medical science but also to literature, through many essays reflecting a broad culture and a sympathetic understanding of men and events—all have set an example of scholarly achievement and have been a source of inspiration to physicians everywhere"

The memorial issue was prepared under the direction of Dr N C Gilbert of Chicago, chief editor of the *Archives*, and members of the editorial board Drs Arthur Bloomfield, San Francisco, Russell M Wilder, Rochester, Minn., Reginald Fitz, Boston, George E Burch, New Orleans, and Paul S Rhoads Chicago Among the United States physicians contributing episodes in the life of Dr Osler was Dr Rufus Cole, Mount Kisco, New York

DEPARTMENT OF MEDICAL CARE INSURANCE

CONDUCTED BY GEORGE P FARRELL, DIRECTOR

Sixty Million Members Protected by Health Insurance

A RECENT survey of health and accident coverage in the United States by the Health Insurance Council indicates that over sixty million persons were protected by voluntary insurance plans in the United States at the end of 1948

During the year 1948 there was an increase from fifty-two million to sixty million for hospital expense, or a gain of 16 per cent Under surgical expense, it increased from twenty-six million to thirty-four million, or 30 per cent Medical expense increased from eight million to twelve million, a gain of 45 per cent Insurance protection against the loss of income due to illness or accident increased from thirty-one million to thirty-three million, or 7 per cent

The Council pointed out that the group entitled to benefits under voluntary plans for loss of income due to disability, the basic type of protection sold by private insurance organizations writing accident and health insurance, now comprises well over half the entire labor force Taking hospital expense under group insurance and the Blue Cross plans, it is found that only about three and a quarter million persons were covered at the end of 1939, a mere ten years ago The coverage now for these two types of organizations is over forty-six million, which is fifteen times the number covered in 1938 and more than double the figure of five years ago

For surgical expense under group insurance and plans sponsored by medical societies or affiliated with the Blue Cross, there were only 100,000 members ten years ago, and at the end of 1948 a tremendous gain resulted in a total of twenty-four million

As for medical expense insurance, it was practically unknown ten years ago, whereas membership increased to seven and a half million at the end of 1948

Membership in the Blue Cross plans as of June 30, 1949, was thirty-four and a half million Membership in the nonprofit voluntary medical plans which are approved by county or state medical societies now exceeds eleven million.

The six nonprofit voluntary medical care plans in New York State approved by the Medical Society of the State of New York have made tremendous progress during the past three and a half years (Tables 1 and 2) As of December 31, 1945, total membership was 268,000, and each year has shown a progressive increase During 1946 the increase was 329,000, in 1947, 425,000, and last year over a half-million During the first six months of this year the increase in membership was over 347,000 and, at the present rate of growth, should show an increase of over 700,000 at the end of 1949 As of June 30, 1949, New York State had the largest membership of any state in the Union with a total of 1,886,000 members, and benefits to subscribers have shown corresponding increases During 1946 benefits amounted to approximately $2,000,000, in 1947, $3,681,000, and last year were in excess of $6,000,000, and, at the present rate of membership increases, benefits to members in 1949 will be approximately $10,000,000

NEW YORK STATE VOLUNTARY NONPROFIT MEDICAL CARE INSURANCE PLANS

(Approved by the Medical Society of the State of New York)

YEARS ENDING DECEMBER 31, 1946, 1947, AND 1948, AND SIX MONTHS ENDING JUNE 30, 1949

TABLE 1 —MEMBERSHIP PROGRESS

	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
December 31 1945	161 128	61 060	41 060	4 000	0	0	268 248
Increases							
During 1946	244 164	39 221	27 687	6 808	11 914	0	329 794
During 1947	325 001	19 427	20 122	4 014	34,231	22 778	425 573
During 1948	398 674	40 163	20 594	4 784	22 508	28 921	515 644
During 1949 to June 30	238 527	12 369	9 470	2 415	15 371	6 296	347 485
Total Increases	1 206 366	111 180	77 873	18 021	84 024	57 995	1 618 496
Total Membership (as of June 30 1949)	1 367 494	172 241	119 433	22 021	84 024	57 995	1 886 744

TABLE 2 —FINANCIAL PROGRESS

Plan Location	Earned Premium Income	Claims Incurred	Administrative Expense	Special Contingent Surplus	Unassigned Surplus	Total Surplus
New York						
December 31 1946	$1 817 681	$ 995 542	$ 242 439	$136 954	$471 489	$ 608,443
December 31 1947	3 986 028	2 320 738	847 461	305 880	641 928	947 808
December 31 1948	6 618 729	4 390 730	1 398 534	581 805	788 445	1 370,250
June 30 1949	4 606 806	3 249 136	940 1o3	781 243	854 167	1 635 410
Buffalo						
December 31 1946	758 869	674 565	116 059	73 965	8 254	82 219
December 31 1947	830 264	654 176	100 846	106 678	57 116	163 794
December 31 1948	979 634	686 731	97 647	146 584	105 649	252 233
June 30 1949	613 132	486 768	54 881	172 266	114 764	287 030
Utica						
December 31 1946	433 393	281 066	59 168	52 815	117 866	170 681
December 31 1947	621 067	441 359	84 483	78 060	151 557	229 615
December 31 1948	809 777	643 072	113 644	110 864	135 782	246 646
June 30 1949	469 616	372 623	64 378	129 649	155 794	285 443
Syracuse						
December 31 1946	75 995	56 341	12 253	4 061	12 624	16 685
December 31 1947	152 488	102 929	21 736	10 161	35 317	45 478
December 31 1948	197 406	150 239	24 501	18 057	47 874	65 931
June 30 1949	116 088	97 196	14 623	22 700	48 024	70 724
Rochester						
December 31 1946	13 126	2 355	0	0	0	0
December 31 1947	223 762	100 632	36 147	10 015	46 316	56 331
December 31 1948	368 545	253 521	56 782	25 381	63 488	88 869
June 30 1949	255 677	183 936	36 567	36 055	66 098	102 153
Albany						
December 31 1946	0	0	0	0	0	0
December 31 1947	96 056	61 725	14 313	3 842	16 174	20 016
December 31 1948	325 577	245 095	34 804	17 511	24 253	41 764
June 30 1949	238 522	196 773	22 142	27 984	25 289	53 273

NOTE During 1948 Buffalo made payments from unassigned surplus to member physicians covering unpaid fees for the years 1941–1945 in the amount of $57 159

CONTAMINATED MEAT AND MILK CAUSE SUMMER FOOD POISONING

"Food poisoning' of the milder type called food infection, which is prominent in summer, usually comes from eating contaminated meat or milk, says James A Brussel, M D , assistant director of Willard State Hospital, New York Writing in the August issue of *Hygeia*, health magazine of the American Medical Association, Dr Brussel points out that food infection can be attributed especially to meat from diseased animals and dairy products This condition can often be traced to meat pies, salads, and unsupervised milk and milk product manufacturing Items handled in the kitchen and allowed to stand some time before serving are also to be suspected, he indicates

Food infection is caused by germs which the foods contain. Symptoms of the disease are fever, gastrointestinal irritation, vomiting, and diarrhea The disease usually is mild and recovery is rapid without complications in the common, less serious, infections Another form of "food poisoning," food intoxication, has no seasonal identification but is a very severe disease It is caused by poisons produced by germs in food, not by food itself These germs may enter food during preparation and multiply if it is stored without refrigeration

"Beware of homemade products, particularly such products as sausage meat and beef and pork products manufactured without the supervision and approval of the United States Public Health Service and kept awaiting sale in places without proper refrigeration," Dr Brussel advises "Carefully wash all foods eaten raw, first making certain your own hands are clean Don't eat uncooked or wild items unless you are sure you know what you are depositing within your body The hazards here include poisonous mushrooms, certain fish, and bivalves

"If you are swayed by the prejudice of cow-to-consumer milk and milk products, remember that only clean dairies that scrupulously follow the most rigid aseptic technic, pasteurization, and refrigeration, together with mechanical bottling, bring you dairy products you can confidently feel are free from tuberculosis, diphtheria, streptococcus, and other disease organisms

"The home-preserved food not properly sealed at time of making is a prime source of spoilage Beware of the can whose ends are bulging because of the putrefactive gases within When a canned food has a rancid odor, gas bubbles, or unappetizing, softened parts, throw it out!"

NECROLOGY

Simon Davis, M.D , of Brooklyn, died on September 26 at his home at the age of sixty-five Dr Davis was graduated from the Long Island College Hospital Medical School in 1904 and had practiced in Brooklyn for forty-four years He was a member of the Kings County and New York State Medical Societies and the American Medical Association

Harry Percy Dawe, M.D , of Pawling, died on September 25 at his home at the age of eighty-six. Dr Dawe received his medical degree from the New York University School of Medicine in 1886 and had practiced in Brooklyn before moving his practice to Pawling For thirty-five years, before his retirement, Dr Dawe was health officer for the town and village of Pawling and also served for thirty years as police justice of the village He was an instructor for the Red Cross

Edward Gillespie, M D , of Binghamton, died on September 23 at the Binghamton City Hospital at the age of seventy-seven Dr Gillespie was graduated from the Albany Medical College in 1896 and for forty-one years, prior to his retirement in 1937, was psychiatrist at the Binghamton State Hospital At the time of his retirement he was first assistant superintendent of the State Hospital He was also consulting psychiatrist at the Binghamton City Hospital

Dr Gillespie was a member of the Binghamton Academy of Medicine, the Binghamton Psychiatric Society, the Broome County and New York State Medical Societies, and the American Medical Association

John Gromann, M D , of Utica, died on September 23 at St Luke s Hospital, Utica, at the age of seventy-two Dr Gromann received his medical degree from the Jefferson Medical College in Philadelphia, Pennsylvania, in 1900, and interned in the Faxton Hospital in Utica. For thirty-six years Dr Gromann had served as a surgeon on the staff of St Luke's Hospital. A Fellow of the American College of Surgeons, Dr Gromann was a member of the Utica Academy of Medicine, the Utica Medical Society, the Oneida County and New York State Medical Societies, and the American Medical Association

Francis Bernard Hart, M D , of Brooklyn, died on September 22 at his home at the age of sixty-eight Dr Hart was graduated from the College of Physicians and Surgeons, Columbia University, in 1905 He was a World War I veteran, and served in World War II as consultant to an examining board Dr Hart was attending pediatrician at St Mary's and Holy Family Hospitals in Brooklyn He was a member of the Brooklyn Pediatric Society, the Kings County and New York State Medical Societies, and the American Medical Association

Verner Kennedy, M.D , of Utica, died suddenly at his home on September 27 at the age of fifty-nine, after a heart attack. Dr Kennedy was graduated from the New York Homeopathic Medical College and Flower Hospital in 1913 and served overseas during World War I as a captain in the medical corps He began his practice in Utica in 1919 In 1924 Dr Kennedy was elected departmental surgeon of the Veterans of Foreign Wars at the State encampment in Binghamton He was attending surgeon at the Utica Memorial Hospital and a member of the American Institute of Homeopathy, the Military Surgeons' Association of the United States, the New York State Homeopathic Medical Society, and the Utica Homeopathic Medical Society

Julius Henderson Kevand, M D , of Syracuse, died on September 29 at the Mayo Clinic, Rochester, Minnesota, at the age of seventy-two Dr Kevand was graduated from the Syracuse University College of Medicine in 1898 He was consultant in ophthalmology at the Syracuse General and University Hospitals and was a member of the Syracuse Academy of Medicine, the Onondaga County and New York State Medical Societies, and the American Medical Association

John Wesley Munro, M.D , of Syracuse, died on June 15 at the age of seventy-three Dr Munro received his medical degree from the University of Buffalo School of Medicine in 1903

Joseph Rosenthal, M.D , of Brooklyn, died on September 24 at his home after a heart attack, at the age of sixty-five Dr Rosenthal was graduated from the College of Physicians and Surgeons, Columbia University, in 1906, and interned at Mount Sinai Hospital, New York City, before starting his practice in Brooklyn For many years Dr Rosenthal was attending physician at the Jewish Hospital of Brooklyn In 1947 he retired as attending physician there and became consultant in medicine and president of the medical board. He was also consultant at the Brooklyn Hebrew Home and Hospital and the Jewish Sanitarium and Hospital for Chronic Diseases and chief of the department of medicine and president of the medical board of Israel Zion Division of Maimonides Hospital.

Dr Rosenthal had been clinical professor of medicine at the Long Island College Hospital and was past president of Phi Delta Epsilon, national medical fraternity He was a Diplomate of the American Board of Internal Medicine and a member of the Kings County and New York State Medical Societies and the American Medical Association

Francis J Ryan, M D , of Syracuse, died on October 2 at the age of seventy-four Dr Ryan received his medical degree from the Syracuse University College of Medicine in 1899 He was one of the first presidents of the New York State Society of Industrial Surgeons Dr Ryan was a member of the Syracuse Academy of Medicine, the Onondaga County and New York State Medical Societies, and the American Medical Association

Ralph Douglas Skinner, M.D , of New York City, died on June 5 at the age of sixty-seven Dr Skinner was graduated from the Baltimore Medical College in 1905 and was consulting physician at the Knickerbocker Hospital in New York City

Lawrence Henry Smith, M D , of East Aurora, died suddenly on September 25 at his home at the age of seventy Dr Smith received his medical degree from the University of Buffalo School of Medicine in 1907 and had practiced in East Aurora for the past forty-five years During World War I he served as a captain in the medical corps Dr Smith was a member of the Erie County and New York State Medical Societies and the American Medical Association.

Pier Giuseppe Spinelli, M.D , of New York City, died on May 10 at the age of seventy-seven Dr Spinelli received his medical degree from the University of Naples Medical School in 1898

William Warren Spiro, M.D , of Long Island City,

[Continued on page 2592]

HOSPITAL NEWS

New York City's Hospital Construction Program

HIGHLIGHTS of the program for new municipal hospitals for the City of New York have been outlined by Mayor William O'Dwyer, Dr Marcus D Kogel, commissioner of hospitals, and Mr Frederick H. Zurmuhlen, commissioner of public works A $150,000,000 future hospital construction program, and a $42,000,000 current hospital construction program are described

The Department of Hospitals plans a construction program for hospitals urgently needed to replace many obsolescent and inadequate structures and to increase hospital services in areas now inadequately served A bond issue by the City of New York, outside its constitutional debt limit, will provide the $150,000,000 needed to complete this stage of the long-range program.

On November 8, 1949, the voters of the City and the State, through a referendum, will be given an opportunity to sanction this urgently needed bond issue to be used solely to build new municipal hospitals and related facilities

The following projects are included in the program

Five New General Care Hospitals—The replacement of Bellevue and Metropolitan Hospitals in Manhattan, the replacement of New York City Hospital (now located on Welfare Island) in Queens, the replacement of Coney Island Hospital in Brooklyn, and a new 750-bed general hospital in the East Bronx.

Extensive Alterations and Additions to Three Existing General Care Hospitals—Additions to increase the bed capacity at Queens General Hospital in Queens and Morrisania Hospital in the Bronx, and completion of the Outpatient Addition at Lincoln Hospital in the Bronx.

Two New Nurses Homes and Schools—Replacement of the existing nurses home at Bellevue Hospital in Manhattan, and a new school and home at Queens General Hospital in Queens

New Chronic Disease and Tuberculosis Hospital on Welfare Island—A new hospital which will serve all five boroughs of the City

Three New Tuberculosis Hospitals—Replacement of Seton Hospital in the Bronx, a new tuberculosis hospital in the Harlem area in Manhattan, and a tuberculosis hospital in conjunction with the new general hospital in the East Bronx These institutions will give city-wide service

Two Related Hospital Facilities—A new laboratory and morgue at Kings County Hospital in Brooklyn, and a new Borough Laundry at Kingston Avenue Hospital in Brooklyn which will serve all Brooklyn municipal hospitals

Modernization and Alterations—All hospitals in the five boroughs

The current $42,000,000 municipal hospital construction program, funds for which have been provided by the present City administration, is the first municipal hospital construction to take place since before World War II The program includes the following hospitals now under construction Francis Delafield Hospital, Manhattan, James Ewing Hospital, Manhattan, Tuberculosis and Chronic Disease Hospital, Brooklyn, Bird S Coler Memorial Hospital, Welfare Island, laundry, garage, and firehouse, Welfare Island, and outpatient building and ambulance station, College Point

The current and future hospital facilities of the New York City Department of Hospitals are designed and constructed by the Department of Public Works in collaboration with the Department of Hospitals

Hospitals Under Construction in State

CORNERSTONE laying and dedication ceremonies have been held recently for several new hospitals in New York State, and reports have been made on additions and construction for several others *Among these are the following*

Jewish Sanitarium and Hospital for Chronic Diseases, Brooklyn—Dedication ceremonies for the new hospital building of the Jewish Sanitarium and Hospital for Chronic Diseases in Brooklyn were held on Sunday, September 18 The addition of this new building increases the institution's capacity to over 800 beds, with special emphasis on treating persons in the acute stages of chronic diseases The new building includes medical research laboratories, a cerebral palsy center, a tumor detection clinic, a rheumatic fever ward, and the rehabilitation division

Letchworth Village, Thiells—On October 13 Governor Thomas E. Dewey laid the cornerstone of an infirmary at Letchworth Village in Thiells, Rockland County, in a ceremony which marked the formal opening of the State's construction program to increase the capacity of its overcrowded mental institutions Participating in the ceremony were Dr Harry C Storrs, director of Letchworth Village, and Dr Frederick MacCurdy, State commissioner of mental hygiene

Bird S Coler Memorial Hospital, Welfare Island—The cornerstone ceremony for the new Bird S Coler Memorial Hospital on Welfare Island was held on October 10 with Mayor William O'Dwyer officiating and Dr Marcus D Kogel, City commissioner of hospitals, presiding The 2,000-bed hospital for chronic diseases is the second of three units for the care of long-term patients which will eventually designate Welfare Island as a medical center for the care and treatment of long-term cases The hospital will be affiliated with the New York Medical School and Flower Fifth Avenue Hospitals, which will provide the professional staff

Columbia-Presbyterian Medical Center, New York City—Construction was started in September on Columbia University's $2,000,000 cancer research center atop the Vanderbilt Clinic building at the Columbia-Presbyterian Medical Center, New York City Officials representing the University, Presbyterian Hospital, and the U S Public Health Service

were present as workmen began the task of adding five floors to the nine-story clinic building Four of the new floors will house the research unit, and a fifth will be used by the hospital. Officiating at the ceremony was Dr Willard C Rappleye, dean of Columbia University's faculty of medicine

Montefiore Hospital, the Bronx—A $990,000 construction and modernization repair project is now under way at Montefiore Hospital, the Bronx, with the construction of two new wings planned to provide expanded facilities One of the units will house operating rooms to help meet the hospital's increased surgical case load, and the second will contain x-ray facilities for diagnostic examinations

Wyckoff Heights Hospital, Ridgewood, Queens—Ground was broken in August for a six-story, $1,500 000 addition to the Wyckoff Heights Hospital in Ridgewood, Queens, with special ceremonies and guest speakers The addition will add 107 beds to the hospital's capacity

Inventory of Professional Registered Nurses Available

A COMPLETE inventory of registered professional nurses in the United States and its territories is being released by the American Nurses' Association at the request of the National Security Resources Board.

The inventory of nurses, which has been secured by the A.N A. through cooperation with state nurse-licensing boards and state nurses' associations, provides data on the number and location, age, marital status, responsibility for dependents, whether the nurse is actively engaged in nursing and the field of employment and position, type of preparation, and experience in special fields

Paper bound copies of the inventory are available from the American Nurses' Association, 1790 Broadway, New York 19, New York, at $1 00 per copy

Brooklyn Observes Hospital Sunday

TWENTY-ONE voluntary hospitals in Brooklyn participated on October 9 in the first annual Hospital Sunday, with each hospital demonstrating for visitors a special phase of its work Included were demonstrations of the giant magnet for removing foreign bodies from the eye at Brooklyn Eye and Ear Hospital and actual treatment of a child polio patient at St Charles Hospital.

Visitors were greeted at each hospital and taken on a guided tour of the plant The purpose of the event was to enable residents to know more about their voluntary hospitals Hospitals taking part included

Beth-El, Brooklyn Eye and Ear, Brooklyn Thoracic, Bushwick, Holy Family, St Giles the Cripple, Jewish, Jewish for Chronic Diseases, Long Island College, Lutheran, Maimonides, Methodist, Norwegian Lutheran, Prospect Heights, St Catherine's, St Charles, St John's, St Mary's, St Peter's, and Wyckoff Heights

NEWS NOTES

Dr William Gazeley of Schenectady has been named chairman of the medical board of St Clare s Hospital, Schenectady Dr Gazeley is a former president of the Schenectady County Medical Society

Other members of the board include Dr Glen Smith, secretary, and Dr H M Rozendaal, Dr H E. Reynolds, Dr William H Mallia, and Dr S C Meigher

Dr Melba Antonetti of Troy has been appointed resident in anesthesia at the Albany Hospital, effective November 1

Dr Milton A. Jacobs, supervising psychiatrist at the St. Lawrence State Hospital in Ogdensburg for the past twelve years, is now assistant director of the Willowbrook State School, Staten Island

Dr Victor Drucker, formerly of Teaneck New Jersey, has been appointed radiologist at the Binghamton City Hospital, Binghamton, effective October 1 Dr Frank M Dyer was recently elected vice-president of the board of the Hospital

Dr Leo R Tighe, formerly connected with the Hudson River State Hospital at Poughkeepsie, has been appointed manager of the Veterans Hospital at Augusta, Georgia.

The Clinical Pathologic Conferences at Mount Sinai Hospital were resumed on October 5, and are being held each Wednesday afternoon at 3 30 P M. in the Blumenthal Auditorium of the Hospital

The weekly Gastroenterologic Conferences at Bellevue Hospital were resumed Monday, October 10, at 3 30 P M , in the G 6 amphitheater, under the supervision of Dr Jacob Buchstein As in previous years, these conferences consist of a clinical, pathologic, and radiographic presentation of the gastrointestinal cases that have come to operation or autopsy

Establishment of a special thirty-week course in hospital construction and alteration has been announced by Dr John Gorrell, associate professor of hospital administration at Columbia University's School of Public Health Open to hospital executives and administrators, the course is sponsored by the Greater New York Hospital Association, the Hospital Council of Greater New York, and the United Hospital Fund

MEDICAL NEWS

To Hold Annual Christmas Seal Sale

THE forty-third annual Christmas Seal sale will be conducted this year from November 21 to December 25, under the supervision of the National Tuberculosis Association

Three thousand affiliates of the national tuberculosis group are working to obtain funds to eradicate tuberculosis through programs of education, case finding, and rehabilitation, and through support of medical research

Christmas seals are distributed each year at the holiday season for use by all donors who annually support the drive for funds to combat tuberculosis.

Dr R D Thompson is president of the National Tuberculosis Association

Announce Grants for Mental Health Research

PUBLIC Health Service grants for research on causes and methods of preventing and treating mental and emotional disorders have been announced The grants total $139,023 and are in addition to 54 research projects totaling $974,944 which have received support since 1947 when Federal aid for mental health research first became available The grants were made by the National Institute of Mental Health of the National Institutes of Health, research branch of the Public Health Service, following recommendation by the National Advisory Mental Health Council and approval by Surgeon General Leonard A Scheele of the Public Health Service

The following have been assigned to institutions in New York State

Dr Fred A Mettler, associate professor of anatomy, Columbia University, College of Physicians and Surgeons, New York City a grant of $7,128 for study of "Space-controlled Neural Lesions"

Dr George N Daniels, clinical professor of psychiatry, Columbia University, New York City a grant of $7,344 for study of "Psychologic Factors in Amenorrhea", also a grant of $13,700 for study of "The Psychosomatic Aspects of Ulcerative Colitis"

Dr Morris B Bender, associate professor of neurology, New York University College of Medicine, New York City a grant of $3,726 for study of "Changes in Perceptual Functions in Organic Psychoses"

Dr Lauretta Bender, associate professor of psychiatry, New York University College of Medicine, New York City a grant of $21,276 for study of "Childhood Schizophrenia."

Dr Benjamin Malzburg, director of the bureau of statistics, New York State Department of Mental Hygiene, Albany a grant of $7,000 for "Studies Giving Rates of Discharge and of Mortality (on a Life Table Basis) for Patients Admitted to the New York Civil State Hospitals, by Sex and Major Groups of Mental Disorders"

Masonic Grants for Rheumatic Fever Research

SEVEN New York State medical colleges and research groups received grants totaling more than $200,000 from the Masonic Foundation for Medical Research and Human Welfare at a ceremony September 28 in the Grand Lodge Room of Masonic Hall, New York City

The grants are to go toward discovery of the cause and cure of rheumatic fever—a work which the seven colleges have been engaged in since last October—and the sums applied to this work are based on the estimated needs of the laboratories concerned Checks were presented by Mr Raymond C Ellis, manager of the Home Life Insurance Company and president of the Masonic Foundation

Recipients were Dr Arthur Christian DeGraff, of the New York University College of Medicine, director of the Irvington House for Cardiac Children, Irvington on Hudson, $21,276, Dr John H Talbott, dean of the University of Buffalo, School of Medicine, $17,820, Dr Currier McEwen, dean of the New York University College of Medicine, $62,532, Dr J G Fred Hiss, of the Syracuse University College of Medicine and the Welting Johnson Memorial Hospital for Children, Syracuse, $27,000, Dr Ralph H Roots, of the College of Physicians and Surgeons, Columbia University, $21,600, Dr Russell L Cecil, of the Cornell University Medical College and the Arthritis Clinic at New York Hospital, $17,280, and Dr William S McCann of the University of Rochester, School of Medicine and Dentistry, and the Strong Memorial Hospital, Rochester, $34,608

Elect Officers for District Branches

NEW officers were elected at meetings of the District Branches of the Medical Society of the State of New York, held recently at central points in the respective districts Officers are chosen for two-year terms, and will take office at the adjournment of the meeting of the 1950 House of Delegates of the State Society

Officers elected include

Fifth District Branch Dr Wardner D Ayer, Syracuse, president, Dr Arthur F Gaffney, Clinton, first vice-president, Dr Richard B Cuthbert, Jr, Canastota, second vice-president, Dr Donald C Tulloch, Ogdensburg, secretary, and Dr Olin J Mowry, Minetto, treasurer

Seventh District Branch Dr George H Gage, Rochester, president, Dr Samuel A. Munford, Clifton Springs, first vice-president, Dr Glenn C Hatch, Penn Yan, second vice-president, Dr James J Yanick, Hornell, secretary, and Dr Everett H. Wood, Auburn, treasurer

Eighth District Branch Dr John C Kinzly, North Tonawanda, president, Dr Henry S Martin, Warsaw, first vice-president, Dr Sydney L McLouth, Corfu, second vice-president, Dr Henry W Ingraham, Jamestown, secretary, and Dr Lawrence C Older, Cuba, treasurer

MEDICALLY SPEAKING—

Prize Essay on Poliomyelitis—The *New England Journal of Medicine* announces a prize essay contest open to all members of the class of 1950 of any approved medical school. The subject will be "Recent Advances in the Recognition, Treatment, and Control of Poliomyelitis" The prize for the best essay will be $100, and papers must be sent to the editor of the *Journal* by March 15, 1950 For further particulars apply to the *New England Journal of Medicine*, 8 Fenway, Boston 15

A.E.C Approves 18 Research Proposals in Biology and Medicine—The Atomic Energy Commission Division of Biology and Medicine has approved 18 research proposals in the field of biology and medicine during the past three months Among these was a study of the defenses against hemorrhage by Dr Eugene L Lozner, Syracuse University

Army Commissions 169 Civilian Medical Interns—Commissions as first lieutenants in the Army Medical Corps Reserve have been given to 169 medical graduates who have been accepted for internship training in approved civilian hospitals, it was announced by Major General R W Bliss, the Surgeon General They have been sworn in and called to active duty, with full pay and allowances of their grade, and will remain in the civilian hospitals for the completion of their internship

With this group the Army Medical Department inaugurates the second year of civilian intern training under its Graduate Professional Training Program. Additional rosters of selected candidates will be announced from time to time

Under the provisions of the Civilian Intern Training Program, a medical school graduate who has been accepted for internship by a civilian hospital approved by the Council on Hospitals and Medical Education of the American Medical Association may apply for a commission as first lieutenant in the Medical Corps Reserve If accepted, he is called to duty and assigned in a training status at the civilian hospital of his choice. On completion of his internship, he serves two years for each year of training he has received as a Reserve officer

Another phase of the Graduate Professional Training Program is military intern training, in which selected medical graduates complete their internship in one of 10 Army general hospitals approved for medical teaching

Applications for either phase are invited from prospective graduates who will be not less than twenty-one nor more than thirty-two years old on the date their internship will begin, who are citizens of the United States with high moral character, and who meet the physical requirements for a commission in the Regular Army

Detailed information can be received from any Army recruiting office, or by writing The Chief, Personnel Division, Office of the Surgeon General, Department of the Army, Washington 25, D C

Subjects for Salmon Lectures Announced—Dr Stanley Cobb, psychiatrist-in-chief of the Massachusetts General Hospital, Boston, has announced the subjects of the Salmon Memorial Lectures which he will deliver on November 8, 9, and 10 at the New York Academy of Medicine The program is as follows under the general topic of "Emotions and Clinical Medicine"

Lecture I—November 8, 8 30 P M —"Semantics—Definitions" and "Primitive Brain and Comparative Anatomy"

Lecture II—November 9, 8 30 P M —"Physiology of the Emotions" and "Pathology"

Lecture III—November 10, 8 30 P M.—"Clinical Implications."

The 1949 lectures are the seventeenth series presented in memory of Thomas William Salmon, M D Each year, the Salmon Committee on Psychiatry and Mental Hygiene, appointed by the New York Academy of Medicine, selects as lecturer a specialist in psychiatry, neurology, or allied fields either in this country or abroad, who has made an outstanding contribution to his specialty

Ground-breaking Ceremony for New Sharp & Dohme Laboratories—Sharp & Dohme held an official ground-breaking ceremony for its new $4,000,000 Medical Research Laboratories at West Point, Pennsylvania, on September 27 before a distinguished group of officials of Montgomery County and civic, church, and business leaders from the nearby communities Also on hand for the occasion were officers of Sharp & Dohme, scientific directors in the company's Medical Research Division, and employes at the West Point plant

Announcement of Vacancies—Psychiatrists, psychiatric residents, and registered nurses are needed for Central State Hospital in the city of Indianapolis, Indiana Vacancies exist for several classifications of staff membership to bring to full complement the personnel needed to complete the expansion program now activated. The hospital is approved for residency training, is associated with the Indiana University Medical Center (student teaching), conducts active therapeutic programs and seminars for diagnosis, management, and disposition of patients, conducts a follow-up clinic for patients on six months convalescent leave from the hospital, has the advantage of very progressive social service and psychology departments, complete clinical laboratory, research director, comprehensive library, pharmacy, occupational and recreational therapists, dentists, etc Starting salaries range from $4,500 for residents to $7,200 with complete maintenance for self and family Include pertinent biographic data in first letter Address communications to Acting Director, Indiana Council for Mental Health, Fair Grounds, Indianapolis, Indiana.

Second Postgraduate Course in Diseases of the Chest—The second postgraduate course in Dis-

eases of the Chest will be given at the Hotel New Yorker from November 14 through 18, 1949 The course is given under the auspices of the American College of Chest Physicians in cooperation with the members of the staffs of all the New York City medical schools and hospitals Last year the course was attended by 75 doctors

Various modern aspects of chest diseases will be discussed, including physiology, pathology, etiology, and treatment Half a day will be devoted to the problem of industrial diseases of the chest

Bequests to New York Medical College, Flower and Fifth Avenue Hospitals—Dean J A. W Hetrick of the New York Medical College, Flower and Fifth Avenue Hospitals, has announced a bequest of $500,000 to be used as a special endowment for the division of surgery in the Medical College and Hospitals The Valentine Professorship of Surgery has been established, and Dr James M Winfield, professor of surgery and director of the Department of Surgery has been named to that Professorship The bequest was made through the generosity of the late Eliza and Samuel Valentine Another bequest of $240,000 from the late William Nelson Cromwell was also announced.

The charter of the New York Medical College has been amended upon recommendation of the Board of Regents of the State of New York so that in addition to the degrees of Doctor of Medicine, Master of Medical Science, and Doctor of Medical Science, Bachelor of Science degrees in specified fields may be granted to qualified students, and honorary degrees of Doctor of Science and Doctor of Humane Letters may be conferred by the College

New York Academy of Medicine Donates 12,000 Volumes to Southwestern Medical College—Miss Janet Doe, librarian of the New York Academy of Medicine, recently made public the Academy's donation of 12,000 volumes to the Southwestern Medical College in Dallas, Texas These volumes are the larger portion of a gift of 20,000 volumes received by the New York Academy of Medicine from the New York Public Library

The 20,000 volumes donated represent the original collection of medical books accumulated by the New York Public Library during the nineteenth century, when Dr John Shaw Billings, earlier noted for his association with the Army Medical Library, was connected with the New York institution

In connection with the Academy's gift of 12,000 volumes to the Southwestern Medical College in Dallas, Texas, Miss Doe stated that all of the larger medical libraries are located east of the Mississippi, and it seemed not only useful but imperative to hasten the growth of a good medical collection in a new area in our West

New Publications of the American Heart Association—A new official monthly publication of the American Heart Association, to be known as *Circulation—The Journal of the American Heart Association*, will begin publication in January, 1950, according to a joint announcement by Dr H M Marvin, president of the Association, and Henry M Stratton, president of Grune & Stratton, medical publishers.

With the new publication, the American Heart Association will terminate sponsorship of the monthly *American Heart Journal* with the December, 1949, issue

In the inaugural issue of the quarterly journal, *The American Heart*, in September the allocation of $700,000 for heart research this year was announced Research awards from the national office totaled $250,000 in 1949, it was stated, while research funds spent by affiliates include $213,000 distributed by the New York Heart Association and $144,000 by the Chicago Heart Association. The American Heart Association's own allocations this year were from funds raised during its 1948 campaign, a minimum of $380,000 from 1949 campaign funds has already been earmarked for future research wards, according to the publication

U S Representatives Attend Conference on Radiation Tolerances—A group of 11 leading radiologists and health physicists represented the United States at a three-nation conference on radiation tolerances held at the Canadian Atomic Energy Establishment at Chalk River, Ontario, September 29 and 30 The conference was under the Technical Cooperation Program of the United States, the United Kingdom, and Canada, which was established early in 1948 and does not include weapons information. One of the primary purposes of the conference was to hold discussions leading toward the establishment of uniform radiation tolerance standards among the atomic energy projects of the three nations

Among the U S representatives were Dr G Failla, professor of radiology, College of Physicians and Surgeons, Columbia University, and Dr Bernard S Wolf, Medical Division, Atomic Energy Commission, New York Operations Office

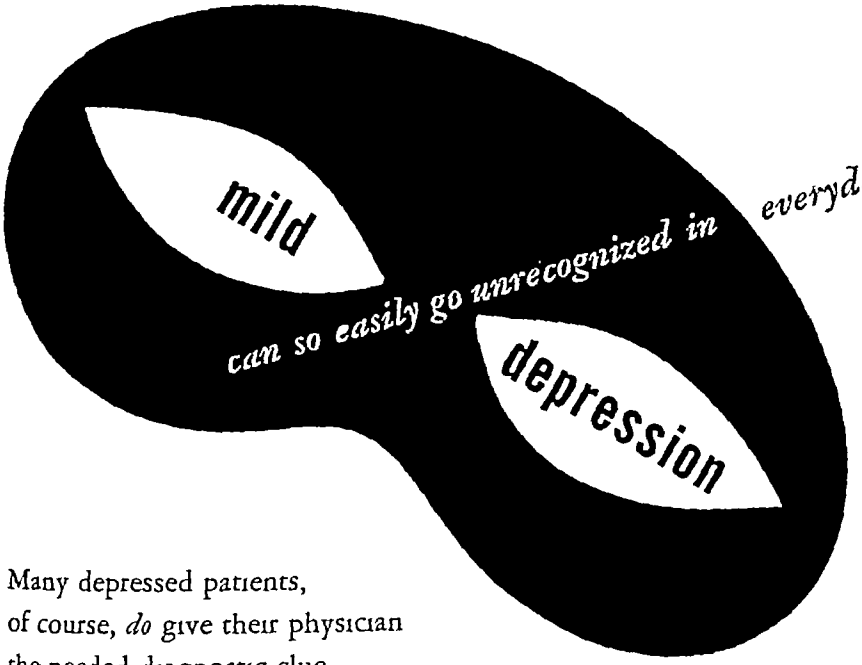
Pennsylvania Medical Society Postgraduate Education Courses—Postgraduate education courses sponsored by the Medical Society of the State of Pennsylvania have been announced Registration is open to any member of the Medical Society of the State of New York for the usual $25 fee, and it is hoped that these courses will be of some interest to New York physicians living close to the borders of Pennsylvania. For further information address inquiries to Committee on Graduate Education, Medical Society of the State of Pennsylvania, 230 State Street, Harrisburg, Pennsylvania

NECROLOGY

[Continued from page 2587]

died on July 13 at the age of sixty-seven Dr Spiro was graduated from the University and Bellevue Hospital Medical College in 1904. He was a member of the Queens County and New York State Medical Societies and the American Medical Association

George Webb, M.D, of Brooklyn, died on August 20 at the age of sixty-two Dr Webb received his medical degree from the University of Breslau in 1909 He was a Fellow of the American College of Surgeons and a member of the Brooklyn Surgical Society, the Kings County and New York State Medical Societies, and the American Medical Association



Many depressed patients,
of course, *do* give their physician
the needed diagnostic clue
Without being asked, they tell of feeling
"tired all the time" or "despondent or
"lethargic" Countless thousands of others,
however, will run to their physician with
every small somatic complaint and yet never
mention what really troubles them most
their depression—a condition that so often
leads to physical as well as mental break-up

In most of these patients, the uniquely
"smooth' anti-depressant effect of
'Dexedrine' Sulfate can help restore
mental alertness and optimism,
dispel psychogenic fatigue—
and thus "make life worth living

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the anti-depressant of choice

CORRESPONDENCE

Age Limits for Lay Boards of Hospitals

To the Editor

The editorial, "Tenure of Hospital Staff Appointments," in the issue of August 1, 1949, invites thought and comment Physicians and surgeons who serve or have served on the "visiting staff" or "attending staff" of a voluntary (nonprofit) hospital are fully aware of the status of their appointment, the public, in large measure, is not

The governing body of directors or trustees, laymen, writes and enacts its own constitution and bylaws Any constitution and bylaws which the medical board may be authorized to enact must conform thereto and be approved by the lay board Power of appointment to the professional staff rests ultimately with the lay board Such appointment is, moreover, for one or two years only and subject to renewal or discontinuance, at the pleasure of the lay board Whereas many such boards have set up an age limit (varying from sixty to sixty-five) for the professional staff, I am not aware of any such limitation upon members of the lay board

Usually a committee made up of lay board and of medical board members deals with medical matters, including staff appointments In some instances the medical members are chosen freely by the medical board, but in others they are practically designated by the lay board in its constitution and bylaws While in discussions of this committee upon medical staff matters such as appointments, the medical members may have a voice and a vote, the committee's decisions and recommendations are subject to review by the lay board and in the last analysis the decision on all professional matters including appointments, renewal of appointments, or otherwise rests solely with the lay board The paragraph on page 1777, "The usual remedy for persons dissatisfied will furnish the remedy," is, therefore, deserving of special comment

Time was, in the City of Greater New York, when many voluntary hospitals and other charitable institutions were supported by a membership body or association The members had the right annually to nominate and elect their directors and officers who were given responsibility for the management of their institution Under such circumstances it was possible for public opinion to express approval or disapproval of the management in open session and to change the managing group if so desired In some hospitals, at least, that state of affairs no longer obtains. The board of directors or trustees had its charter changed by the Legislature so that it became a self-perpetuating body no longer responsible to its supporters Fund-raising activities were, moreover, delegated to central agencies such as United Hospital Fund, Greater New York Fund, Federation of Jewish Philanthropies, etc

Now the public which contributes and thus supports a great many institutions has no control whatever over an individual institution or over its particular board of directors The public surely could not and would not withhold such general funds as a protest against the directors of one individual institution In fact, the boards of these central agencies for fund-raising are likewise either self-perpetuating bodies or appointed representatives from the constituent institutional boards

It may well be that the charter of Olean General Hospital provides a method for electing a new board of directors, but I doubt that supporters of the institution would withhold funds as a means of effecting a change of management The public cannot and should not be advised to endanger the community's welfare by closing its general hospital, or even threatening its closure, in order to protest against an isolated act of its board of directors

Mr Justice Davis' suggestion as to the remedy, if quoted correctly, hardly seems practicable

In conclusion, may I suggest that the relationship of the public, which supports a hospital, to the governing board of that hospital is a subject for urgent consideration and clarification

Brooklyn, New York
August 15, 1949

Extrapleural Dissection Discussed

To the Editor

It was gratifying to read of the increasing attention being given to the value of extrapleural resection both in chronic nonspecific empyema and in empyema associated with pulmonary tuberculosis. The recent case reports of Drs M S Lloyd and E Naclerio in your JOURNAL on June 1, 1949, undoubtedly represent but one of numerous experiences with this advance in technic now in progress [1]

Extrapleural dissection in thoracic surgery, of course, has long been known However, this maneuver has been utilized by thoracic surgeons as a matter of operative convenience, especially where the visceral and parietal pleurae had become adherent and could not be separated

The deliberate and planned use of extrapleural dissection, on the contrary, is of recent date and has been most extensively used since its introduction, at Sea View Hospital in New York. Drs Lloyd and Naclerio are inadvertently in error in mislabeling their reported cases with "priority," since a number of such operations have been done before and have indeed been the subject of a number of reports published some time ago [2-4] The use of the planned procedure of pneumonectomy and pleurectomy for nontuberculous pulmonary *disease had been* performed at least as early as 1942 by Dr Irving A. Sarot of New York This surgeon then performed the first pneumonectomy and pleurectomy for uncomplicated pulmonary tuberculosis at Sea View Hospital on February 21, 1947 The first pneumonectomy and total pleurectomy for uncontrolled

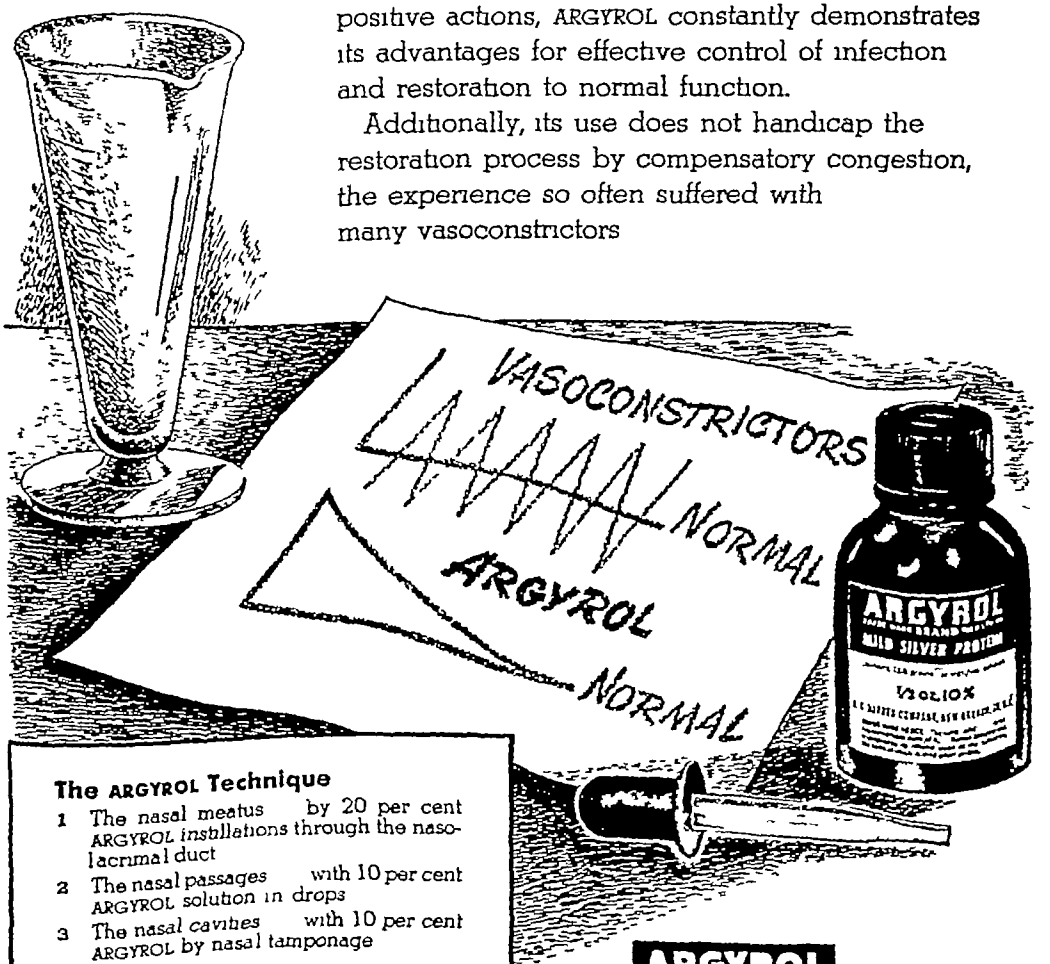
[Continued on page 2596]

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[Continued from page 2594]

pulmonary tuberculosis and empyema were performed by Dr Sarot on April 1, 1947, and he followed this with pneumonectomy and total pleurectomy for uncontrolled pulmonary tuberculosis, empyema, bronchopleural fistula, and empyema sinus on May 10, 1947 These procedures, performed on the surgical service of Sea View Hospital, have, as noted above, already been reported Further extrapleural procedures have since been performed at this institution by Drs Sarot, Bailey, L R. Davidson, L Hochberg, I Fink, and others, and the indications for extrapleural resection have been extended Thus, the reports of Drs Lloyd and Naclerio of excision of a localized encapsulated nonspecific empyema on April 14, 1947, and of pneumonectomy and pleurectomy for pulmonary tuberculosis on August 26, 1947, indicate that these operations had been well antedated. Indeed, Dr E. H Robitzek, who discussed the procedure with Dr Lloyd in consultation, had become aware of pneumonectomy and pleurectomy and its planned value at Sea View Hospital where, as attending physician, he had seen the results of its use

Pneumonectomy with total pleurectomy has been successfully utilized, as noted above, for several years, but its importance and the rationale for its value has only recently been brought out [5]

We have pointed out what we believe to be an observation of the greatest importance Extrapleural pneumonectomy, by removing the pleura, removes a source of serious postoperative complications The parietal pleura has no function after the removal of the lung and should be removed with it even in cases in which it is not involved in the disease process It should be removed as completely as possible in every pneumonectomy for tuberculosis We have reviewed the first 100 consecutive pneumonectomies for tuberculosis performed at Sea View Hospital and have called attention to the fact that of 65 patients operated intrapleurally (i e , the pleura was allowed to remain), eight (12 3 per cent) died of empyema postoperatively Thirty-five patients had extrapleural pneumonectomy (i e , the parietal pleura was also removed during the operation), none died of empyema—indeed, this complication did not occur The highly sensitive pleura had not been left behind to become infected

The Sarot operation (extrapleural pneumonectomy and pleurectomy) for pulmonary tuberculosis, especially when complicated by empyema, constitutes an important advance in the surgery for this disease [6] We have proposed, for the reasons above, that all pneumonectomies for tuberculosis should be done extrapleurally

I G Tchertkoff, M D
Irving J Selikoff, M.D

New York City
July 20, 1949

References

1 Lloyd M S and Naclerio E New York State J Med 49 1293 (June) 1949
2 Sarot, I A. and Gilbert L Quart Bull Sea View Hosp 9 183 (July) 1947
3 Davidson L R. Sarot I A and Bailey C P *ibid* 9 203 (July) 1947
4 Sarot, I A. and Gilbert, L *ibid* 9 234 (July) 1947
5 Tchertkoff I G and Selikoff I J *ibid* 9 277 (Oct.) 1947
6 Robitzek E H *ibid* 9 183 (July) 1947

Reply by Dr Lloyd

To the Editor

I am grateful to you for the opportunity to reply to the above letter from Drs Tchertkoff and Selikoff In my reply, I use first person singular pronouns throughout, because, although the article referred to was submitted under the co-authorship of Dr E A Naclerio, I wish to assume full responsibility for what was said.

I am not a seeker of "priorities" and I would suggest that those who are examine the remarks of Dr Hyman I Goldstein which appear on page 437 of the *Journal of the American Medical Association* for February 12, 1949

To be accused of seeking "priority" in an article which carries the same references to prior authors as are quoted by Drs Tchertkoff and Selikoff is a little difficult to understand Perhaps the use of the word "first" leads to a misunderstanding But the context indicates that this word refers to specific features of the cases reported and not to the operation of combined pleuropulmonary resection Both in the body of and in the references appended to my article, I give full credit to the pioneer work of the physicians and surgeons of Sea View Hospital

However, my praise, apparently, was not high enough, and I am happy herewith to redouble it for the benefit of those who ask for more.

Milton S Lloyd M D

New York City
October 5, 1949

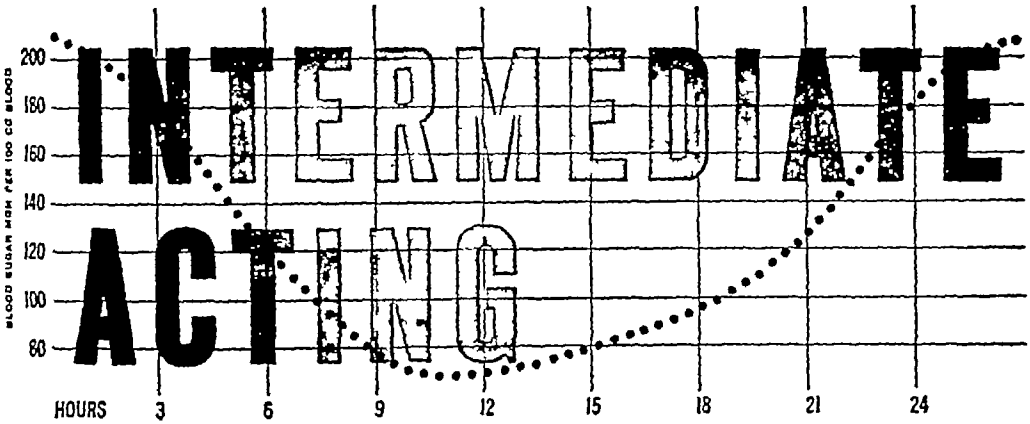
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2 ILL OF BUBONIC PLAGUE

Illness of two New Mexico residents has been found to be bubonic plague, the black death of the Middle Ages Only twenty-one cases of the disease had been listed in the United States during the last twenty-five years. The diagnosis was reported by Dr Vernon Link of the Western Contagious Disease Control Center in San Francisco

The victims are a ten-year-old boy treated at Taos and a thirty-seven-year-old man in the Veterans Hospital at Albuquerque They are residents of two widely separated villages in northern New Mexico

The Taos case was treated with streptomycin and sulfadiazine and the Albuquerque patient with penicillin and aureomycin —*New York Times, August 11, 1949*



GLOBIN INSULIN

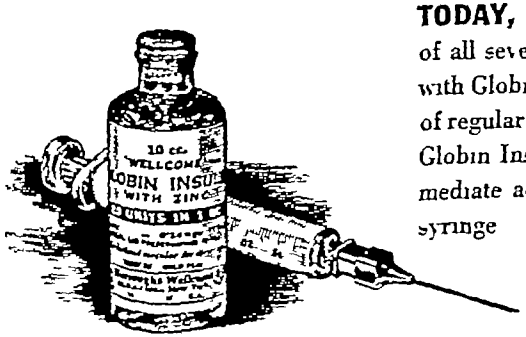
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was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin"[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B W & Co'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B W & Co'—or with a 2 1 mixture of regular insulin protamine zinc insulin *Ready to use* Globin Insulin 'B W & Co' provides the desired intermediate action without preliminary mixing in vial or syringe



In 10 cc vials U-40 and U-80

1 Rohr J H. and Colwell A.R.: Arch Int Med. 62.54 19-3.
2. Ib d Proc. Am. Diabetes Assn. 3.37 19-3.

B.W & CO *—a mark to remember*

BOOKS

Books for review should be sent to the Book Review Department at 1313 Bedford Avenue Brooklyn, N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

BOOKS REVIEWED

Control of Pain in Childbirth, Anesthesia, Analgesia, Amnesia. By Clifford B Lull, M D , and Robert A. Hingson, M D Third edition Octavo of 522 pages, illustrated Philadelphia, J B Lippincott Co , 1948 Cloth, $12

This is easily the standard textbook on caudal anesthesia written by those who know the most about it. All other forms of anesthesia are described, some briefly The authors generously give credit far and wide to others who appear to have interest or knowledge Particularly good on nervous pathways, obstetricians should read this book

CHARLES A GORDON

Cardiology By William Evans Octavo of 310 pages, illustrated New York, Paul B Hoeber, 1948 Cloth, $7 50

Dr Evans' new book on diseases of the heart is a welcome addition to the general practitioner's library It is authoritative, well written, and beautifully illustrated. In short, although therapy is only sketchily covered, it is probably the best one-volume cardiology intended for other than those who specialize in the field.

MILTON PLOTZ

Blood Clotting and Allied Problems Transactions of the First Conference, February 16–17, 1948, New York, N Y Edited by Joseph E Flynn Octavo of 179 pages, illustrated. New York, Josiah Macy, Jr , Foundation (1948) Paper, $3 25

Blood-clotting is still a very mysterious subject which is being studied intensively all over the world. This volume, which includes the work of some outstanding men, helps to clarify a few points, while leaving a good many unanswered. It is recommended for the student of hematology

ANDREW BABEY

A Doctor Talks to Teen-agers A Psychiatrist's Advice to Youth. By William S Sadler, M D Octavo of 379 pages St Louis, C V Mosby Co , 1948 Cloth, $4.00

Dr Sadler is a psychiatrist of experience and erudition who has been practicing his profession for some forty years and has had the opportunity of talking with several thousand young men and women about their experiences and troubles of one sort or another during their teen-age period. He therefore wrote a book addressing these young folks on various phases of this part of life so as to lighten the burden and to offer constructive guidance

It is a good and practical book, taken from a wealth of experience, written in a clear, simple, and yet instructive manner that should be of tremendous help to teachers, educators, and physicians who deal with teen-agers It is highly recommended to all

Experimental Immunochemistry By Elvin A. Kabat, Ph.D , and Manfred M Mayer, Ph D Octavo of 567 pages, illustrated Springfield, Ill. Charles C Thomas, 1948 Cloth, $8 75

Ever since Landsteiner's classic work *Specificity of Serological Reactions* appeared there has been need for a book of methods in the field of immunochemistry The excellent book by Kabat and Mayer satisfies that need

Although Landsteiner's work maintains its position as the classic on *qualitative* immunochemistry, the present work will no doubt become the classic on *quantitative* immunochemistry The authors were especially well qualified for the task because they had worked in collaboration with such giants in the field as Professor T Svedberg, Professor Arne Tiselius, and Dr Michael Heidelberger, the latter having written a preview at the beginning of the book.

Although the book contains ample theoretical material, it is essentially a book of methods for the immunochemist It summarizes adequately not only the contributions of the authors themselves but also of other workers in the field The vast subject is systematically presented in a series of 53 chapters divided into four sections This book is indispensable not only to the specialist but also to other workers in the general field of immunology, and is ideal for use in universities where courses in advanced immunology and biochemistry are given.

A. S WIENER

Plaster of Paris Technic. By Edwin O Geckeler, M D Second edition Octavo of 216 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $3 00

This volume fills a definite need It embraces the art of plaster-of-paris application in all its phases Many new illustrations have been added, the reader sees as well as reads about the different uses of plaster

MEYER E ROSS

Essays on Historical Medicine By Bernard J Ficarra, M D Octavo of 220 pages, illustrated New York, Froben Press, 1948 Cloth, $5 00

Dr Ficarra has gathered eight short essays in medical history in this brief volume The papers are slight and contain little original material, but they are entertaining and authoritative. Members of the medical profession in the metropolitan area will be especially interested in *"Walter Reed at Kings* County Hospital."

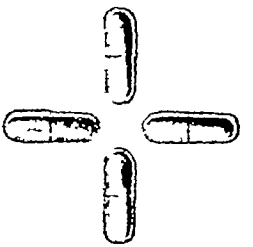
MILTON PLOTZ

The March of Medicine. The New York Academy of Medicine Lectures to the Laity, 1947 Octavo of 109 pages New York, Columbia University Press, 1948 Cloth, $2 00

This book presents an entirely different approach to medicine The role of the medical man in war is

to correct those ill-defined
secondary anemias which resist treatment
with iron alone, write:

Feosol Plus
1 cap. t.i.d.-p.c.

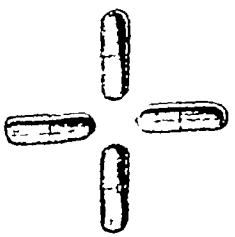


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broad-range formula
to combat those ill-defined
secondary anemias where
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[Continued from page 2598]

first discussed by Major General Norman T Kirk, Surgeon General of the U S A. He discusses the use of plasma, the use of tantalum in neurosurgery, the use of antibiotics and sulfa drugs

A rather provocative lecture on the mother's role in an infant's life is given by Arthur K. Solomon, Ph D

Dr Nolan D C Lewis lists fifteen important emotional disturbances which were found at the Walter Reed General Hospital, and states that six or more of these traits in the personal history should allow one to expect a breakdown or distress, and that any four of them predispose the individual to some degree of instability

Anti-infectious agents of natural origin are discussed by Rene F Dubos, Ph D

VINCENT ANNUNZIATA

Kurze Klinik der Ohren-, Nasen- und Halskrankheiten By Dr Erhard Lüscher Octavo of 513 pages, illustrated Basel, Switzerland, Benno Schwabe & Co (New York, Grune & Stratton), 1948 Cloth, 54 fr

This book, written in German, is meant for the student, the general practitioner, and the practicing otolaryngologist The author presents a wealth of knowledge gained from his experience as director of the otolaryngology university clinics both in Bern and Basel, as well as from his private practice

The technics used in various operations by the specialist are described, and the role of the general practitioner, regarding therapy and postoperative care, is delineated

In spite of its brevity, this treatise with its many illustrations presents an excellent general picture of this specialized field There is a comprehensive index at the end, thus facilitating the orientation of specific illnesses

This volume is profusely illustrated with photographs and anatomic specimens in color

SAMUEL ZWERLING

Factors Regulating Blood Pressure Transactions of the Second Conference, January 8–9, 1948, New York, N Y Edited by B W Zweifach and Ephraim Shorr, M D Octavo of 170 pages, illustrated New York, Josiah Macy, Jr, Foundation (1948) Paper, $2 75

This volume is a report of the second conference held by noted specialists, particularly research men, in the field of hypertension It covers a good deal of interesting and controversial material and is recommended for its theoretic implications

ANDREW BABEY

Drug Research and Development. Edited by Austin Smith, M D, and Arthur D Herrick Octavo of 596 pages New York, Revere Publishing Co, 1948 Cloth, $10

This interesting presentation of the various phases involved in the development and marketing of drugs is well written and throws much light and understanding on the industry It was contributed to by 20 authors and is interesting, light reading

IRVING GREENFIELD

Neuroanatomy By Fred A Mettler, M D Second edition Quarto of 536 pages, illustrated St Louis, C V Mosby Co, 1948 Cloth, $10

This second edition of Dr Mettler's fine textbook shows considerable revision, and the material is quite up-to-date. The bibliography at the end is both recent and well selected By far the greatest value of this book lies in the excellent series of drawings and diagrams which are clear and lucid and go far to help one grasp this difficult subject One nuisance, to this reviewer, is the constant attempt to include the synonyms and Latin names for each anatomic term as it appears in the text This is distracting, and the same purpose might be served better by an appended glossary of terms at the end of the book On the whole this is a useful introduction to the subject and can be recommended for the use of students, neurologists, and neurosurgeons

I S FREIMAN

Gynaecological and Obstetrical Anatomy By C F V Smout, M.D With Chapters on the Histology of the Female Reproductive Tract and Its Endocrine Control by F Jacoby, M D Second edition Octavo of 248 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $11

This reviewer had the pleasure of reviewing the first edition of this very excellent book, then under the title of *The Anatomy of the Female Pelvis*

Considerable new material has been added to this second edition, namely, chapters on "Ovarian Endocrine Function and its Control", "The Anatomy of the Uterine Tube", "The Anatomy of the Fetus in Relation to Childbirth."

Throughout, the authors lay emphasis not only on the anatomy, but also on the histology, development, physiology, and endocrinology of the pelvis and female generative organs

The reviewer highly recommends this book to all interested in obstetrics and gynecology

JACOB HALPERIN

Abdominal Operations By Rodney Maingot, F R C S (Eng) Second edition Octavo of 1,274 pages, illustrated New York, Appleton-Century-Crofts, 1948 Cloth, $16

This book on abdominal surgery is a remarkably good one The text is lucid, terse, and informative The illustrations are excellent The subject matter is up-to-date and presented in a practical fashion The chapters on stomach and duodenum, gallbladder and bile ducts, and intestines are particularly commendable, and portray with great skill the diseases involved as well as the surgical technics in modern use The other subjects are also well managed There are numerous references to the current literature

WILLIAM I SHEINFELD

Your Diet for Longer Life By James A Tobey, Dr P.H Duodecimo of 280 pages New York, Wilfred Funk, 1948 Cloth, $3 50

This is a well-organized and well-written book It describes all phases of longer living which are influenced by diet The dangers of drugs used in connection with losing weight are stressed The need for medical direction in relation to food from early

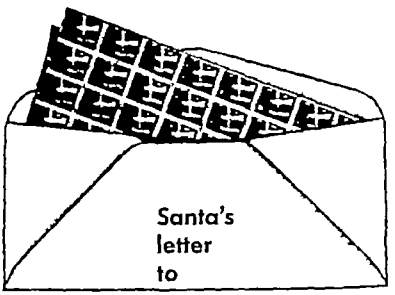
[Continued on page 2602]

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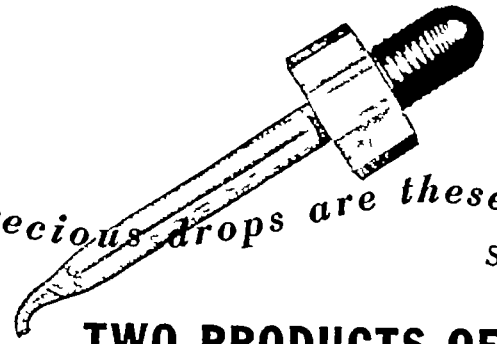
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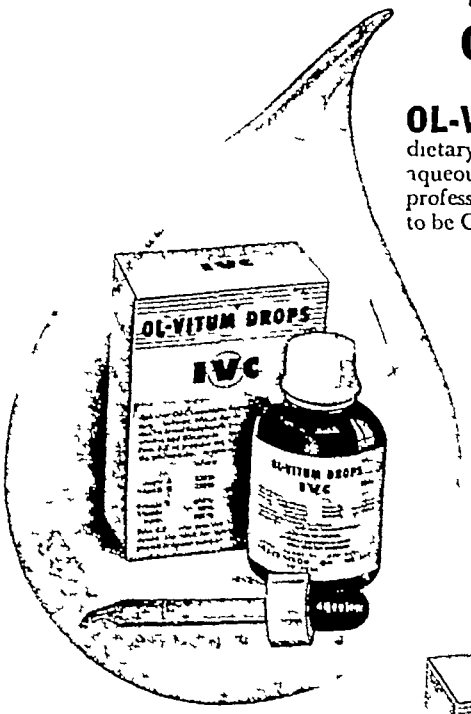
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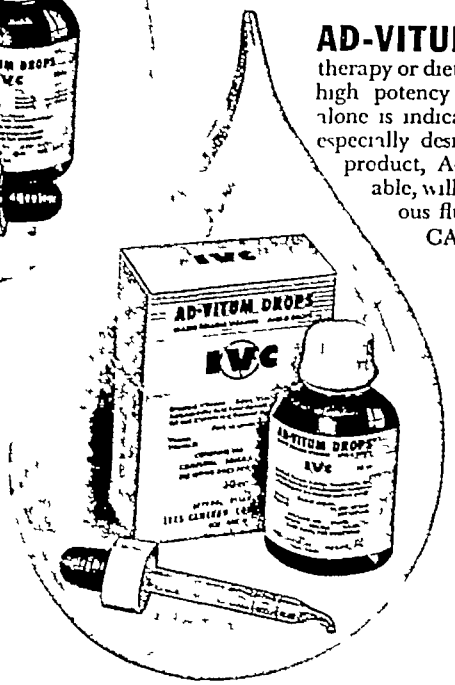


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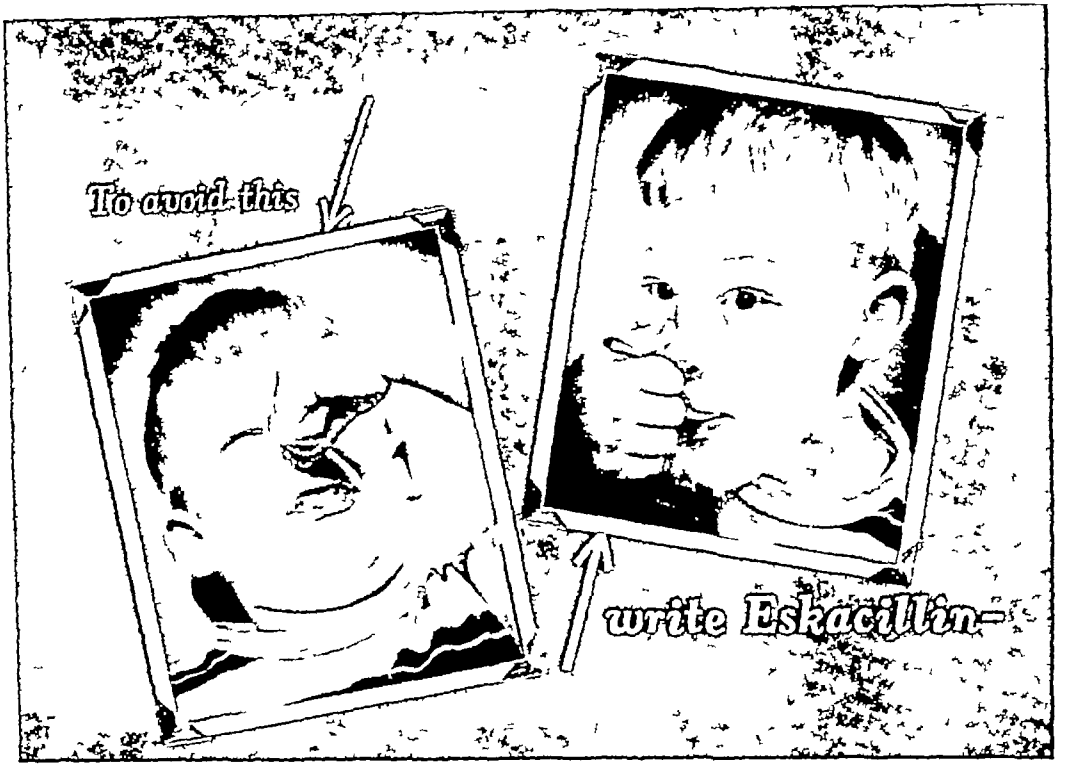
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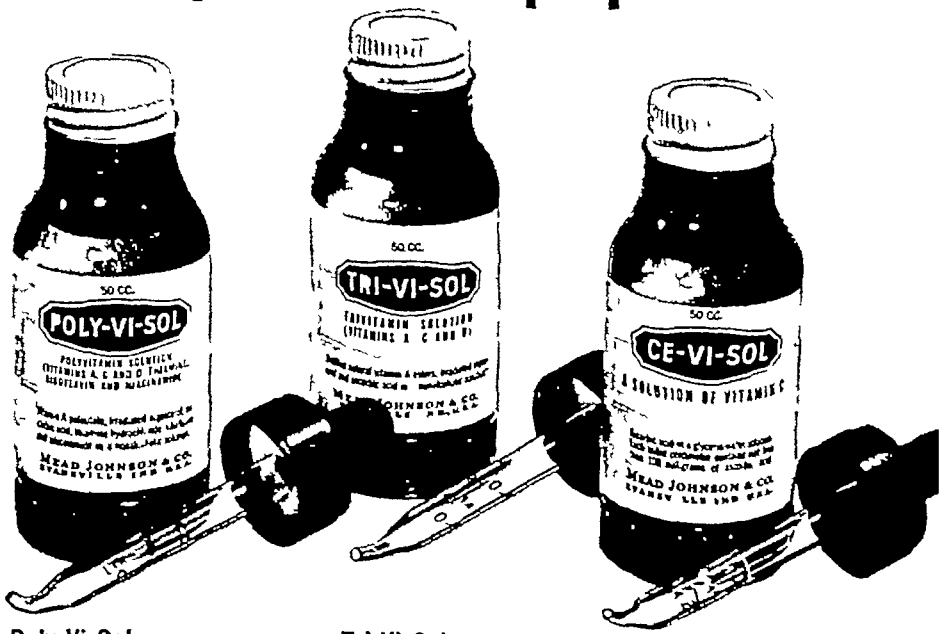
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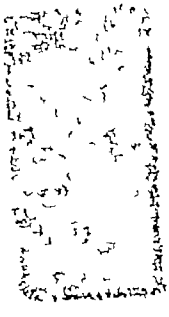
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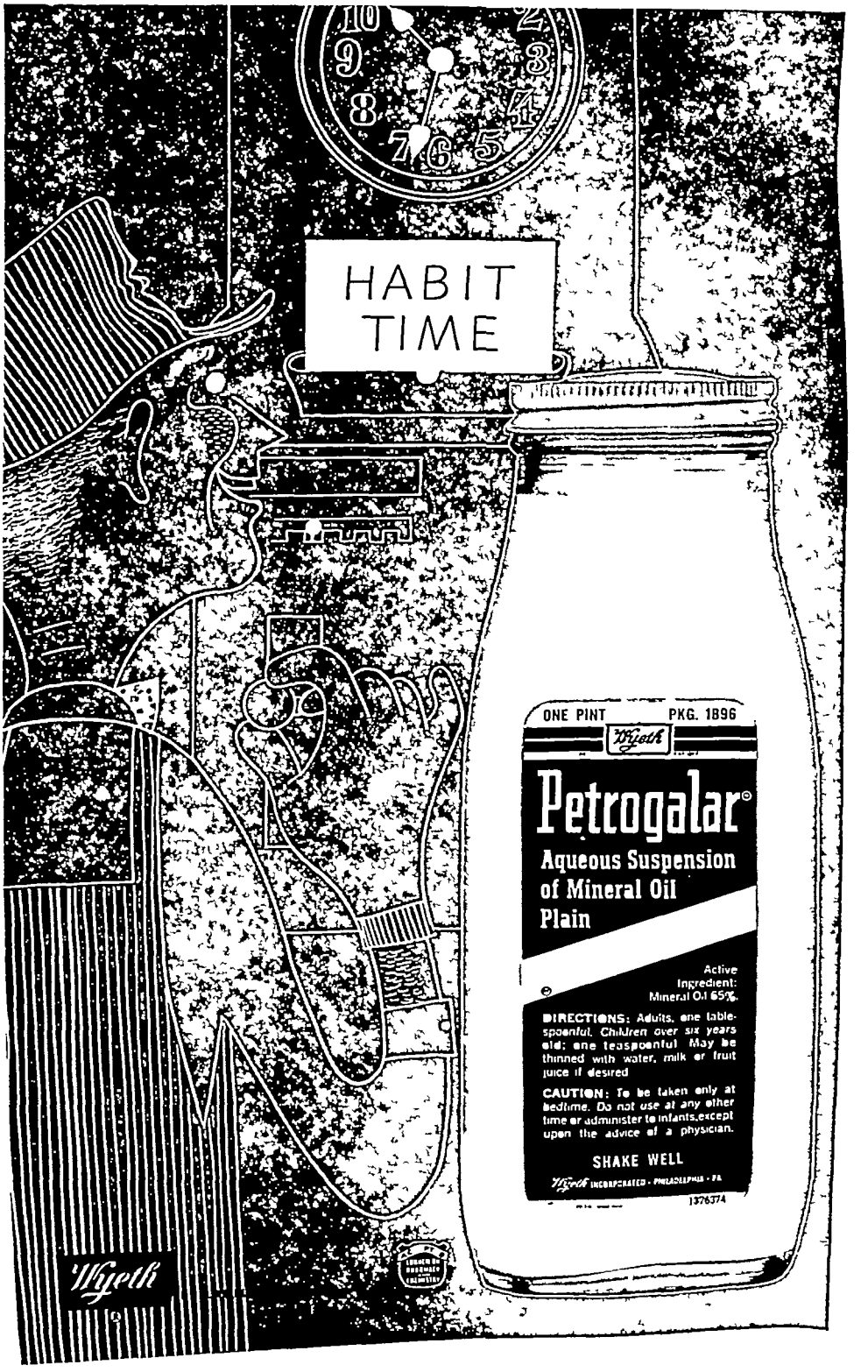
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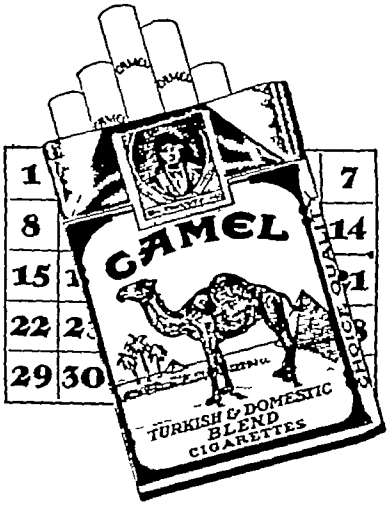

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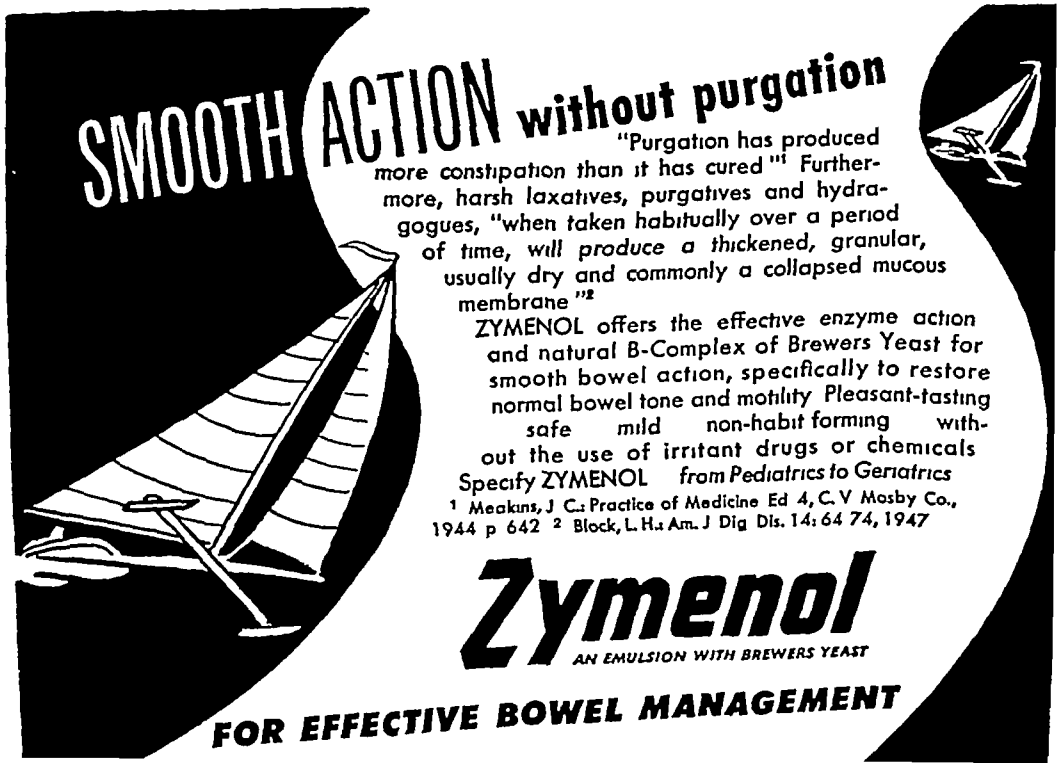
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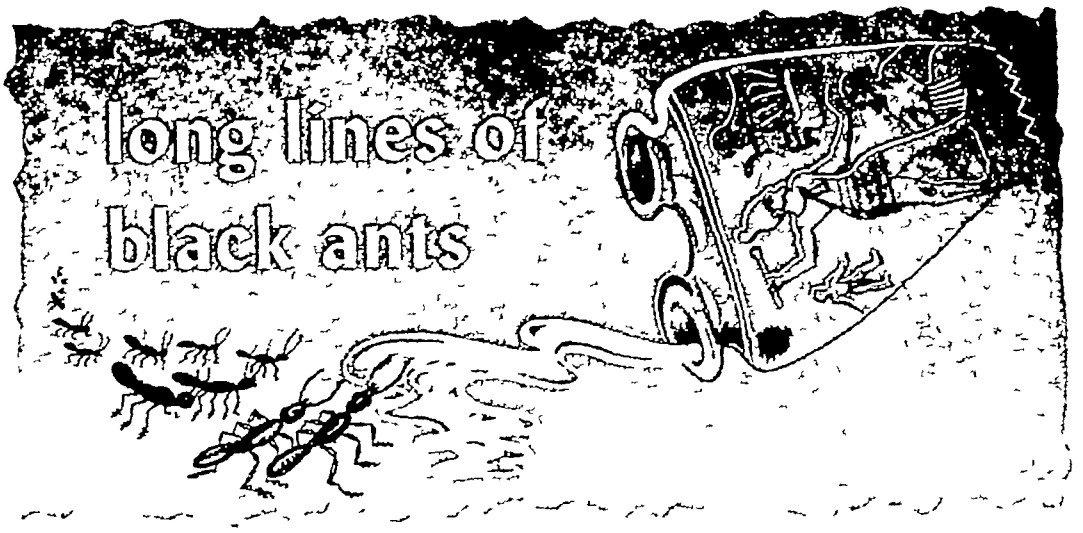
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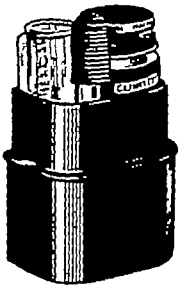
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1 Horton B T Ryan R. E & Reynolds J L. Proc Staff Meet. Mayo Clinic 23 105 Mar 3 1948
2. Friedman A P N Y State Jl. of Med (in press)
3 Ryan R E. Postgraduate Medicine (in press)
4 Hansel F K Annals of Allergy (in press)

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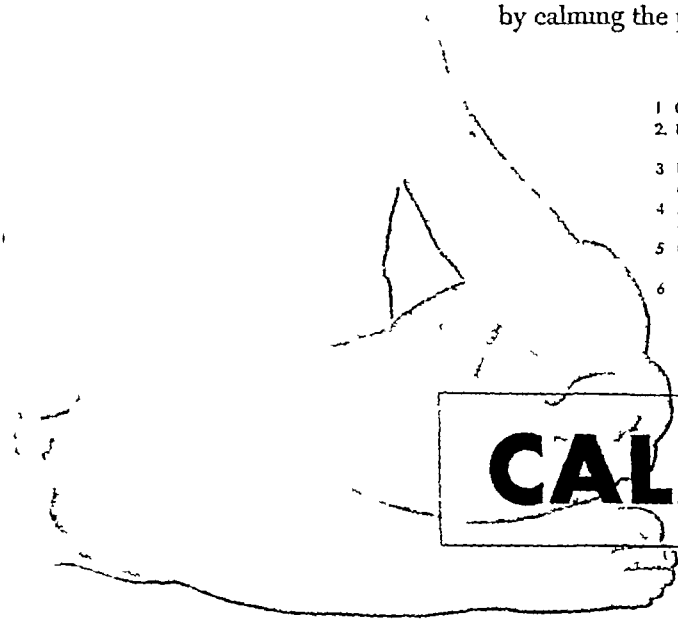
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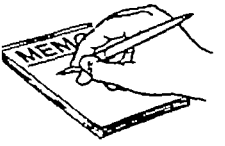
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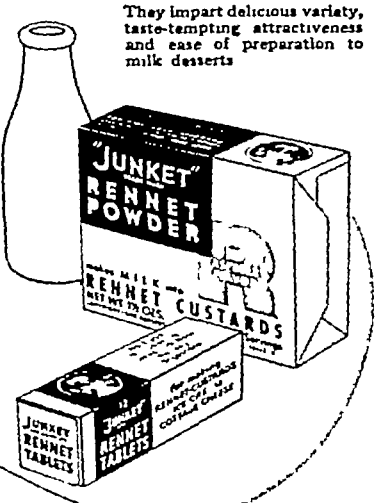
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1 American Committee for the Control of Rheumatism Pemberton R. Rev Gastroenterol 9:91 1942
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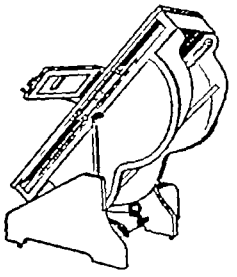
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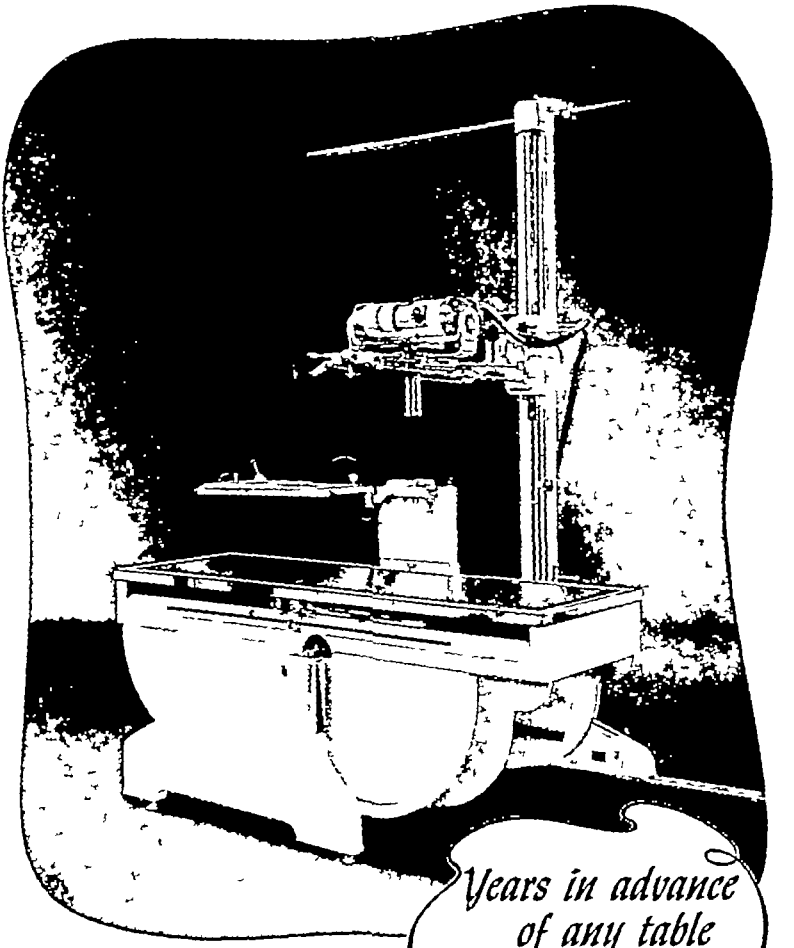
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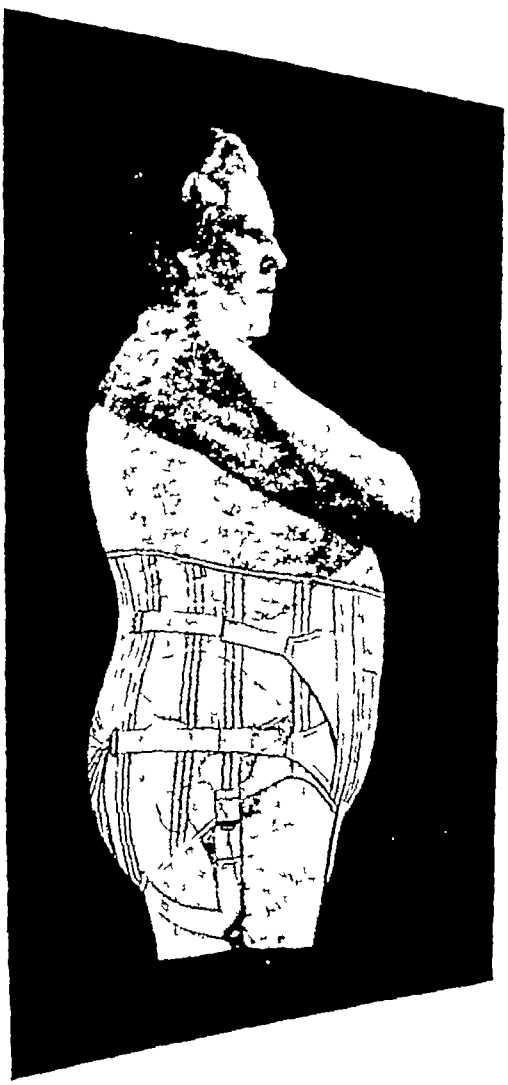
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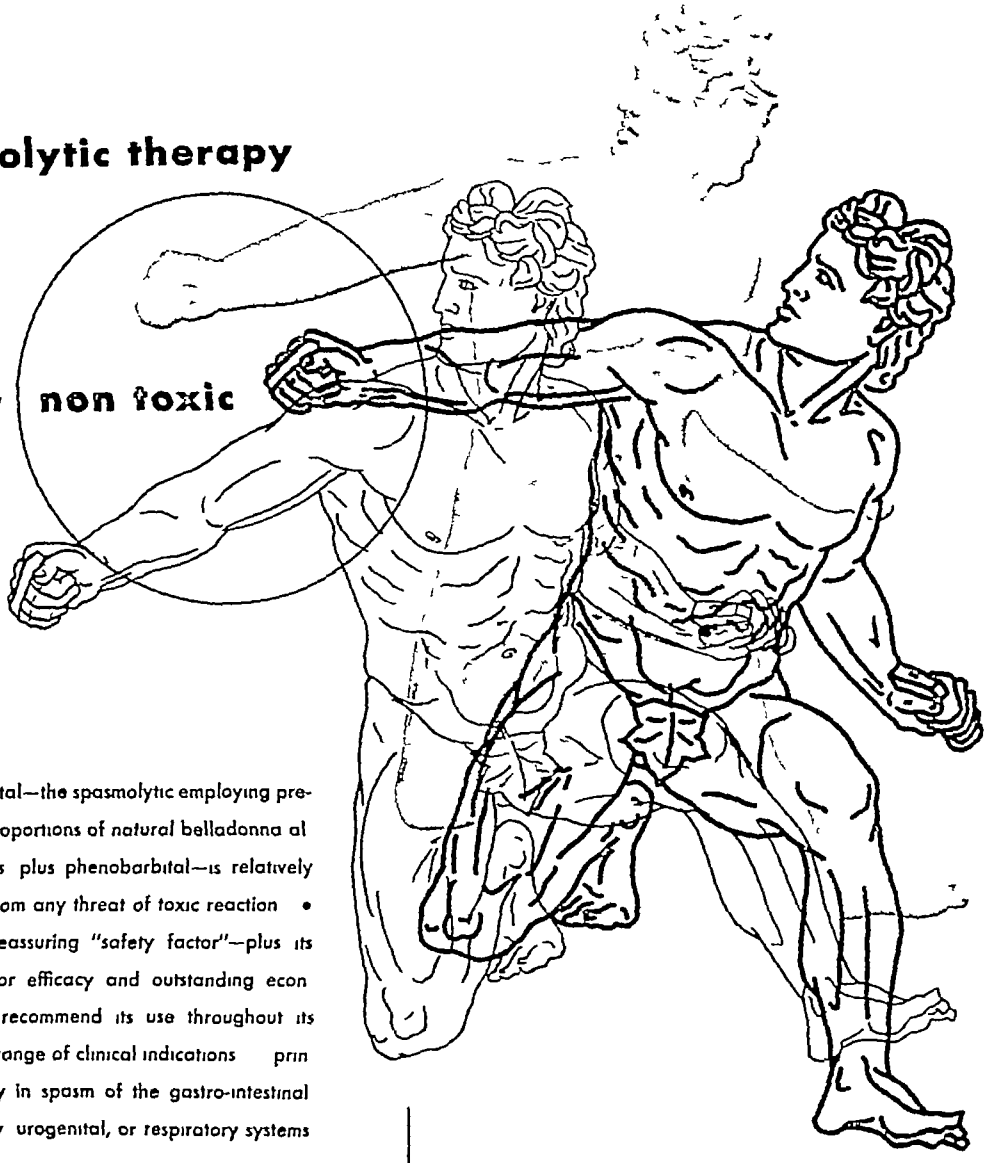
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for effective relief of visceral spasm

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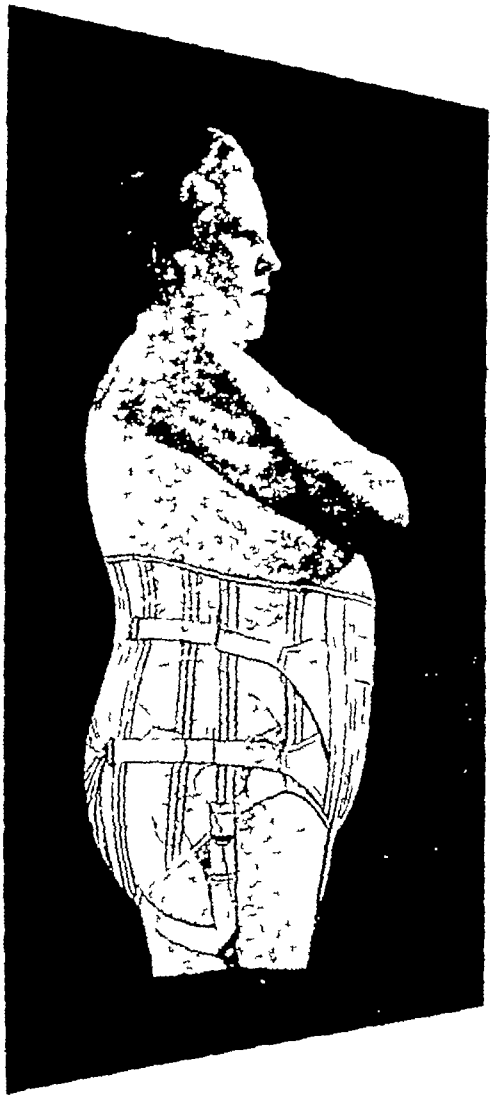
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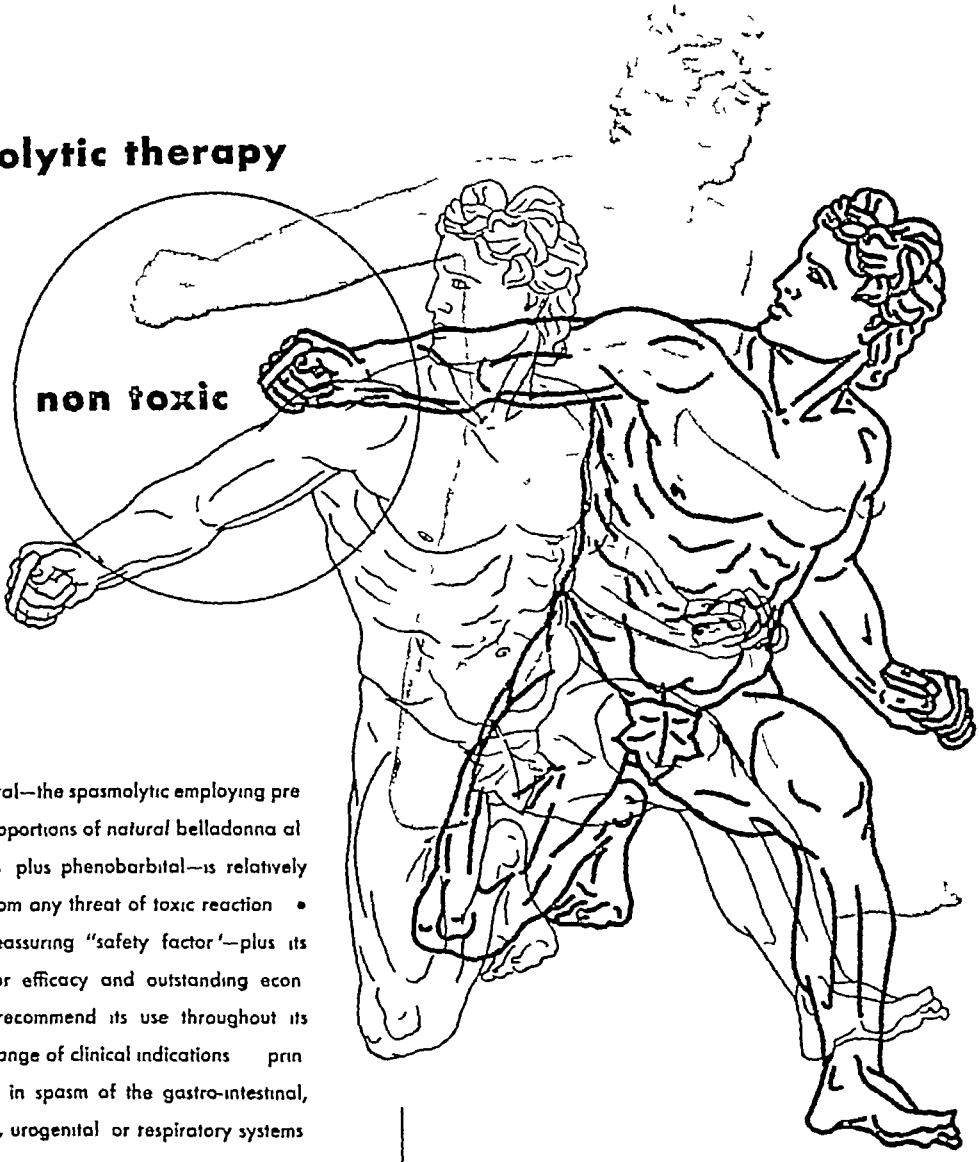
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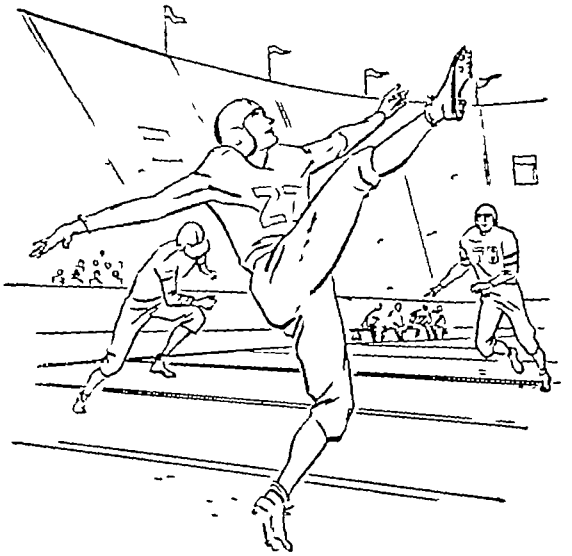
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Facts About Conception Control

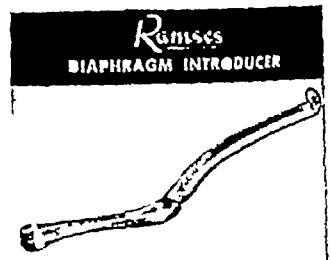
THE USE OF THE DIAPHRAGM INTRODUCER

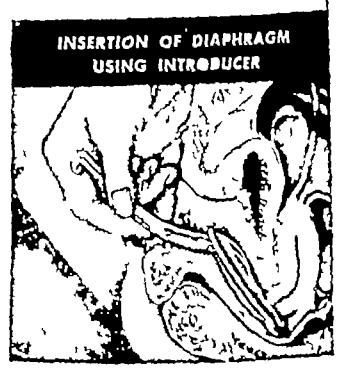
Use of a diaphragm introducer is favored by many patients who find manual manipulation objectionable or difficult It facilitates the insertion and correct placement of the diaphragm, as well as its removal

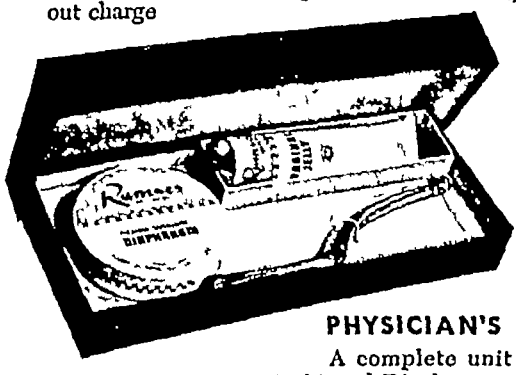
The "RAMSES"* Diaphragm Introducer provides the following features

- Simplicity and convenience in use
- Safety — design minimizes possibility of injury to the cervix or accidental insertion into the urethra
- Smooth surface lessens bacterial proliferation — makes for easy cleaning
- Ease of removal assured by bluntly hooked end

The 'RAMSES' Diaphragm Introducer is supplied in the Physician's Prescription Packet No 501, without charge







Ramses
TRADEMARK REG. U.S. PAT. OFF.

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* The word "RAMSES is a registered trademark of Julius Schmid, Inc.

† Active Ingredients Dodecaethylenoglycol Monolaurate 5% Boric Acid 1%, Alcohol 5%.

RAMSES' Vaginal Jelly is accepted by the Council on Pharmacy and Chemistry of the American Medical Association The RAMSES Diaphragm and Diaphragm Introducer are accepted by the Council on Physical Medicine of the American Medical Association.

gynecological division
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423 West 55th Street, New York 19, N Y
quality first since 1883

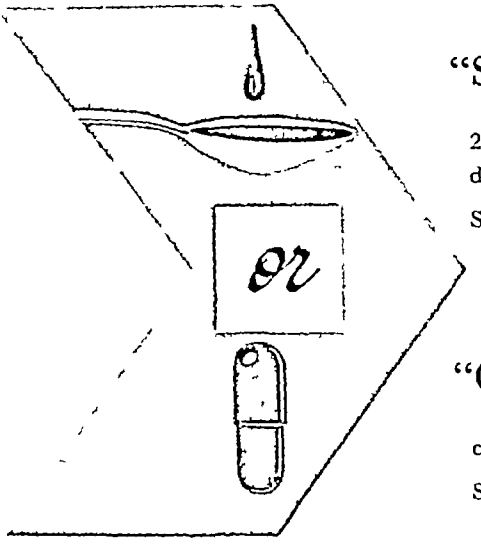
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Outstanding Palatability ..

Syrup Choline Dihydrogen Citrate

(*Flint*)

Continued patient acceptance of choline over prolonged periods can be assured by prescribing—



"Syrup Choline" (*Flint*)

25 per cent W/V—containing one gram of choline dihydrogen citrate in each 4 cc

Supplied in pints and gallons

"Capsules Choline" (*Flint*)

containing 0 5 gram of choline dihydrogen citrate.

Supplied in bottles of 100, 500 and 1000

"Choline (Flint)" is indicated in fatty infiltrations of the liver associated with alcoholism, infectious hepatitis, early cirrhosis, diabetes, malnutrition

For your copy of "The Present Status of Choline Therapy in Liver Dysfunction"—write

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Facts About Conception Control

THE USE OF THE DIAPHRAGM INTRODUCER

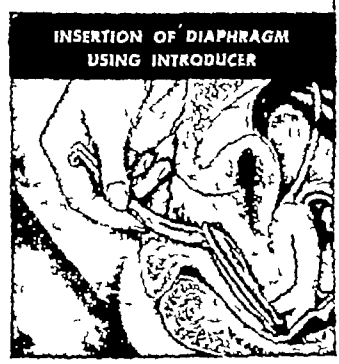
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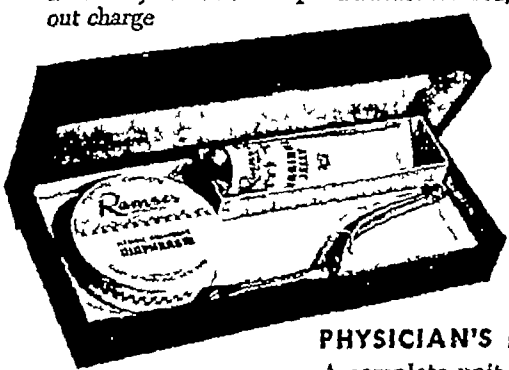
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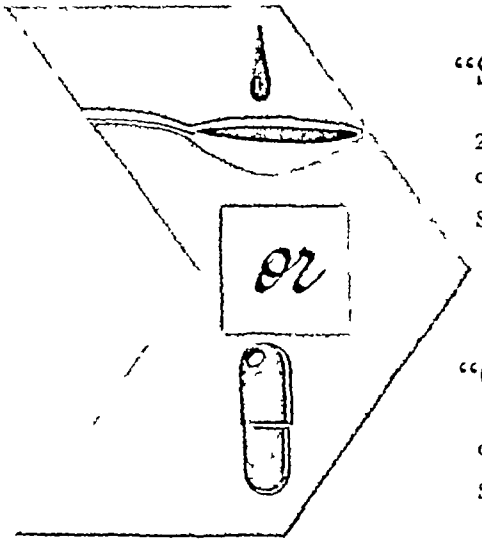
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Kondremul Plain—when regularity is to be obtained and maintained through softening of the feces by a colloidal emulsion of microscopically fine particles which are stable, indigestible, unabsorbable and which mix intimately with the fecal mass—non irritating non habit forming.
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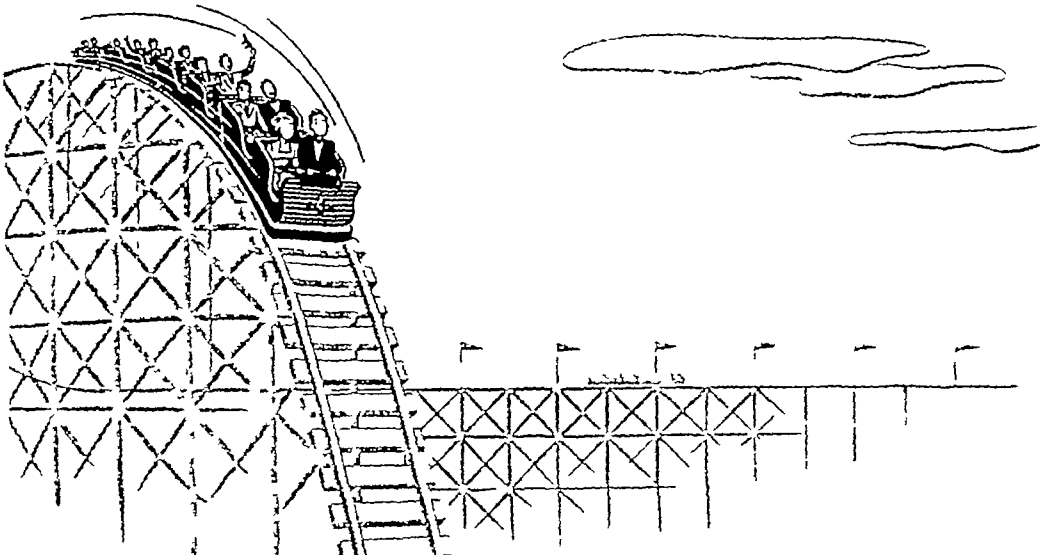
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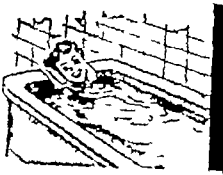
For gradual, prolonged, safe vasodilation

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When sedation is desired *Nitranitol with Phenobarbital* (1¼ gr Phenobarbital combined with ½ gr mannitol hexanitrate)

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The place is The Saratoga Spa



Have you a patient who needs

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Conditions for which the treatments were given included sinusitis, coryza, bronchitis, chronic rhinitis, bronchial asthma, laryngitis, allergic rhinitis, hay fever, and pharyngitis The treatments consisted of the inhalation of finely nebulized saline-alkaline, naturally carbonated mineral waters, and medicated oils

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Inhalations are taken without discomfort, which is an important factor in therapy

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As printed in the New York State Journal of Medicine 44:1214 (June 1) 1944.

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● Now, there is an effective ally against the disease known for its rasping difficulties.

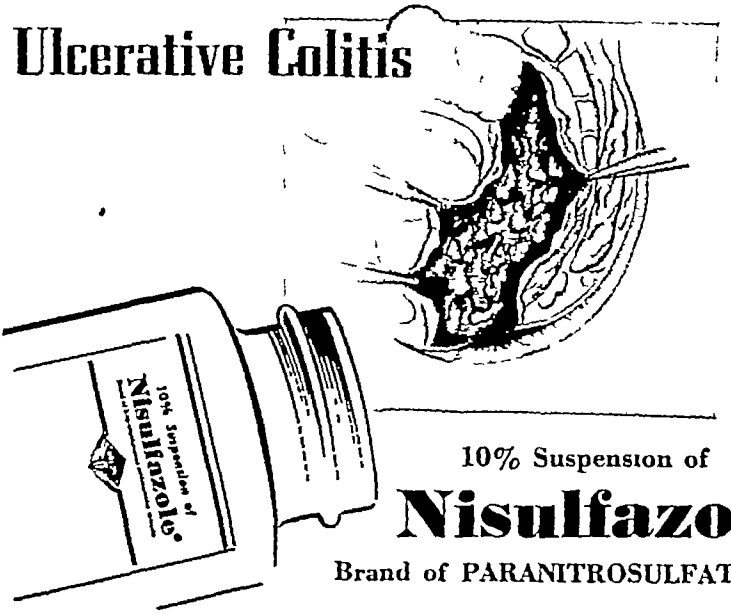
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Of 47 chronic ulcerative colitis patients in an early series treated with Nisulfazole Suspension, 37 could be followed for five years, 34 were then symptom free, three were markedly improved Some received the drug for 26 months with frequent blood counts and urinalyses No untoward effects were seen [1]

An Advance

in the Therapy of

Ulcerative Colitis



Full facts about Nisulfazole sent to physicians on request.

1 Major Ralph H. Am J Med 1 485 (Nov) 1946

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Brand of PARANITROSULFATHIAZOLE

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1 Nonallergenic, even on repeated administration
2 An aqueous solution which does not inhibit ciliary activity
3 Nonirritant, isotonic
4 May be administered to both adults and infants

CSC

When dispensed by the pharmacist each cc of Bacitracin-Nasal-C S C provides bacitracin 250 units, desoxyephedrine hydrochloride 2 5 mg (0 25%), sodium benzoate 1% The solution is stable at room temperature for 5 to 7 days, at refrigerator temperature for 3 to 4 weeks

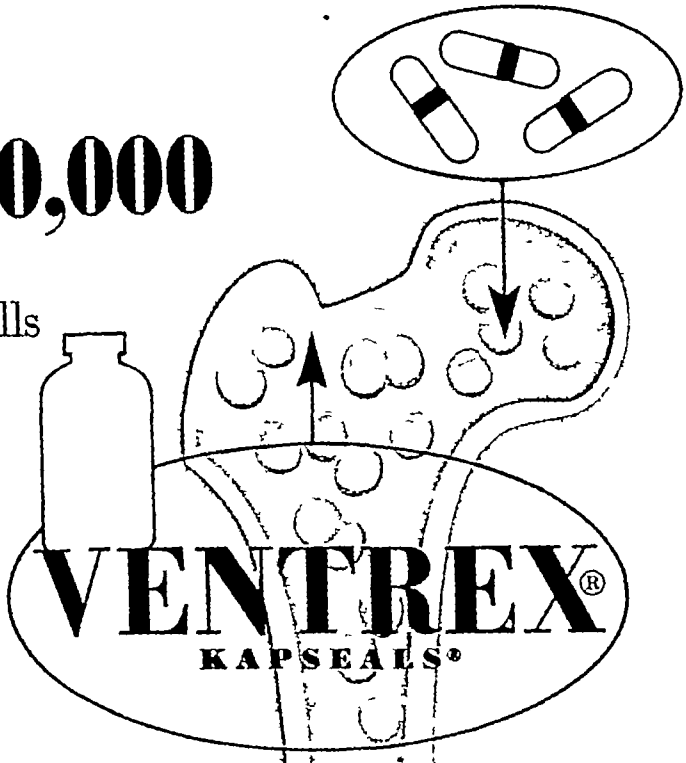
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your
patient
needs

10,000,000

new red
blood cells
every
second



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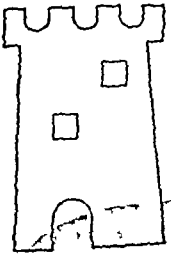
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all B-Complex Vitamins,

known and postulated, for use in

the prevention and treatment of

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rapid regeneration and maturation of red blood cells in

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		Iron Hydrogen reduced	10 mg
Thiamine Hydrochloride (B_1)	5 mg	Calcium Pantothenate	3 mg
Riboflavin (B_2)	10 mg	Choline Chloride	20 mg
Niacinamide	20 mg	Inositol	10 mg
Pyridoxine HCl (B_6)	1 mg	Folic Acid	0.3 mg.

With other B-Complex Factors naturally occurring in Yeast and Liver

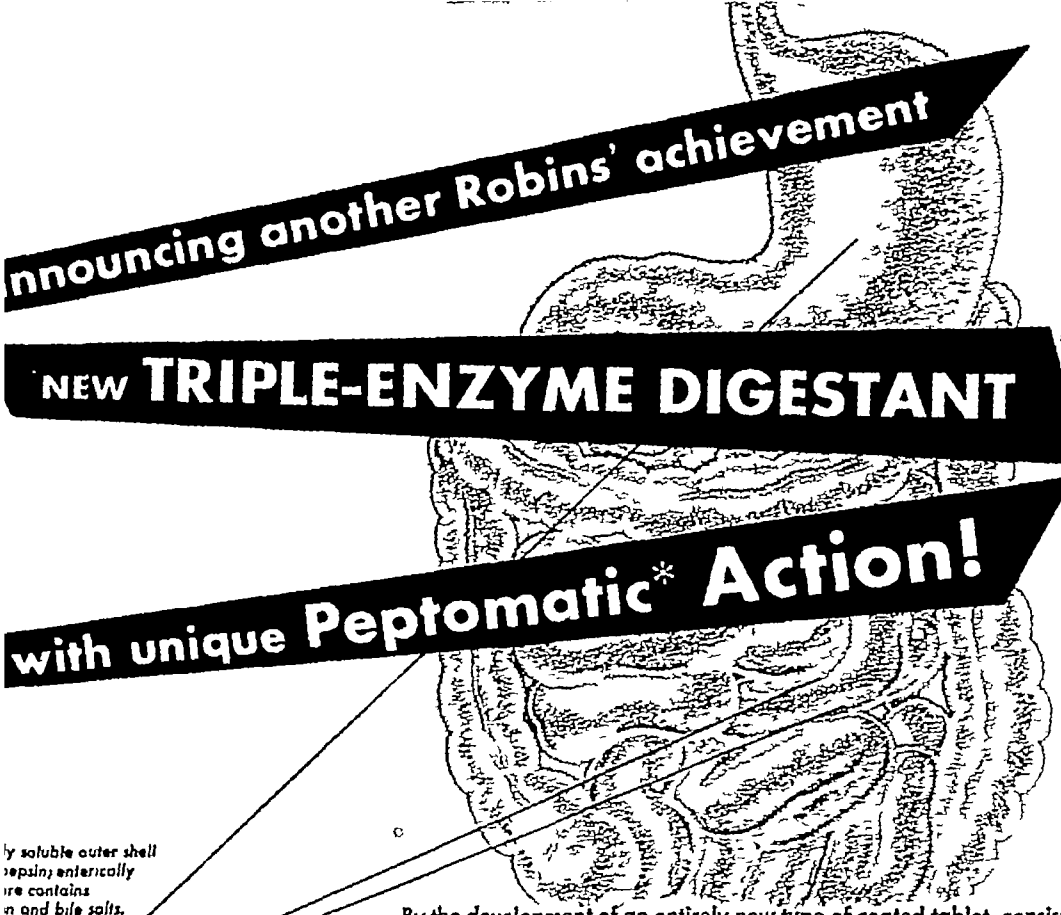
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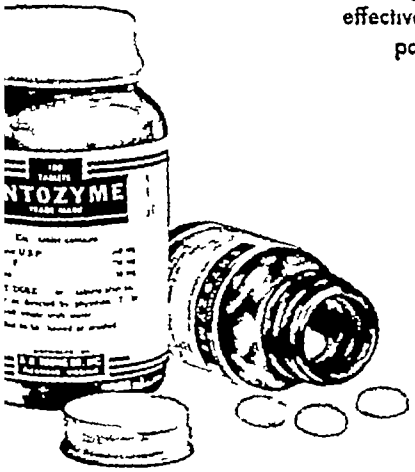
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REFERENCES: 1. McGavack, T. H. and Klotz, S. D.: Bull. Flower Fifth Ave. Hosp., 9:61, 1946. 2. Weissberg, J., McGavack, T. H. and Boyd, Lina J.: Am. J. Digest. Dis., 15:332, 1948.

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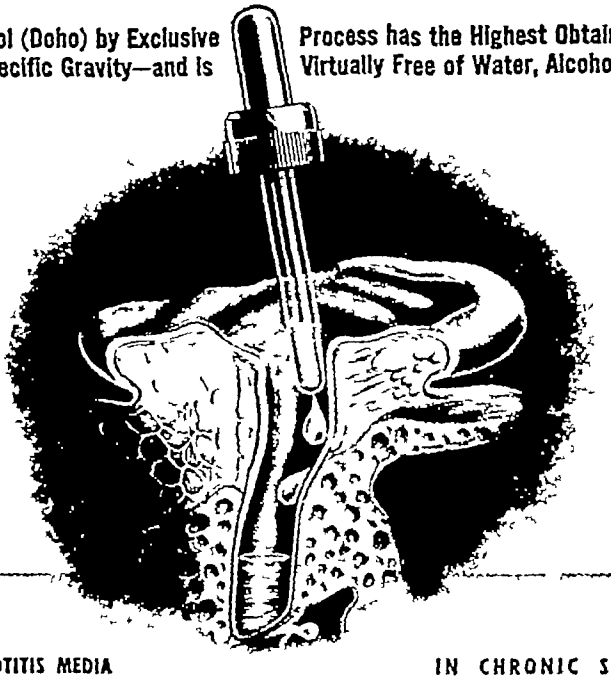
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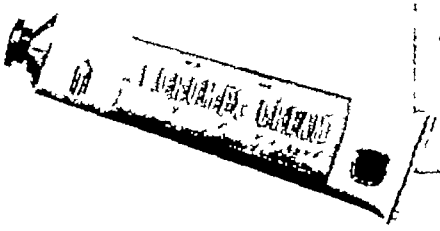


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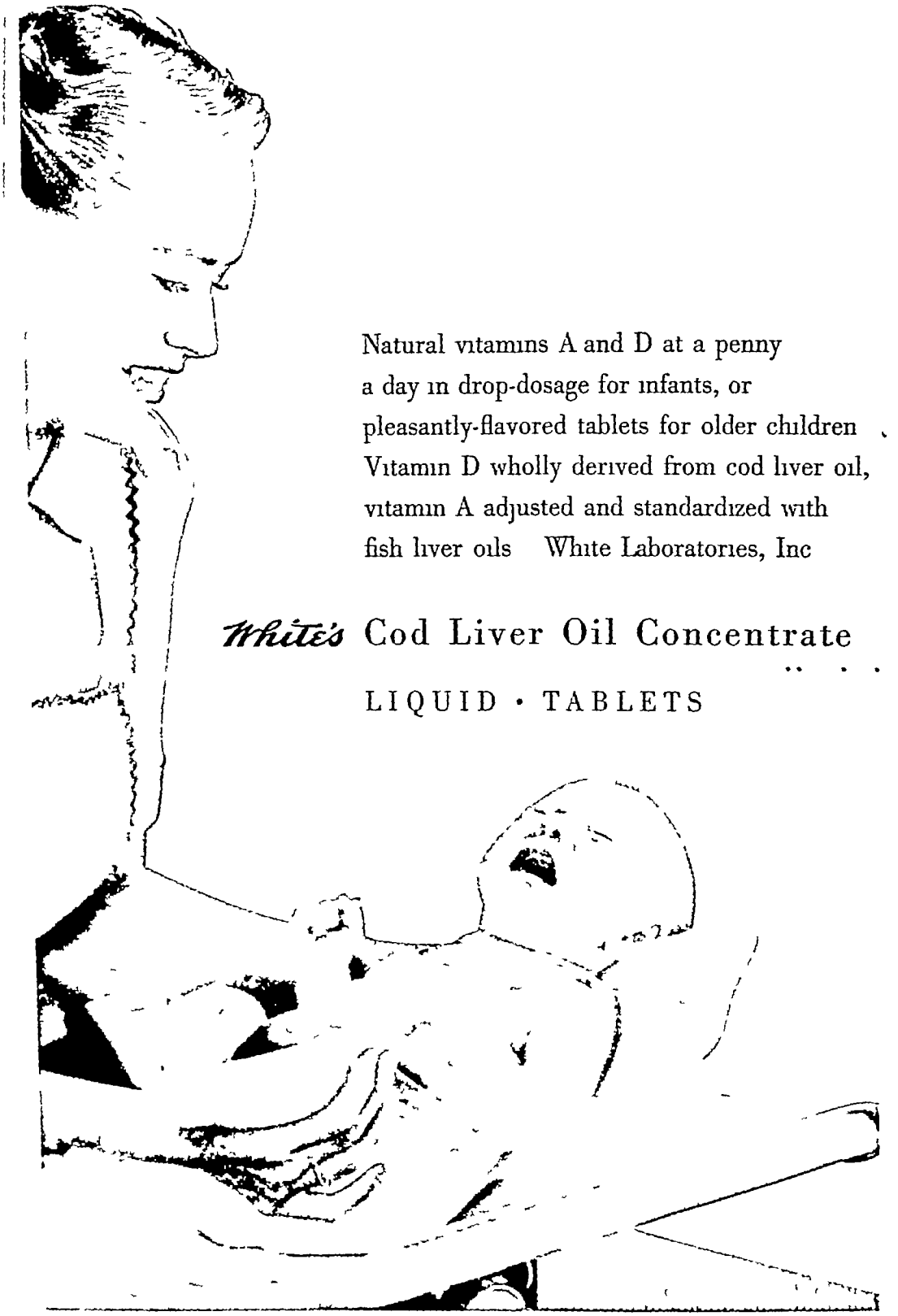
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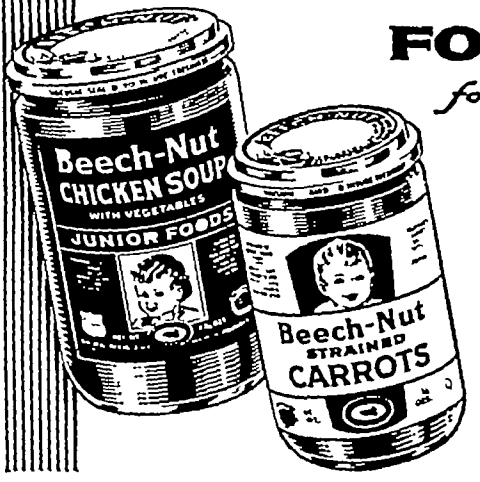
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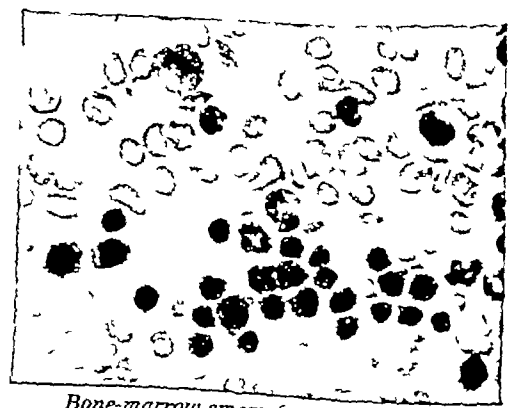


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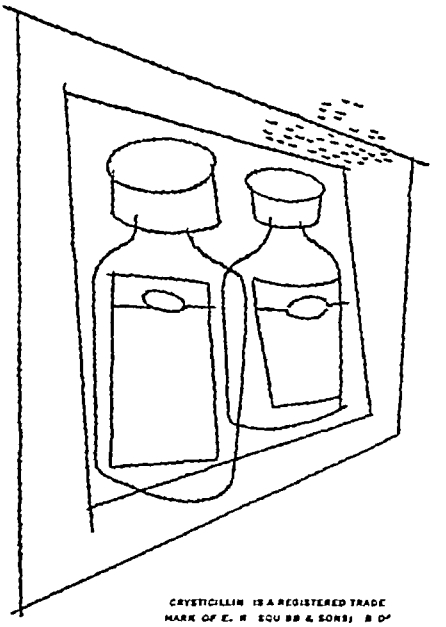
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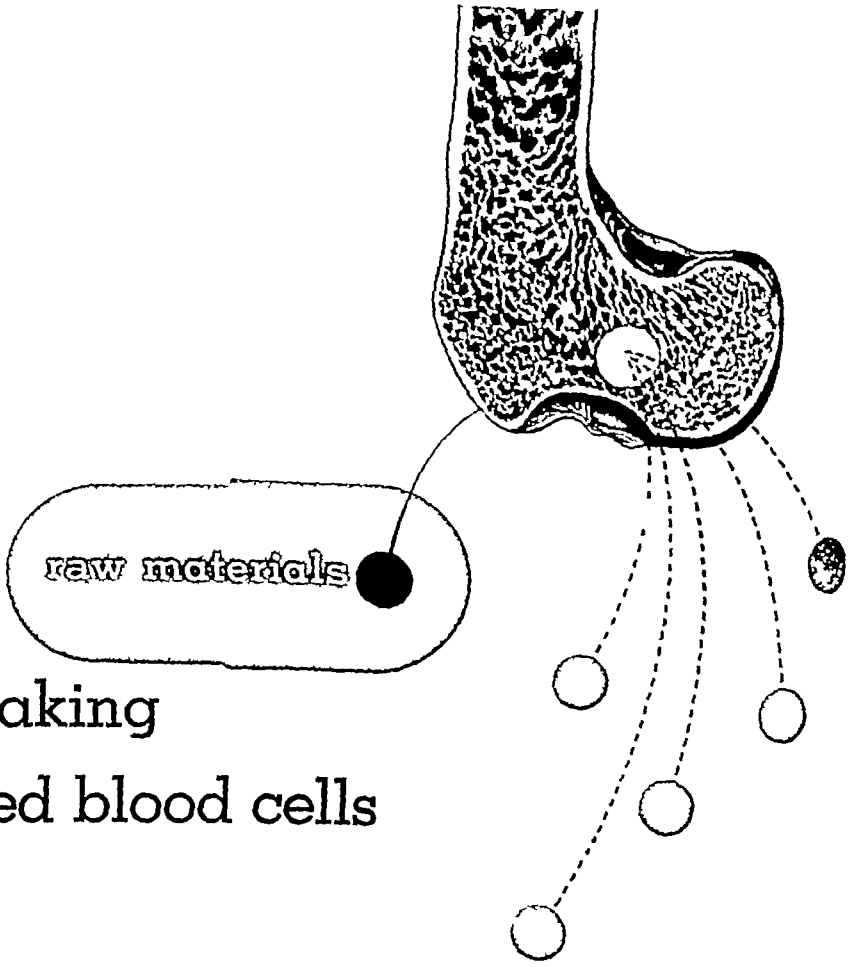
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VOLUME 49 NOVEMBER 15, 1949 NUMBER 22

Editorials

The Department of Justice Investigates the State Society

In the past thirty days, a statement from the Board of Trustees of the American Medical Association reveals that 16 state and county medical societies and other medical organizations, including the A.M.A. itself, have been made the subjects for investigations by the antitrust division of the Federal Department of Justice [1]

The medical groups suddenly brought under investigation, it was announced, include the following

American Medical Association, New York State Medical Society, Utah State Medical Association, Washington State Medical Society, Arkansas Medical Society and the Oklahoma State Medical Association, Michigan Medical Service, a Blue Shield Prepaid Medical Care Plan, and the Arkansas Blue Cross-Blue Shield Plan

Los Angeles County Medical Society, California, Beckham County Medical Society, Oklahoma, Wayne County Medical Society, Michigan, Harris County Medical Society, Texas, King County Medical Society, Washington, and the New York County, Nassau County, and Queens County Medical Societies in New York State

What is the purpose of the investigations? Under date of August 25, 1949, a letter from the Department of Justice addressed to the Secretary, American Medical Association, over the signature of Herbert A. Bergson, Assistant Attorney General, states "alleged violations of the Federal antitrust laws in the medical field" It is also "requested that you make available for examination by the bearer, an agent of the Federal Bureau of Investigation, such of your files as he may request"

On October 7, 1949, the *New York Times* carried a special dispatch by Louther S Horne from which we quote, in part

> In one of its strongest attacks on President Truman's compulsory health insurance proposal, the American Medical Association dis-

[1] October 6 1949

closed today that the A M.A and fifteen state and county medical societies, including four New York groups, were under investigation by the Department of Justice

In making this announcement, the A.M.A , which represents 143,514 physicians throughout the country, said

"This is an official statement of the board of trustees, protesting the use of a police arm of the Government—namely, the antitrust division of the Department of Justice—in the campaign to discredit American medicine and terrorize physicians into abandoning their opposition to compulsory health insurance"

The trustees' statement, issued at a press conference at A M A. headquarters, also disclosed that "in the early morning hours of February 10 the (trustees') board room was broken into and records of the board were thoroughly searched by persons unknown"

The membership of the Medical Society of the State of New York may not have seen, in the same issue of the *New York Times*, the following [2]

Investigation into alleged antitrust practices in the New York State Medical Society and medical societies of Queens, New York, and Nassau counties are being carried out here by the antitrust division of the Department of Justice, J Francis Hayden, chief of the division's New York office, made known yesterday

He said the investigation here was in connection with those elsewhere "on complaints that have been coming in from doctors and laymen throughout the country alleging restraints and attempts to monopolize prepaid medicine (*sic*) societies"

These actions have no bearing on the Administration's socialized medicine project, Mr Hayden said He said the investigations were being carried out with the possibility of inaugurating restraining suits similar to those against the Washington (D C) Medical Society in 1938 and the current suit against the Oregon State Society The Washington action also named as defendants the American Medical Society, the Washington Academy of Surgery, the Harris County Medical Society of Houston, Texas, and 21 officials of the Washington Society The A M.A and the Washington society were convicted of restraint practices and the conviction was affirmed by the United States Supreme Court

It will be noted that "investigation" here, in the State of New York, was inaugurated "on complaints that have been coming in from doctors and laymen throughout the country alleging restraints and attempts to monopolize prepaid medicine (*sic*) societies" So far, the complaints are cloaked with anonymity So far, alleged "restraints and attempts to monopolize prepaid medicine (*sic*) societies" are the reasons given for the investigations of the Medical Society of the State of New York

In order that our membership may be informed of the precedent events, we quote in part from an official statement of the Board of Trustees of the American Medical Association

> The chronology of events, since the American Medical Association decided to make a nationwide campaign against compulsory health insurance, and in behalf of voluntary health insurance, is, we believe, of real significance
>
> In November, 1948, the A M.A. at its mid winter meeting voted to collect funds from its members to finance a campaign of public education on this issue A public announcement was made to that effect
>
> Only a month later, in December, agents of the Department of Justice called on the Chicago Medical Society, seeking to check the Society's records in connection with an alleged antitrust investigation
>
> During the February session of the Board of Trustees of the A M.A in the early hours of February 10, the board room was broken into and records of the Board were thoroughly searched by persons unknown Brief cases of the trustees, left in the room, were also searched. Entrance was gained through a window The facts indicate this was a search for information, rather than an ordinary burglary *Certainly no friends of medicine would take this means of obtaining medical data* *
>
> A few weeks later, toward the end of February, administration leaders began threatening medical societies and medical men with "investigation" as part of their campaign to discredit and intimidate the medical profession Since then, there hasn't even been much attempt to disclaim the political nature of these investigations
>
> On February 28, 1949, for example, one of the national press associations carried a dispatch from Washington quoting government officials as stating that antitrust actions would be started against "several" medical societies soon after the compulsory health insurance drive was started in Congress

* Italics ours.—*Editor*

The implication was plain that the "investigations" would be part of the administration's campaign for its socialized medicine scheme

The threats made then are now realities An epidemic of "investigations" aimed at medical societies and voluntary medical care plans has broken out in widely separated cities and states all over the country

We want it clearly understood that we believe this attack on the medical profession stems from the antitrust division of the Justice Department and political string-pullers who have exerted influence on that agency We believe it to be an outrageous abuse of public power which far transcends in gravity the issue of compulsory health insurance, vital as that issue is

We recognize that politically motivated attacks have been made on many other groups by this division of the government, and we invite their cooperation with American medicine in an effort to alert the American people to the seriousness of this trend toward police state methods If the police arm of the government is used to intimidate doctors and others, and this abuse of power goes unchallenged, it may next be used to terrorize publishers or grocers, farmers or lawyers, Catholics or Jews, or any other minority in the nation

The foregoing are factual statements which we desire to place before the readers of the JOURNAL as a matter of information We believe that the membership of the State Society should be made aware of what is occurring In view of the fact that no suit has been filed, and this must await the results of the investigation now under way, we defer for the present any further comment

Veterans Hospitals

The recent report of the Committee on Public Health Relations of the New York Academy of Medicine on the hospitalization of veterans, addressed to the general public, the Eighty-first Congress, and the Veterans Administration, is a common sense plea that Federal responsibility for medical and hospital care be limited exclusively to these with service-connected disabilities, excepting only the tuberculous and the mentally ill [1] Says the *New York Times* [2]

> The report of the Academy's committee confirms conclusions reached long ago One year after the enactment of the 1924 enabling law, five out of six veterans in government hospitals had service-connected disabilities, in January, 1949, out of three veterans in government hospitals only one had a disability connected with war service The change in policy brought with it what the Academy's committee terms "the development of a hospital empire with 100,000 beds," to which additions are authorized that will cost three quarters of a billion dollars In January of this year 110,553 veterans were hospitalized at government expense—73,821 of these for conditions that bore no relation to their military service If government hospitals admitted only veterans who were victims of the war, facilities for only 36,732 would be needed

The recommendations of the Academy's committee are in substantial agreement with those of the Voorhees report of the Federal medical services of the Hoover Commission A certain number of veterans who are unable to pay for medical care would be accepted for teaching purposes, also regardless of the origin of their disabilities The 46,000 and more beds now available in government hospitals should be used for veterans before more hospitals are built Federal medical services should be integrated in the interest of economy Lastly, veterans medical services should be coordinated with those of voluntary hospitals and the procedures of voluntary hospitals adopted to reduce what comes close to malingering At a time when government expenditures here and abroad are mounting alarmingly, the reports of the Voorhees and Academy committees should not be ignored by Congress and the veterans organizations

In view of the information presented, the committee declares that the present facilities are adequate for all reasonable needs

[1] Bull. New York Acad. of Med. 25 557 (Sept.) 1949
[2] September 24 1949

of the veterans with service-connected disabilities and urges Congress not to delay the setting of a limit of 120,000 beds

The present report reiterates a recommendation of seventeen years ago, when the matter was under consideration by the Committee on Public Health Relations At that time the Committee recommended "That the hospitalization of veterans for non-service-connected disabilities be discontinued, not alone because it is wasteful, but also because it is reprehensible class legislation and totally unfair to the rest of the country"

We are wholly in agreement with the Academy's recommendations, if a little skeptical of their acceptance by Congress and the veterans organizations It is difficult to reverse a well-entrenched policy of free spending of public funds.

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We are privileged to assist in this study by reprinting in our correspondence column in this issue a letter detailing the exact information desired (see page 2720) The letter appeared originally in the *J A M A*, issue of July 8, 1949, but may not have received the attention it undoubtedly deserves from the physicians of the Empire State We feel that any doctor possessing such records of accidents would be glad and more than willing to make them available for the purposes outlined on page 2720 of this issue

With the object of securing as much information on this subject as possible we solicit on behalf of the University of Rochester the careful reading of the four categories of case histories about which reliable information is wanted The assistance of every reader of this JOURNAL can help materially to reduce the accidents death and disability toll, the useless and probably avoidable wastage of human life now approaching staggering figures

The Legion Votes The American Legion and the Legion Auxiliary, at their recent national conventions in Philadelphia, reaffirmed the stand taken annually since 1945 by adopting a strong resolution against compulsory health insurance

The Legion, with a national membership of 3,500,000, and the Legion Auxiliary, composed of more than 1,000,000 women, passed the following resolution

> WHEREAS, the American Legion has always had as one of its objectives to foster and perpetuate a 100 per cent Americanism and to safeguard our liberties and freedoms as opposed to any form of compulsion and regimentation, and
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> WHEREAS, there is now before the Congress of the United States the question of compulsory health insurance which in itself is a threat to our freedom, now therefore,
>
> *Be it resolved* by the American Legion in National Convention assembled August 29 to September 1, 1949, in Philadelphia, Pennsylvania, that this organization go on record as opposing any form of compulsory health insurance

The above item should be of great interest to our readers

DEVELOPMENTS IN PUBLIC HEALTH

From the New York State Department of Health

William A Brumfield, Jr , M D , Editor

The 1949 Outbreak of Poliomyelitis in New York City

Physicians in the State of New York will undoubtedly be interested in a consideration of certain aspects of the recent poliomyelitis flare-up While it is not possible at the present time to offer a complete account of developments in New York City, we feel that it would be of some value to describe the steps that were taken to deal with the outbreak

Each year as the summer approaches, two questions are raised in the minds of public health officials, physicians, and parents Will a poliomyelitis outbreak occur this year? If so, what can be done about it? Even in epidemic years the number of reported cases in the first six months may give no indication of what is to follow Therefore, any prognostication about the incidence of poliomyelitis before sometime in July is uncertain

Twelve cases of poliomyelitis were reported in New York City for the month of June, 1949 Although this number was slightly higher than average, there appeared to be no cause for alarm Nevertheless, Health Department officials were on the alert During the first week of July, twelve cases of poliomyelitis were reported in New York City The incidence was higher than usual and the possibility of an epidemic outbreak appeared greater By the end of the second week of July a sharp rise had occurred and 61 new patients were reported

The Department of Health immediately began to prepare for the possibility of an epidemic Health Commissioner Mustard appointed a medical advisory committee, which he called together on July 15 The situation was presented to them together with an outline of plans should the cases continue to increase

At the same time a set of questions and answers about poliomyelitis was approved, with minor changes, and then widely distributed to Department district health officers and practicing physicians for their guidance

In addition, on July 19, a Division of Poliomyelitis was established in the Bureau of Preventable Diseases This division was staffed by epidemiologists, statisticians, and clerks who collected data, made investigations and studies

Regular meetings were held several times each week, to discuss progress of the outbreak as well as steps to be taken in instituting necessary measures Weekly meetings were held, to which were invited the Commissioner of Hospitals, representatives of the United States Public Health Service and of the State Health Department

Concurrently, the number of poliomyelitis cases increased sharply Whereas the number of reported illnesses for July was but 260, almost 1,200 additional cases occurred in August The outbreak reached its peak during the second week of August, when approximately 300 new patients were reported By September 1, the total for the first eight months of the year had increased to 1,549 cases and 130 deaths

Every reported patient was visited by an epidemiologist and a detailed history obtained from the family and from the attending physician The data thus obtained will be studied for any light these may throw on the method of spread In addition to these visits, follow-up calls to determine the progress of the patient were made in each instance, approximately thirty days after the onset of illness

Concomitantly, studies were initiated to attempt to answer the many questions received by the Health Department These included the possible influence of various environmental factors, such as bathing at public beaches and pools, and the possible carrier role of the fly

of the veterans with service-connected disabilities and urges Congress not to delay the setting of a limit of 120,000 beds

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Typical findings:

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68 75 (Sept.) 1948

Healy J C. Journal Lan
t 66 218 221 (July) 1946.

Kelly H T Pennsylvania
l J 51 999 (June) 1948

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In view of the fact that a large portion of the public fears the possibility of the spread of poliomyelitis by bathing at public places, a study was initiated to determine the bathing habits of those ill with the disease At the same time, the bathing habits of a control group consisting of well people were also investigated This was done by canvassing a sample of 14,000 families, comprising 50,000 to 60,000 individuals in the metropolitan area Results of these investigations will be published at a later date

The outbreak was city-wide The distribution of illness by health districts, of which there are thirty in New York City, did not vary greatly, except in a few instances In Manhattan there appeared to be a concentration in the lower East Side In Brooklyn a similar concentration occurred in the Gravesend area, and in Queens it was more evident in the Flushing, Jamaica-West and in the Maspeth-Forest Hills areas

As in previous outbreaks, most of the cases have been in the younger age groups, children under fifteen making up about three fourths of the entire number It was noted, as in the past, that the nonwhite population was less affected than the white population Five eighths of the patients suffered some degree of paralysis Approximately 92 per cent of all patients were hospitalized, almost all of these had a spinal tap done to confirm the clinical diagnosis

The question of the opening of schools was brought up by a number of persons The point of view of the Department of Health was similar to that of other public health agencies, and of those engaged in the study of poliomyelitis No good reason exists for a postponement of the opening of schools All previous experience in this city and elsewhere indicates that an outbreak of poliomyelitis continues to abate whether school is open or not and that the delay of the opening of schools does not make it abate any faster

With poliomyelitis waning, emphasis by the Department is being shifted from the care of those in the acute stage to rehabilitation under the Health Department Division for Handicapped Children Nonparalyzed patients will be followed for a period of two years to ascertain if deformities will occur, those who are paralyzed for as long as is necessary Assistance will be given to provide home care by trained nurses and physiotherapists, or hospital care in recognized institutions Arrangements have also been made for the education of handicapped children Where necessary, special classes will be formed in the schools, hospitalized children will be taught in the hospitals, and, in the cases of home-bound children, teachers will be sent to the homes —MORRIS GREENBERG, M D , *Director, Bureau of Preventable Diseases, New York City Department of Health*

OFFICE MANAGEMENT OF VENEREAL DISEASES

"The time has now arrived when the diagnosis and treatment of venereal diseases should properly revert to the office of the private physician " are the words prominently displayed on the cover of a valuable and useful booklet recently issued by the Bureau of Social Hygiene of the New York City Department of Health, in cooperation with the New York State Department of Health and the United States Public Health Service This booklet outlines for the physician the management of venereal disease patients and is up-to-date on the new methods of treatment, including penicillin and other antibiotic agents, although the final word on these remedies cannot be written at this time

The publication is well worthy of the attention of the practitioner and may be obtained from the Department of Health, 125 Worth Street, New York 13, New York

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1 Dieckmann, W J, and Priddle, H D American J Obstet. & Gynec. 57 541 546 (March) 1949

2 Chesley, R F, and Annitto, J E Bull Margaret Hague Maternity Hospital 1 68 75 (Sept) 1948

3 Healy J C. Journal Lancet 66 218 221 (July) 1946

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Blalberg A. M Heart Failure 2nd Ed. Phila. Lea & Febiger 1946 p. 733.

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The Treatment of Hypertension, editorial J A. M A. 135.576 (Nov 1) 1947

" [By] the more frequent usage of the mercurials in cardiac dyspnea the attending physician PROLONGS THE LIFE AND COMFORT of his patient"

Donovan M. A. New York State J Med. 45 1756 (Aug. 15) 1945.

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  Modell, W Gold, H. and Clarke D A. J Pharm. & Exper Therap 84 -84 (July) 1945.

- "The authors favor the administration of mercury intramuscularly rather than intravenously and for this purpose employ preparations such as MERCUHYDRIN"

  Thorn G W and Tyler F H. Med. Clin. North America (Sept.) 194 p 1081.

- "The results of our experiments suggest that the greatest cardiac toleration for a mercurial diuretic occurs with MERCUHYDRIN"

  Chapman D W and Shaffer C. F Arch. Internal Med. 79 449 1947

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  Welser F A. Grace Hospital Bulletin, Detroit (Jan.) 1947 p 25.

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Scientific Articles

THE MANAGEMENT OF THE SYMPTOM COMPLEX IN ACUTE POLIOMYELITIS

EMIL SMITH, M D , DAVID J GRAUBARD, M D , and PHILIP ROSENBLATT, M D , F A C P , Brooklyn, New York

(*From the Communicable Disease Service and Department of Laboratories, Kingston Avenue Hospital*)

DESPITE recent major advances in antibiotic and chemotherapy, specific means of combating the virus of acute poliomyelitis are as yet unknown As a consequence, treatment in this disease is symptomatic and directed toward minimizing pain, spasm, and deformity

In previous reports it was suggested that the sympathetic nervous system was being largely neglected in assaying the clinical picture of poliomyelitis [1-3] Histopathologic evidence was presented in support of theoretic considerations Clinical observations also substantiated the belief that vasospasm played an important role in the production of pain, muscle spasm, and vasomotor instabilities of varying types

It is the purpose of this report to evaluate the clinical response of 120 poliomyelitis patients treated with sympatholytic drugs at the Kingston Avenue Hospital during 1948 As a result of this study, impressions concerning the pathologic physiology involved in acute poliomyelitis crystallized more clearly, and additional histopathologic material became available for confirmatory observations

Pathogenesis of the Symptom Complex

Acute poliomyelitis is a specific inflammatory disease involving principally the gray matter of the spinal cord Characteristically, in fatal cases, lesions are found in the meninges and bulbospinal axis, chiefly in the gray matter of the anterior horn. The internuncial groups of neurons are often affected, and frequently lesions are seen in the posterior horns as well Inflammatory foci have also been found in pons, midbrain, cerebrum, and cerebellum. In the limited number of cases which we have observed by autopsy, lesions have been regularly seen in the sympathetic ganglia

With knowledge of the widespread distribution of inflammatory foci, it is possible to theorize and explain the symptom complex in acute poliomyelitis The pain, muscle tenderness, and vasomotor symptoms are undoubtedly central in origin resulting from focal inflammatory changes in the central nervous system, sympathetic ganglia, or both The early symptoms may be sharply localized to the involved nervous structures, but as the disease progresses, the areas involved become more widespread and diffuse For example, a focal lesion in the spinal

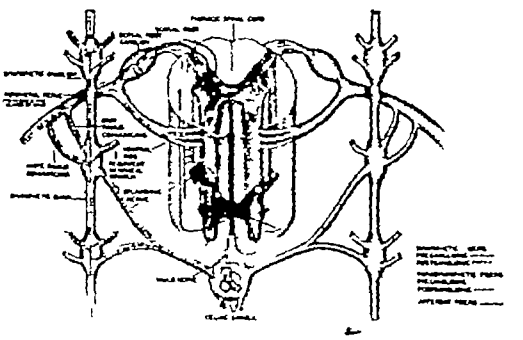


FIG 1 Anatomic schematization representing the pathology for the spreading waves of excitation An inflammatory lesion in the anterior horn cells may create an abnormal state of activity in the intra-, trans-, or intersegmental neurons in the spinal cord gray matter The disturbance thus created may express itself in an abnormal motor response from both lateral and anterior horn neurons of one or more segments of the cord The resulting *muscle spasm and vasomotor changes may furnish* new sources of pain and new reflexes The pathologic physiology may continue to spread and involve parts or all the muscles and blood vessels of the body, thus setting up the symptom complex.

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Pediatrics, May 5, 1949

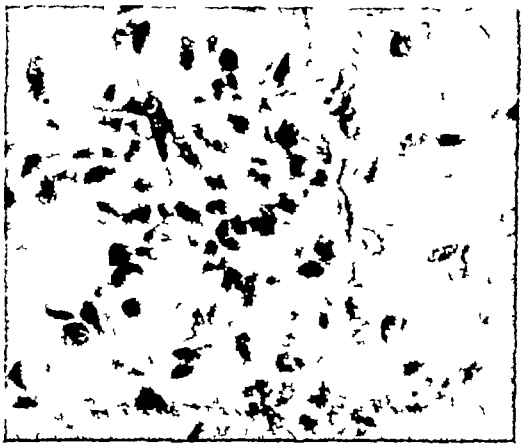


FIG 2 Infiltration of sympathetic ganglion with polymorphonuclear leukocytes and small round cells in poliomyelitis (hematoxylin-eosin stain, 400 ×)

cord may initiate a spreading aura of pain due to altered or accelerated conduction of impulses upward, downward, or trans-segmentally from the primary site of injury (Fig 1) In general, the more intense the noxious stimulation, the more widespread is the area of reference Hyperalgesia and hyperesthesia may also be the result of spreading waves of excitation

Not only is receptor activity involved in the spread of excitation in the nervous system but effector activity as well This is illustrated by skeletal muscle spasm, smooth muscle and gland effects, and modified reflex activity Secondarily contracted muscles may also give rise to local rigidity and tenderness, occurring in addition to the local tenderness attributable to the central modification of sensory impulses from an area of referred pain as described above. These additive stimuli may themselves act as centers for spreading waves of excitation with the production of secondary centers of stimulation

It can thus be readily appreciated that a focal inflammatory process in the spinal cord can set up a cyclic series of events leading to diffuse and bizarre clinical phenomena On this must now be superimposed the results of the concomitant inflammatory changes in the sympathetic ganglia (Figs 2, 3, 4) Lesions in these structures may result in angiospastic phenomena, hyperhidrosis, and dysfunctions of the gastrointestinal and urinary systems, to mention but a few

At this point, a case illustrating some of the features described above may be cited

B H, a nineteen-year-old white boy, was admitted to the Kingston Avenue Hospital, July 27, 1934, complaining of pain in the right side of the chest and abdomen of four days duration Three days prior to admission he developed pain and stiffness of the back and neck. That day pain radiated to the right lower extremity On the day of admission the right leg became paralyzed, and he developed weakness of the left leg as well

Examination in the hospital revealed stiffness of the neck and back, absent abdominal and cremasteric reflexes, and absent knee and ankle jerks bilaterally The right lower extremity was completely paralyzed, but the left could be lifted and rolled from side to side The femoral and popliteal



FIG 3 Degenerating sympathetic ganglion cell in poliomyelitis Note scalloped cytoplasm at periphery of cell and absence of Nissl substance and nucleus (hematoxylin-eosin stain, 450 ×)



FIG 4 Degenerating sympathetic ganglion cells in poliomyelitis showing satellitosis (hematoxylin-eosin stain, 450 ×)

arteries were painful to palpation as were the hamstring muscles Oval hyperesthetic areas were noted over the calf muscles medially The right leg perspired profusely, but the feet were cold Constipation was marked.

A diagnosis of acute poliomyelitis was made, and since no specific therapy was available, he was kept under observation so that the natural progress of the disease could be studied. His recovery was gradual and uneventful. At the end of two and one-half years residual findings were limited to slight atrophy of the muscles of the right thigh. However, it had taken many months for the pain, spasm, and vasomotor changes to revert to normal.

Probably this patient had minimal organic involvement of the spinal cord because of a slight degree of permanent damage The initial symptomatology, however, indicated a much more widespread process

It is possible to explain the bizarre symptomatology on the basis of spreading reflex impulses from small, primary focal areas of inflammation. In all probability, most cases of poliomyelitis fall into this group It is common clinical experience that patients are admitted with widespread paralytic and nonparalytic phenomena which clear up, leaving very few residua It is not enough to postulate sublethal ganglion cell damage, reflex stimulation of proximal and distal nerve cells must also play a role in the production of the varied clinical findings [4]

Therapeutic Approach to the Symptom Complex

Because of the feeling that much of the pain and spasm in acute poliomyelitis was directly or indirectly due to the spread of waves of nervous excitation along the sympathetic nerves with resultant vasoconstriction and ischemic changes, it was decided to direct therapeutic attempts at blocking or interrupting these pathways The drugs used were procaine hydrochloride, diethylaminoethanol hydrochloride, and Priscol hydrochloride *

Clinical Material and Methods

During 1948, 208 cases of acute poliomyelitis were admitted to the Kingston Avenue Hospital Early in this investigation cases were selected for sympatholytic therapy whose prognosis was deemed to be good Thus, encephalitic, bulbar, bulbospinal, and respirator cases were eliminated Extreme care was exercised not to use this method in cases which might have a fatal termination or develop complications, lest these complications be wrongly attributed to the method of treatment Also eliminated from therapy were those mild cases in which the sole neurologic finding was an absent reflex This group comprised 80 cases, of which seven died When it became evident that the drugs could be used safely, all patients admitted to the hospital received the drugs routinely Thus a total of 126 patients were treated, of which four were given procaine hydrochloride intravenously according to a technic previously described, two were given diethylaminoethanol hydrochloride orally, and the remaining 120 patients were treated with Priscol hydrochloride [2,3] Of the treated patients, two died It is of interest that in each of the fatal cases, both treated and nontreated, laryngoscopy prior to death revealed the vocal cords to be mobile and the larynx widely patent

Procaine was abandoned because of technical difficulties incident to intravenous therapy in children, and studies with diethylaminoethanol were not pursued because preliminary observations were indefinite

The 120 patients treated with Priscol encompassed both sexes and included individuals of all ages, varying from one and one-half to forty-five years The majority of patients were between five and twenty years of age

Best results with Priscol were obtained when the patient experienced a sense of body warmth or when the skin flushed The dosage necessary to produce these effects varied and had to be individualized As a result the following schedule was employed

Group 1 (Sixteen Years and Over)—If the patient was suffering with acute pain, hyperesthesia, or showed evidence of muscle spasm by refusing to straighten out an extremity, Priscol was given intramuscularly The initial dose was 50 mg If the patient flushed, he was given 50 mg every three or four hours However, if he did not flush, the dose was increased 12 5 mg every three or four hours until the amount necessary to produce the flush was found This amount or the next smaller dose was then used as a maintenance dose As soon as the pain and muscle spasm subsided, oral Priscol was substituted The oral dose was usually higher than the intramuscular The largest single dose given either intramuscularly or orally was 112 5 mg

Group 2 (Five to Sixteen Years)—The initial dose was 25 mg intramuscularly, otherwise the procedure was the same as above

Group 3 (Infants to Five Years)—In this group

* We are indebted to Ciba Pharmaceutical Co. Inc Summit New Jersey who kindly supplied us with Priscoline (R) for our investigations. Since presentation of this paper the name has been changed from Priscol to Priscoline

the Elixir of Priscol was given.* The initial dose was 10 mg (each dram contained 30 mg of Priscol) Otherwise the procedure was the same as above

The longest period of time that Priscol was administered was seven and one-half months The dose given was 75 mg every four hours Repeated blood counts and urine analyses on all patients did not reveal any changes from the use of this drug

No serious side-reactions were observed from the use of Priscol Five per cent of the patients developed nausea and vomited When this undesirable reaction occurred, the dehydration that developed was counteracted by intravenous infusions of 10 per cent glucose in isotonic saline solution It was soon noted that nausea and vomiting ceased when the patient became afebrile, at which time the intravenous infusions were discontinued None of our patients developed diarrhea

Results

Most of the patients with acute poliomyelitis who were admitted to the hospital were fretful and irritable The pain they suffered kept them awake at night and undermined their morale In most instances, analgesic drugs given prior to admission afforded little or no relief

When Priscol hydrochloride was administered in amounts sufficient to produce a therapeutic effect, there was a remarkable sense of well-being The patients rested more comfortably during the day and slept quietly at night The appetite improved, and they enjoyed their food The acute pain subsided quickly, and extremities, flexed because of pain or muscle spasm, were easily straightened The muscle twitchings present in some of the patients quickly disappeared The cold and clammy skin (so frequently seen on the extremities of acute poliomyelitis patients) disappeared and became warm Excessive sweating receded Oscillometric readings showed no return to normal for many weeks in the majority of cases Nevertheless, nearly all the patients showed some form of progress, and their clinical status improved so rapidly that it was possible to transfer the majority, relaxed and free of pain, to their homes or orthopedic hospitals in from seven to fourteen days In the past we were unable to accomplish this with any other form of symptomatic therapy

The following case reports are typical of our series

Case Reports

Case 1—L H., a twenty-eight-year-old white woman, was admitted to the Hospital September 24, 1948 Three days prior to admission she developed generalized aches and pains, stiff neck, and fever of 101 F This was followed by headache, backache, and pain radiating down both thighs. The pain later involved the lower chest, abdomen, and both lower extremities No relief was obtained by the administration of salicylates, demerol, codeine, and morphine On admission she was found to be pregnant, the date of the last menstrual period was June 10, 1948, the uterus being four fingers breadth above the symphysis pubis. The positive physical findings were stiffness of the neck and back and pain on flexion of the lower extremities All superficial and deep reflexes were present and hyperactive The skin over the lower chest area was so hyperesthetic that the bedclothes could not be tolerated The hamstring muscles were in spasm Bilaterally, the axillary, femoral, and popliteal arteries were extremely tender (oscillometric readings were unobtainable due to pain and tenderness) Spinal fluid examination revealed 490 cells and 146 mg of protein

On admission 75 mg of Priscol were given intramuscularly Flushing and a sensation of warmth developed within twenty minutes The hyperesthesia immediately began to subside, and within one hour there was absence of pain The spasm of the hamstring muscles subsided, and the patient was able to sleep for the first time since the onset of her illness. Therapy was continued 75 mg of Priscol were given every three hours during the day and every four hours during the night Two days after admission there was complete absence of pain, muscle tenderness, and spasm This form of treatment was discontinued on October 18, 1948 when she was discharged to her home, twenty-four days after admission and twenty-seven day after the onset of her illness. At the time of discharge there was still evidence of a viable pregnancy

Case 2—S C, a fourteen-year-old white boy, was admitted on October 7, 1948, with a history of onset of symptoms the night before hospitalization He complained of frontal headache, stiff neck and back, and pain radiating down both thighs His temperature was 103 F On admission all superficial and deep reflexes were normal, and no evidence of paralysis was noted. During the first hospital day the right leg became weak, and the right ankle, knee, and cremasteric reflexes disappeared On the second hospital day he developed weakness of the left lower extremity and a left foot drop All deep tendon reflexes were absent. By the morning of the third day the patient was extremely uncomfortable and complained of severe pain in both legs. Spinal fluid findings were 150 cells and 122 mg of protein

On the third day 75 mg of Priscol were given intramuscularly Although nausea and vomiting occurred, warmth of the skin and flushing developed. The dose was repeated every three hours during the day and every four hours during the night Within twenty-four hours the muscle spasm and tenderness subsided. He was able to straighten his legs with

* The Elixir of Priscoline was especially prepared for this study and is not available commercially It may be obtained for investigative purposes upon application to Ciba Pharmaceutical Products Inc. Summit, New Jersey

little or no pain by October 15, 1948, eight days after admission, when he was transferred for orthopedic aftercare He showed marked improvement, especially in muscle power and function

Case 3—V C a twenty-two year old white woman, was admitted on September 19, 1948, with a five-day history of malaise and low back pain which gradually increased in intensity and radiated down the thighs. On the day of admission she developed a headache and vomited The positive findings were stiff neck and back and intact superficial and deep reflexes. The muscles of the lower extremities were painful on motion and tender to palpation No tenderness could be elicited over the femoral or popliteal arteries There were small discrete areas of hyperesthesia over the medial aspects of both legs Her temperature was 99 F Spinal fluid studies showed increased pressure, 90 cells, and 86 mg. of protein The oscillometric readings taken below the knee were 2 5 on the right and 1 5 on the left.

The patient was given 50 mg of Priscol by mouth every three hours for twenty-four hours When flushing and warmth did not develop and muscle tenderness persisted, the dosage was increased to 62 5 mg every three hours. Because no response was obtained, the dosage was then increased to 75 mg of oral Priscol every three hours. A sensation of warmth was noted by the patient along with clinical evidence of flushing and diminution of muscle tenderness. On her fourth hospital day she was able to walk normally, and she was discharged on September 27, 1948, eight days after admission.

She returned for re-examination on October 30, 1948, with complaints of pain on walking. Oscillometric readings were 3 0 on the right and 2 0 on the left. By December 9, 1948 the oscillometric readings were 5 0 bilaterally There were no subjective complaints and no physical evidence of the disease. She was able to return to work.

Comment

It is generally known that back pain or pain in an area about to become paralyzed may be the first symptom of acute poliomyelitis This pain may be associated with or followed by a spreading stiffness or muscle spasm which, as a rule, involves the posterior muscles of the body Not infrequently, the muscle tenderness and spasm follow a segmental distribution [5] However, in most of our cases, the muscle tenderness and spasm was widespread and could not be distinctly localized segmentally Some of our cases showed hypersensitive areas which had no neurologic topography These sensitive areas were probably due to showers of impulses released within the gray matter of the spinal cord, thus affecting the sympathetic component of that particular segmental level, or of contiguous levels The resultant irritation was expressed in the periphery by tenderness and pain which were probably due to vasospasm Smith and his coworkers showed that the blood vessels were in spasm in acute poliomyelitis of the preparalytic, paralytic, and encephalomyelitic types [1]

Harpuder presented evidence indicative that painful stimuli were due to an increased concentration of potassium in ischemic muscle [6] Penfield suggested the axon reflex as a cause of peripheral pain and muscle spasm.[7] Davis and Pollock believe that liberated metabolites in the peripheral tissues stimulate the sensory nerve endings and are responsible for the muscle tenderness and spasm [8]

Whatever the cause of the pain and muscle spasm may be, the important factor is that sympatholytic or adrenalytic drugs diminish or abolish the pain and muscle spasm in acute poliomyelitis Meyer, Chess, Yonkman, Grimson, and others reported favorably on the use of Priscol hydrochloride in a variety of peripheral vascular diseases [9–14] Smith and Graubard used Priscol hydrochloride in acute poliomyelitis, Understeiner used it in subacute poliomyelitis, and Klare used it in chronic cases for the relief of pain and muscle spasm resulting from peripheral vasospasm.[3,15,16] Our results with 120 cases of acute poliomyelitis confirm these reports Lannon and Braudo, using another sympatholytic drug, obtained similar results [17] The optimum dosage seems to produce satisfactory circulatory changes in the vasospastic ischemic extremities of the acute poliomyelitic patient

Summary and Conclusion

The symptom complex of poliomyelitis has been analyzed from the point of view of pathologic physiology, and the role of the sympathetic nervous system has been emphasized

Symptomatic therapy with sympatholytic drugs, notably Priscol hydrochloride, has been used in a series of 120 patients with acute poliomyelitis admitted to the Kingston Avenue Hospital during 1948 Priscol has provided a favorable clinical response with early relief of pain and muscle spasm

The authors wish to express their sincere gratitude to Dr John A. Cahill and Dr Benjamin G Dinin superintendent and deputy superintendent of the Kingston Avenue Hospital for Communicable Diseases, respectively for their cooperation and assistance and also to Drs. Benjamin Kramer Irwin Schiff Leo Faske and Thurman Givan on whose services the study was carried out.

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Discussion

Irving J Sands M D, *Brooklyn*.—For close to twenty-five years, I have followed Dr Smith's work at the Kingston Avenue Hospital for Contagious Diseases His inquiring mind does not permit him to be satisfied with current explanations of clinical phenomena that do not fit into anatomic or physiologic theories or facts His diligence, perseverance, and habit of thinking out loud and asking questions of his coworkers have impressed everybody He has long ago stressed the role played by the involuntary nervous system in the symptomatology of poliomyelitis. Some fifteen years ago, he demonstrated a method of prognosticating the parts of the extremities that develop paralysis He did so by passing the soft part of the tip of the finger along the skin, and pressing it gently but firmly, and then observing the red flare that develops, by studying the size of that flare and its duration, he has shown that certain segmental involvements of the nervous system bear the brunt of the pathologic process and that the muscles supplied by these particular segments will become paralyzed

Of late he has become interested in the pain and stiffness of the muscles in acute poliomyelitis. He explains it on the basis of vasospasm secondary to irritation of the sympathetic nervous system. He enlisted the aid of Dr Graubard who has had experience in treating similar symptoms in other diseases, and now he has secured the help of Dr Rosenblatt in order to prove histopathologically the validity of his thesis, namely, that the involuntary nervous system is responsible for the pain in poliomyelitis

I have followed the largest number of the 120 cases which he mentioned in his paper I can only testify to the truth of the claims that the patients have been relieved of the pain in the vast majority of instances by the administration of the drugs mentioned by Dr Smith His theory lends itself to experimental corroborative evidence, and I am confident that it will stand the test of time and of experiments Dr Smith and his coworkers have made a most valuable contribution to the understanding of some of the most baffling aspects of poliomyelitis. They are to be congratulated for a very fine piece of work.

SCIENTIFIC EXHIBITS
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W P Andebton, M.D, *Secretary*

DISSECTING (INTRAMURAL) DIVERTICULITIS

SAMUEL E COHEN, M D , Elmira, New York

(From the Arnot-Ogden Memorial Hospital)

THREE years ago the author called attention to a kind of diverticulum which had not previously been described [1] The usual forms represent an extrusion of a lumen through its retaining wall whereby the sacculation projects beyond the serosal surface of the bowel In the dissecting (intramural) type a herniation of the lumen occurs into the wall of the gut, and then this sacculation burrows its way along the wall It is the purpose of this presentation to review the instance reported in 1946 and to add further examples of dissecting (intramural) diverticulitis.

The basis for the original report was furnished by a specimen removed from a sixty-year-old man who underwent a laparotomy with the preoperative diagnosis of obstruction in the descending colon due to carcinoma The resected specimen comprised 16 5 cm. of the sigmoid and was 6 cm. in diameter The serosal surface was deeply injected, and the appendices epiploicae were thickly edematous On external palpation of the specimen the lumen was noted to be eccentric due to unequal thickness of the walls On section the lesser wall measured 1 5 cm., its layers appeared stratified, hypertrophic, and edematous (Fig 1A) The thicker portion of the wall measured 4 cm and was infiltrated with dense white tissue. The mucosa was smooth, intact, and hemorrhagic in places, the mucosal folds were swollen and coarse The initial line of incision to expose the lumen of the specimen fortuitously exposed a cavity in its thicker portion. Here the wall had become separated into two layers by a space which extended most of the length and part of the circumference of the specimen. A few centimeters from the oral end, a round mammilla-like stoma, 0 5 cm. in diameter, was present which easily admitted a probe and communicated directly with the intramural sinus This cleavage extended in the long axis of the specimen for a distance of 9 cm and was 2 to 3 cm in width Approximately in its middle third, the cavity disclosed an accessory space extending laterally and around a portion of the wall This lateral projection ran parallel to the transverse diameter of the specimen for a distance of 2 8 cm Some radiopaque material was borrowed from the roentgenologist, injected into the intramural cavity space, and an x-ray taken.

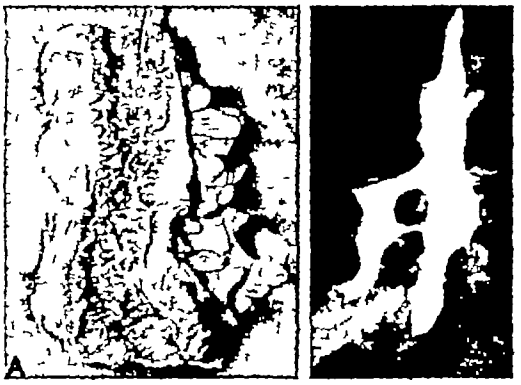


FIG 1 (A) Specimen of sigmoid (Case 1) A mammilla-like stoma admits a probe and is the entrance into an intramural cavity space. (B) Demonstrates the intramural diverticulum which has been delineated by radiopaque material.

Figure 1B shows the delineation of the intramural pathology The stoma is at the upper end, and the sinus widens as it extends downward Just past the middle, the diverticulum broadens appreciably and then bifurcates to end in two separate spurs The island in the center represents a pillar of intact wall. The specimen was transected and the oral portion of the intramural diverticulum exposed (Fig 2A) A probe is inserted into its cloaca and protrudes from the diverticulum In Fig 2B the aboral end of the specimen is demonstrated Again, you will note the intramural sinus running almost the whole length. At its distal end, the resected sigmoid



FIG 2 (A) Oral portion of the intramural diverticulum (Case 1) A probe is inserted in its cloaca and protrudes from the diverticulum which has been incised longitudinally (B) Aboral end. The intramural (dissecting) diverticulum extends almost the whole length. At the extreme end are three conventional diverticula.

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revealed one larger and two smaller ordinary diverticula, one of which was separated from the intramural dissecting diverticulum by a thin septum

Microscopically, the cavity space was lined with surfaces made up of chronic vascular granulation tissue which showed marked infiltration with polymorphonuclear leukocytes An occasional remnant of mucosal gland was still present The sinus space was situated outside of the circular layer of muscle between the layers of muscle and the subserosal adipose tissue The inflammation extended into the adjacent adipose tissue but was of mild character At the apex of the main diverticulum other islands of mucosal glands were noted, representing cross sections of the diverticula noted grossly

In reviewing the morbid changes encountered in this case, the following pathogenesis and interpretation of the clinical course can be formulated The patient had a diverticulosis comparable to that which is quite common One of these saculations, the most orally located, had its progression through the wall arrested, was turned distally, and then was propelled isoperistaltically within the wall of the bowel Diverticulitis set in which accelerated the dissection. The conversion of the diverticulum into a chronic sinus aggravated the condition, facilitated its extension, and led to the formation of the lateral components When this cavity became filled with feces and/or gas, the patient developed signs of obstruction. The degree of peridiverticulitis was not pronounced so that this feature was not appreciable in the onset of the ileus which caused admission to the hospital

Case Reports

Case 1—The patient from whom the specimen was removed was a sixty-year-old white man, a foreman-lumberman He was admitted to the hospital because of abdominal distention, pain in the left lower quadrant, and vomiting of feces-like material. For ten days there had been no defecation. The patient came as a transfer from an adjacent community hospital where he had been treated twice with a Miller-Abbott tube and enemas The ailment was of fifteen years duration, the initial symptoms including tympanitis, considerable flatus, borborygmi, and vague pains in the lower abdomen These grouped themselves into bouts during which attacks he was unable to have bowel movements or expel gas. He recalled that these episodes occurred approximately twice yearly, enemas brought some relief

At the time of the operation, little feces was encountered, and the intramural diverticulum was ballooned out by gas under pressure Its cloaca was edematous, causing closure and a ball-valve or tension mechanism. Had the dissection gone further, with the diverticulitis burrowing into one of the distal diverticula, spontaneous healing might have occurred In this event, the sigmoid would have shown a double-barrelled configuration, the feces and gas being propelled down the accessory canal as easily as through the main lumen

Thus, the sequence of events included sacculation, intramural diverticulum, isoperistaltic propulsion, diverticulitis, dissecting diverticulitis, tension pneumodiverticulum, and ileus

During the three-year follow-up the man has been hale and happy

Case 2—The second case to be presented was a fifty-eight-year-old man who consulted his surgeon because of a pain in the left lower quadrant of the abdomen. In this region the physician promptly palpated a tender movable mass which was elongated and firm. The patient gave a history of rapid deterioration of his strength and loss of considerable weight during a period of five to six months. There had been constipation alternating with diarrhea. In the last two months the constipation had become obstinate and required drastic cathartics for relief A few days prior to admission the patient vomited fecaloid material. Roentgenographic examination utilizing a barium enema revealed an obstruction in the lumen of the large bowel at the junction of the descending colon and sigmoid. An area of stenosis, 6 cm. in length, was reported by the radiologist who also described a diverticulosis The rectal examination was negative, a sigmoidoscope when introduced its full length did not reveal a tumor

A laparotomy was performed with the preoperative diagnosis of carcinoma of the colon. The surgeon resected 27 cm. of large intestine

In this instance, the gross specimen received in the laboratory again displayed inequality of the walls with narrowing of the lumen The mucosal folds were hypertrophied, edematous, and sprinkled with petechiae The mucosa was smooth and intact except for multiple small openings which communicated with eventrations of the lumen into the thicker side of the wall. Each could be easily probed, some were stuffed with fecaliths One of these diverticula revealed itself to be constituted differently Its stoma communicated with a tract that had burrowed its way along the wall and had separated the layers. This intramural diverticulum contained some mucoid exudate The specimen showed no evidence of tumor formation. The blood vessels were advancedly sclerotic

Microscopic sections from the specimen revealed multiple small diverticula of the conventional type, one of which was situated deep in the wall. Multiple lymph nodes were present in the mesocolon and showed simple reactive chronic lymphadenitis. A section through the dissecting (intramural) diverticulum included a portion of the adjacent mucosa which was normal. The mucosa was noted to dip down into the sinus tract, line the diverticulum for a distance, and then was destroyed. This diverticulum was in the manner of a spearhead, advancing and penetrating into the wall. The muscularis was disrupted and the dissection occurred, in this instance, within the muscle layers. The direction was toward another diverticulum of the simple kind. If the two had become conjoined, we would again have had an



FIG 3 Serial sections of appendix (Case 3) (1) Cross section showing the lumen extending almost the whole diameter of the specimen. At one end the lumen bulges and has herniated into a sacculation. (2) Gradual constriction of same. (3) Two separate lumens are apparent, a corridor of connective tissue separates the intramural diverticulum and the main lumen. (4) Main lumen is absent (chronic obliterative and granulomatous appendicitis), but the intramural diverticulum is still present.

accessory lumen with shunting and bypassing of the main lumen. Just above the apex of the spearhead was a ramification of still another diverticulum. The mesocolon contained some lymphadenoid accumulations with chronic lymphadenitis. The degree of periditerticulitis was moderate but more advanced than in the first case.

Dissecting (intramural) diverticulitis is a rodent form of diverticulum. It begins as an extrusion of the lumen. The mucosa which originally covered the sacculation disintegrates, but remnants are still scattered along the sides. These remnants identify the origin of dissecting diverticulitis and distinguish it from a simple sinus tract or fistula. Probably many of these erupt and spill into adjacent diverticula, thereby eliminating themselves This would account for seeing so few among our surgical material

The next examples are from appendices which were removed for the same reasons all others are and will be Figure 3 and - a granulomatous appendix with a lumen that extends almost the whole diameter of the cross section At one end the lumen bulges and has herniated into a sacculation (Fig 3—section 1) The mucosa is intact, another smaller diverticulum will be noticed below it Serial sectioning shows narrowing and constriction near the outpouching, and gradually two lumens appear to have become established (Fig 3—section 2) The smaller diverticulum is slightly longer, its mucosa is ulcerated In Figure 3—section 3, the new, accessory lumen is distinct and separate, a corridor of connective tissue intervenes between the diverticulum and the main lumen of the appendix. The diverticulum has become intramural This situation was observed in sections prepared from blocks of tissue cut below and above the level of eventration. In the tip of the specimen the main lumen is absent, having become obliterated, but the intramural diverticulum is still seen (Fig 3—section 4) Reconstructing our findings, we can conclude then that we have a case of a chronic obliterative appendicitis In its distal one third an extrusion of the lumen occurred, which sacculation runs up and down in the wall. This is an intramural diverticulum—no diverticulitis yet It consists of an ancillary space in the wall possessing an intact mucosa The ordinary appendiceal diverticulum is evident externally as a small projection which interrupts the contour of the organ. These can be multiple and are found anywhere along the appendix. The intramural diverticulum is different it is located in the wall, there are no pouches or irregularities on the surface

The second appendix was one with a well-formed lumen. Extending from a point near its mesenteriole, there was a projection of the lumen which was burrowing and infiltrating its way into the wall It had progressed for a considerable distance around the periphery and dissected the wall into layers The lesion was erosive in character, and the mucosa had been sacrificed. The diverticulitis was sickle in outline

In the third appendix, the dissecting diverticulitis was in the form of a crescent situated in the outer limits of the wall. In the tissue available the lumen of the appendix was complete and the mucosa hyperplastic The section was prepared from a block cut near the distal one third of the specimen. Serial examination revealed that the diverticulum had advanced from an origin in about the middle third The whole wall of the specimen showed subacute inflammatory changes

Comment

In the five cases presented the features of dissecting (intramural) diverticulitis are fairly constant If the author's thesis is valid it should be

possible for others to demonstrate such intramural and/or dissecting diverticula Also, wherever a lumen is present in the body, that organ should be capable of developing a comparable diverticulum under morbid circumstances

In December, 1947, Melamed and Walker presented a case of dissecting diverticulum of the pharyngoesophagus [2] This intramural diverticulum was situated posteriorly in the midline of the esophagus and was located between the mucosa and the muscularis The patient was a fifteen-year-old lad who gave a ten-months history of dysphagia The authors developed four radiologic characteristics to facilitate future clinical recognition of the entity At operation, the posterior wall of the esophagus at the level of the cricoid cartilage disclosed a pouch which admitted the index finger and could be emptied readily It extended for approximately 2 5 to 3 cm under the muscularis This mucosal pouch was turned inside out by the surgeon and excised The authors classified their case as a pharyngoesophageal pulsion diverticulum developing and extending intramurally They postulated a developmental abnormality which permitted the origin and growth of this diverticulum

Cooke reported on "Intramural Diverticulum of the Vermiform Appendix" [3] He wrote partly as follows

The clinical history of the case was that of a man aged forty-three who was admitted to hospital suffering from acute appendicitis There was no history to suggest a previous attack The appendix was removed, and the patient made an uneventful recovery

The appendix did not present any unusual feature except for intense injection of the serosa and tumefaction, as associated with an acute attack. There was no evidence, externally, of a diverticulum Sections of the proximal part presented the usual evidence of acute appendicitis The lumen was filled with exudate and necrotic musoca infiltrated with pus cells Near the lumen and running parallel to it was a diverticulum The wall of the diverticulum consisted of a muscularis mucosa and mucosa, which were infiltrated with round cells The section was taken 1/ inch from the proximal end of the appendix as it was received in the laboratory The proximal end showed the diverticulum in exactly the same position, so the point of its emergence from the main lumen must have been close to the cecum

The diverticulum extended distally, close to the main lumen and internal to the muscularis externa, for 3/4 inch Toward its termination it moved slightly outward and finally partially penetrated the muscularis externa at the mesoappendix attachment.

The whole course, except the extreme tip, was situated in the submucosal layer, which had evidently been the seat of previous inflammatory trouble because most of it had been replaced by fibrous tissue The length of the diverticulum in the appendix was estimated to be 1 1/4 inch

Cooke added further

Diverticula of the appendix are of importance clinically on account of the danger of rapid perforation during an attack of appendicitis and because the symptoms and signs in such attacks are often anomalous Pathologically they are of interest in the manner of their formation, and from the possibility of the development of mucoceles and pseudomyxoma peritonei

Finally, I should like to mention an article by March, "Visualization of the Rokitansky-Aschoff Sinuses of the Gallbladder During Cholecystography" [4] The article appeared in February, 1948 from which the following is quoted

In a series of studies dealing with the morphology of the gallbladder, Halpert clearly distinguished the so-called "Rokitansky-Aschoff sinuses" from "true Luschka ducts." He called attention to some historical confusion in the naming and recognition of these structures Rokitansky in 1842 described 'hernia-like outpouchings of the gallbladder mucosa" toward the external layers of the gallbladder Aschoff in 1905 described them in terms of modern histology, naming them "Luschka's ducts" and emphasized their pathological significance especially in connection with biliary stasis in the gallbladder and with the formation of gallstones. It was soon pointed out that these structures were not the aberrant bile ducts discovered by Luschka in 1863 in the wall of the gallbladder

The healthy human gallbladder rarely shows the presence of Rokitansky-Aschoff sinuses If present at all, they are shallow The name is applied to the deeper outpouchings or sinuses of the gallbladder mucosa which dip down into the muscularis or extend as finger-like processes through the muscular coat into the perimuscular layer It is thought that these are not proliferations, but are *herniations* into and through the interstices and delicate septa between the muscle bundles Halpert feels that the muscularis of the healthy gallbladder under ordinary conditions is dense enough to prevent such outpouchings When the gallbladder is pathologically involved, there occurs in it a more or less general loosening and weakening of the contractile elements with a widening of the intermuscular septa, under which circumstances extreme contractions which follow prolonged and repeated overdistentions of the viscus are most likely to play the leading part in the production of these herniations The length, diameter, and manner of penetration of the Rokitansky-Aschoff sinuses show infinite variations.

Figure 4A is a gallbladder showing a herniation of the lumen extending through the muscularis and almost to the serosal surface Unqualifiedly, what is demonstrated can be called a diverticulum Figure 4B is another gallbladder with a cluster of Rokitansky-Aschoff pouches in the wall The epithelium is intact, and the largest pouch (the lowermost) faintly communicates with the lumen The epithelium can become de-



FIG 4 Sections from gallbladders (author's cases 6 and 7) (A) Herniation of the lumen through muscularis (B) and (C) Illustrate clusters of Rokitansky-Aschoff pouches in the wall The epithelium is intact in (B) and the largest faintly communicates with the lumen, in (C) the epithelium is absent These sinuses and pouches are interpreted as identical with dissecting (intramural) diverticulitis as illustrated in previous figures

stroyed (Fig 4C) These structures can be detached and isolated and accompanied by much inflammatory infiltration They are extrusions of the lumen and are situated in the wall The Rokitansky-Aschoff pouches are veritably examples of intramural diverticula The term "Rokitansky-Aschoff sinuses" is used interchangeably with "pouches," implying that these can advance and burrow along in the wall The pathology is identical with the author's dissecting (intramural) diverticulitis

Summary

1 The usual form of diverticulum represents a protrusion of the bowel lumen through its retaining wall Such sacculation generally projects beyond the serosal surface of the intestine "Dissecting (intramural) diverticulitis" is a type whereby the extrusion of the lumen is into the wall of the gut The herniation then burrows its way along the wall and dissects between the layers of the bowel In the pathogenesis intramural diverticulum precedes dissecting diverticulitis, but the former may occur alone Two instances encountered in the colon and three in the appendix are presented

2 A case of dissecting (intramural) pharyngoesophageal diverticulum is cited

3 Information is given about another author's report of an intramural diverticulum of the appendix.

4 It is postulated that Rokitansky-Aschoff pouches and sinuses in the gallbladder represent examples of intramural diverticula and dissecting diverticulitis

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Discussion

Alfred P Ingegno, M D, *Brooklyn* —The problem of diverticulitis is one of intense interest to the gastroenterologist Dr Cohen is to be congratulated for the careful study he has given to this unusual intramural type of diverticulum It is from such meticulous work of pathologists that the clinician learns to evaluate better his patients' difficulties and pursue more rational avenues of treatment I daresay that, under the stimulus of Dr Cohen's reports on the subject, it may well be that dissecting diverticula will be looked for and found more frequently than they have heretofore

Of course, diverticula in various parts of the gastrointestinal tract are very often incidental discoveries clinically, as they may be pathologically In the colon, for example, somewhere between 5 and 10 per cent of people may have diverticula demonstrable roentgenologically, and only about 20 per cent of these have symptoms which may be ascribed logically to their presence It is a curious clinical fact that whereas colonic diverticula may often be

possible for others to demonstrate such intramural and/or dissecting diverticula Also, wherever a lumen is present in the body, that organ should be capable of developing a comparable diverticulum under morbid circumstances

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Finally, I should like to mention an article by March, "Visualization of the Rokitansky-Aschoff Sinuses of the Gallbladder During Cholecystography" [4] The article appeared in February, 1948 from which the following is quoted

In a series of studies dealing with the morphology of the gallbladder, Halpert clearly distinguished the so-called "Rokitansky-Aschoff sinuses" from "true Luschka ducts" He called attention to some historical confusion in the naming and recognition of these structures Rokitansky in 1842 described 'hernia-like outpouchings of the gallbladder mucosa" toward the external layers of the gallbladder Aschoff in 1905 described them in terms of modern histology, naming them "Luschka's ducts" and emphasized their pathological significance especially in connection with biliary stasis in the gallbladder and with the formation of gallstones It was soon pointed out that these structures were not the aberrant bile ducts discovered by Luschka in 1863 in the wall of the gallbladder

The healthy human gallbladder rarely shows the presence of Rokitansky-Aschoff sinuses If present at all, they are shallow The name is applied to the deeper outpouchings or sinuses of the gallbladder mucosa which dip down into the muscularis or extend as finger-like processes through the muscular coat into the perimuscular layer It is thought that these are not proliferations, but are herniations into and through the interstices and delicate septa between the muscle bundles Halpert feels that the muscularis of the healthy gallbladder under ordinary conditions is dense enough to prevent such outpouchings When the gallbladder is pathologically involved, there occurs in it a more or less general loosening and weakening of the contractile elements with a widening of the intermuscular septa, under which circumstances extreme contractions which follow prolonged and repeated overdistentions of the viscus are most likely to play the leading part in the production of these herniations The length, diameter, and manner of penetration of the Rokitansky-Aschoff sinuses show infinite variations.

Figure 4A is a gallbladder showing a herniation of the lumen extending through the muscularis and almost to the serosal surface Unqualifiedly, what is demonstrated can be called a diverticulum Figure 4B is another gallbladder with a cluster of Rokitansky-Aschoff pouches in the wall The epithelium is intact, and the largest pouch (the lowermost) faintly communicates with the lumen The epithelium can become de-

AN UNUSUAL CASE OF ANTHRACOSILICOSIS

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THE essential clinical and histopathologic features of silicosis do not appear to be controversial and were defined by the International Silicosis Conferences of Johannesburg and Geneva, by the National Silicosis Conference, and in papers of Gardner, Sweany, Belt, and others [1-7] The case which is the subject of this report, however, is unusual in several respects and, therefore, deserves to be reported The histologic picture is not that of the classic nodular or diffuse fibrosis but presents an extensive patchy organizing pneumonia and interstitial changes which, in spite of prolonged exposure to dust, resemble those found in the early stages of the disease It is a case of simple silicosis which is not complicated by tuberculosis, and nowhere does the histologic picture suggest infection with acid-fast bacilli The silica content of the lung is extremely high This case is of social and economic importance, since the pathologist who is not silicosis-minded may overlook the cause of the changes described and may deprive the family of the deceased of the industrial compensation which many states allow the silicosis victims

Case Report

History.—R J , a forty-nine-year-old Negro molder in a steel foundry was in good health until September, 1942, when he had a severe "cold" with coughing spells and several attacks of hemoptysis A roentgen film revealed "bronchopneumonia." In November, 1942, he was seized by a severe coughing spell and had to stop working Dyspnea, coughing, and weakness progressed until he was admitted to a local hospital on December 29, 1942 His chief complaints were marked dyspnea, precordial pains, and occasional night sweats

Past history revealed luetic infection in 1918 or 1919 After four treatments with "606" in 1922, his blood was still "positive " Since 1920, with the exception of two years, he had worked in steel foundries, mostly as a molder The atmosphere he worked in was always very dusty, since large amounts of sand are used in the process of molding Further inquiry disclosed other cases of silicosis to have been known among the workers.

Physical Examination.—The patient was a fairly well-nourished, Negro adult man, moderately dyspneic The heart was enlarged, apex impulse was felt in the sixth intercostal space Systolic and diastolic murmurs were heard at the apex and over the aortic area The pulse was of the Corrigan type, and a Durozier's murmur could be heard over the femoral arteries The vessels of the neck and the capillaries showed distinct pulsations The systolic blood pressure was 150 mm Hg , the diastolic pressure was 30 mm. Hg Pulse rate was 102 per minute, respirations 28 per minute Other physical findings were essentially normal

The urine was essentially negative Laboratory examination showed red blood cells 3,190,000 per cu mm., white blood cells 7,400 per cu mm , hemoglobin 9 95 Gm , polymorphonuclears 64 per cent, lymphocytes 32 per cent, monocytes 4 per cent Sedimentation rate was 10 mm Kline slide test for syphilis was 4 plus with diagnostic and exclusion antigens Spinal fluid had an initial pressure of 10 mm Hg , final pressure 4 mm Hg Kline diagnostic test was 1 plus, exclusion test 2 plus Cell count was 35 white blood cells, protein 71 mg per cent, sugar 58 mg per cent Gum mastic curve was 44332

Chest x-rays showed enlargement of the heart and moderately increased linear markings of the lungs with indication of aortic regurgitation and stasis in pulmonary circulation

Hospital Course.—On the basis of the physical findings, the diagnosis of mitral stenosis and insufficiency and aortic insufficiency was made The patient was treated with digitalis, Mercupurin, and occasional intravenous injections of 50 cc of 50 per cent glucose A series of antiluetic treatments was started with potassium iodide, bismuth, and mapharsen The patient improved slightly and was sent home on January 26, 1943, to be treated in the medical outpatient department, but he was able to stay home for one week only Dyspnea and precordial pains increased to such an extent that he was readmitted to the hospital, where he remained with the exception of short intervals until his death. His condition, with temporary remissions, grew steadily worse, and he lost considerable weight

In the later months, moist, crepitant rales were heard over both bases of the lungs, but no dullness was elicited. There was a to-and-fro murmur over the aortic area, a rumbling systolic murmur, and a blowing murmur throughout the diastole over the apex. An x-ray picture taken in June, 1943, showed again an enlarged heart "consistent with the clinical diagnosis of luetic aortic insufficiency and passive hyperemia of the lungs " At that time, the clinical diagnosis was cardiac failure due to luetic aortic insufficiency, mitral insufficiency, and possible silicosis Several attacks of paroxysmal dyspnea were relieved by intravenous injection of 7 5 grains of aminophylline The blood pressure varied between 170/50 and 190/50 Dyspnea and cough increased, and the patient expired on November 10, 1943

Autopsy Report.—Autopsy was performed on the embalmed body two days after death The body

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found without similar involvement elsewhere, the reverse is rarely true One rarely finds diverticula of the esophagus or the duodenum, for example, without having concomitant diverticulosis coli.

The classification of diverticula into a true or congenital type and a false or acquired type on the basis of whether or not all the elements of the intestinal wall enter into its structure has always seemed to me a rather artificial one Careful study will reveal many diverticula which represent intermediate forms—forms which retain, to a variable degree, some of the elements of the muscularis propria It is perhaps more logical, then, to speak of these outpouchings as complete or incomplete rather than false and true, the final form depending on the completeness with which the muscular coat is penetrated. If such is the case, it is not illogical that at some point a partially evaginated or "frustrated" diverticulum may find its path of least resistance to be in the direction of propagation *between* the muscle coats rather than *through* them into the subserosa. Infection of such a diverticulum would then give rise to the features observed by Dr Cohen It may be expected further that in some instances an intramural or incomplete diverticulum need not, of itself, dissect between the muscle coats. It may merely become infected and this infection then spread and burrow in a longitudinal or circular direction between the layers of the gut wall. In such cases the infection or abscess would be dissecting but not the diverticulum. To be sure that the diverticulum itself had actually dissected one would have to demonstrate the presence of the mucosal elements of the diverticulum in the area of dissection. There might be, thus, some question whether one of Dr Cohen's colonic cases represented a dissecting diverticulum or merely dissecting infection arising from an incomplete diverticulum. There can be no question, however, concerning his beautifully demonstrated dissecting diverticula of the appendix.

I doubt very much that a clinical distinction of the dissecting type of diverticulum in the colon or appendix can be made Apparently, it is possible in the esophagus. If Dr Cohen's intriguing hypothesis that the Rokitansky-Aschoff sinuses of the gallbladder are, in reality, also dissecting diverticula, then the condition may be diagnosed here also In retrospect, I have seen one or two instances in which a double contour of the gallbladder was demonstrable roentgenographically, and it is now evident that the appearance was due to entry of contrast material into these sinuses or, if you prefer diverticula It may be that careful study of x-rays of the barium-filled colon and appendix for such a double contour may similarly permit suspicion of the presence of intramural diverticulation.

One other observation may be made. There is a conception that diverticula tend to occur at points of weakness created by entry of vascular channels into the bowel wall. It is sometimes argued against this that, if such were the case, the proximity of blood vessels would give rise to hemorrhage as a frequent complication of diverticulitis It is maintained that such hemorrhages do not occur In point of fact we have had several such instances at the Long Island College Hospital, that is, combinations of acute diverticulitis and hemorrhage. In one such patient in whom hemorrhage had caused death, it was possible to demonstrate pathologically the erosion of the wall of a small artery as it passed from the subserosa through a defect in the muscle in which the ulcerated base of a diverticulum lay

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PRICKLY HEAT CAUSE FOUND BY DOCTORS

Medical scientists at the University of Pennsylvania have announced they have found the cause of the common skin irritation known as prickly heat The skin condition is caused by perspiration being trapped within the sweat ducts, said Dr Donald M. Pillsbury, chairman of the school's department of dermatology and syphilology This was demonstrated, he said, over a two-year period in which 32 normal, healthy men volunteered to have prickly heat created in them artificially

When perspiration becomes trapped in the sweat ducts, Dr Pillsbury said, cells at the skin's surface become swollen and the patient has what doctors diagnose as "miliaria rubra," or what the layman calls prickly heat. It is an acute inflammation of the sweat glands, characterized by rashes of red papules, or skin elevations, and sometimes by blisters Its itchy, burning discomfort has plagued mankind from infancy

Dr Pillsbury, working with Dr Walter B Shelley and Dr Peter N Horvath, admitted that no cure for prickly heat was found during their experiments

—*Herald Tribune, August 7, 1949*



FIG 4 Early organization of alveolar exudate ote coal pigment within granulation tissue and uckened interalveolar septa (Low power, hema- xylin-eosin stain)

attered, small islands of normal lung tissue were served. The remaining areas presented severe athologic changes Several alveoli were distended y intact red blood cells which, in places, were inter- ixed with fibrin In large areas the alveoli and ronchioles were occluded by plugs consisting of red lood cells, fibrin, and large phagocytes studded with lack or gray-brown pigment (Figs 1, 2) In places ie pigment was so abundant that cell outlines were bliterated The alveolar lining was markedly yperplastic, and in areas the lining cells contained igment and were partially or completely cast off Fig 3) All stages of organization of the alveolar ontents were seen Few delicate fibroblasts with ecrete young congested capillaries marked the arly stages of organization, and dense scar tissue ex- anding into adjacent alveoli represented the final ages (Figs 4, 2) Throughout this tissue numerous dust cells" or free pigment were noted The inter- lveolar and interlobular septa were thickened in all ections, mainly due to a marked congestion of the apillaries and in many areas due to strands of dense yalinized tissue (Figs 1, 5) Also in the septa there as an abundant amount of pigment In a few small areas the organization was advanced to such a degree that the normal outlines of the lung architecture were obscured, and only foci of diffuse fibrosis were seen with a heavy infiltration of pigment (Fig 5) In two subpleural areas the fibrosis was of a nodular character There was a general marked perivascular and peribronchial fibrosis, and many lymphatics were occluded by pigment-filled phago- cytes and free pigment (Fig 1) In places capillaries and arterioles appeared to be compressed by the surrounding dense fibrous tissue Many arterioles and small arteries showed a considerable thickening of the intima with a narrow and eccentric lumen (Fig 6) Minute areas of recent hemorrhage were also seen within the thickened septa and alveoli A few small foci of acute bronchopneumonia were scattered throughout the parenchyma. Where alveoli were empty, signs of emphysema and slight bronchiectasis were noted The pleura was markedly thickened, and the pleural lymphatics were distended or occluded by pigment-filled phagocytes and free pigment After microincineration a large number of silica crystals were observed in sections taken from various areas of the lung The crystals were dif-



FIG 5 Marked thickening of interalveolar septa "Dust cells" in the lumen of the alveoli Area of carnification in left upper corner (Low power, hematoxylin-eosin stain)



FIG 1 Perivascular fibrosis with marked anthracosis Alveoli are filled with exudate consisting of dust cells, fibrin, and erythrocytes Hyperplasia of the alveolar lining (Low power, hematoxylin-eosin stain)



FIG 2 Advanced organization of alveolar exudate. (Low power, hematoxylin-eosin stain)

was markedly emaciated No free fluid was found in the pleural cavities The heart was markedly enlarged and weighed 690 Gm The apex of the heart was at the level of the sixth intercostal space in the anterior axillary line, and all chambers were considerably dilated The thickness of the right ventricular wall measured 0 7 cm and that of the left 1 8 cm The cusps of the mitral valve showed moderate thickening of the free margin, while the leaflets of the aortic valve contained many sclerotic plaques, and one leaflet was deformed The aortic arch presented moderate longitudinal wrinkling

The external surface and cut surfaces of the lungs showed considerable gray-black mottling, and the linear markings were more prominent than average The right middle and lower lobes contained circumscribed areas of consolidation and were cut with increased resistance In the upper lobes the pleura was markedly thickened, and the parenchyma showed a few firm miliary nodules with a black center surrounded by grayish-white tissue. The mediastinal, hilar, and mesenteric lymph nodes were considerably enlarged and anthracotic with uniform fine architecture of the cut surface

The remaining organs were without any appreciable pathologic changes

Microscopic Description *Lungs*—Only a few,



FIG 3 Hyperplasia of the alveolar lining Lumen contains several phagocytes filled with coal pigment. (High power, hematoxylin-eosin stain)

hard carbon, the probable result of charred binder While this sand is for the greater part uncombined silica (silicon dioxide), some of it does exist as the combined form (silicate) containing aluminum, iron, and calcium. The existing carbon increases from 5 31 per cent in the original sample to approximately 30 per cent in that portion passing a number 200 mesh screen."

Comment

The silicotic changes produced by prolonged inhalation of dust in this case presented the picture of an extensive patchy organizing pneumonia with only very few small subpleural fibrotic nodules and minute areas of diffuse fibrosis The early stages of this process resembled the "anthracotic desquamative pneumonia," a particular type of silicosis, described by Schmidtmann and Lubarsch, where the dilated alveoli were filled with 'dust cell," erythrocytes, and a protein-like material [5] Besides the pneumonic changes, the most prominent histologic features were the marked thickening and collagenization of the interalveolar and interlobular septa and the perivascular and peribronchial fibrosis An abundant amount of free and phagocytosed coal pigment and a large number of silica crystals were demonstrated

In spite of the atypical histologic picture, the chemical examination of the lung showed the extremely high value of 61 4 mg of free silicon dioxide per Gm of dried lung tissue This analysis shows how important the chemical analysis of the lung tissue is when the occupational and clinical history arouses the suspicion of silicosis Although a high silica concentration does not necessarily prove that the patient died from the direct or secondary results of inhalation of dust, the determination of silica values represents a diagnostic procedure of considerable value and may be the closing link in the chain for establishing a definite diagnosis of silicosis [9] Particularly in atypical and doubtful cases like the present one, the chemical analysis is imperative in order to secure for the relatives of the deceased the financial compensation and help of the state, which they deserve A pathologist who is not silicosis minded may overlook atypical histologic pictures without determination of the silica concentration in the tissues

No evidence of tuberculosis was detected, and, therefore, this case is one of pure anthracosilicosis This is another proof that these two diseases can exist independent of each other and that silicosis patients may die from the disease alone or from secondary cardiac failure

The lumina of many pulmonary arterioles were markedly narrowed or occluded due to a thickening of the intima In addition, there was an old rheumatic endocarditis and valvulitis of the aortic and mitral valves with deformity of the aortic valve and dilatation and hypertrophy of the right and left ventricles The clinical course showed that the treatment which was mainly directed against cardiac decompensation gave the patient only temporary relief It can, therefore be assumed that the symptoms were mainly caused by the pulmonary embarrassment The final cause of death was apparently anoxemia due to the extensive silicotic changes of the lungs and subsequent cardiac failure

A review of the literature on the pathology of the pneumoconioses discloses very few similar cases Hackmann in his material described pulmonary alveoli which were plugged by pigment-filled cells and a granulation tissue containing a large amount of pigment [10] Large areas of organization and carnification, thickening of the vascular intima, and obliteration of the pulmonary arterioles were also mentioned Most of his cases, however, also showed extensive nodular fibrosis and tuberculosis According to Bergstrand, in severe cases of silicosis, exudation into the alveoli may occur which may progress through organization into carnification [11] In his opinion this process is solely due to the effect of silica and not due to an intercurrent infection Riddel, Jephcott, and Irwin reported the case of an uncomplicated silicosis in a forty-two-year-old sandblaster who died after six years exposure [12] They found most alveoli filled with an inspissated, pigment-containing exudate, and the septa markedly thickened There was no evidence of infection

According to Gardner, Belt, Cummins and Sladden, and others, the thickening of the septa and the peribronchial and perivascular fibrosis represent the early stages of pneumoconioses but are not considered specific for silicosis [4,6,7 13] It is difficult to understand why, in the present case, in spite of a definite exposure of at least twenty years, the process did not progress into the typical nodular or diffuse fibrosis As a possible explanation, Sweany's observation is quoted—that the inhalation of coal or other mixed dusts together with silica seems to retard the development of typical nodular fibrosis [6] Lanza also stated that the silica content of anthracotic lungs may become twice as high or higher than the level at which silicosis usually develops, before the typical changes of silicosis become apparent [14] There was certainly a marked anthracosis in our case

However, this form of silicosis has been described previously In 1930, Simson *et al* mentioned that in cases of advanced silicosis the fibrosis may be localized in the interstitial septa and bronchioles and that the typical nodules may be absent [15] According to Pancoast and Pendergrass, there are cases of "early interstitial pre-

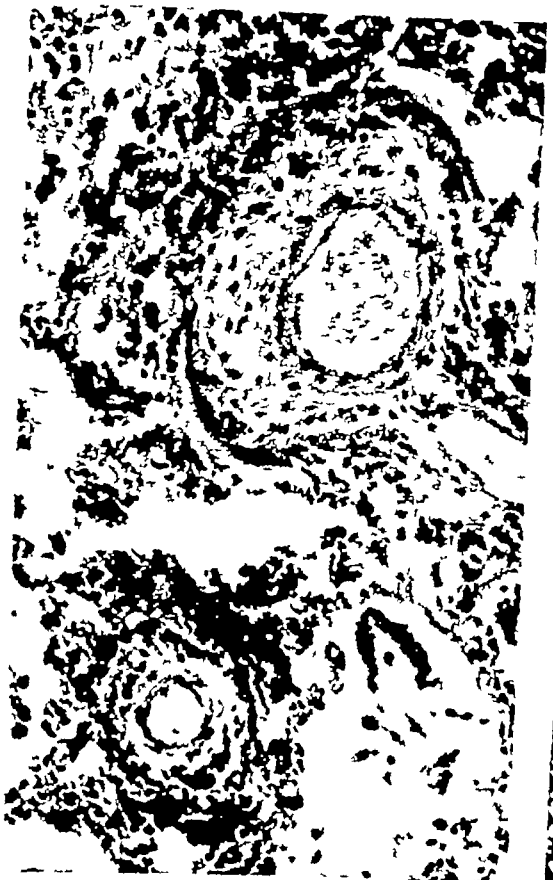


FIG 6 Thickening of the intima of small pulmonary vessels (Low power, hematoxylin-eosin stain)

fusely scattered over the slides or showed areas of dense conglomeration (Fig 7)

Lymph Nodes —Sections taken from several hilar and mediastinal nodes showed diffuse anthracosis Only a few small foci of normal lymphoid tissue were observed. No diffuse or nodular fibrosis was noted

Heart —The myocardial fibers were hypertrophic There was an old rheumatic endocarditis and valvulitis of the mitral valve One thickened leaflet of the aortic valve consisted of dense fibrous tissue The coronary arteries showed slight intimal thickening

Aorta —There was an old luetic mesaortitis and slight atherosclerosis

Liver —Acute and chronic passive congestion with atrophy of the central liver cell cords were present.

The remaining organs showed no essential pathologic changes

Chemical Analysis of the Lungs —The chemical analysis of the lung was as follows

Acid insoluble ash	67 4 mg /Gm. dried lung
Silicon dioxide	61 4 mg /Gm. dried lung
Hydrofluoric acid residue	6 0 mg /Gm dried lung

Examination of Molding Sand.—Sample of sand was collected at foundry where deceased was employed for ten years, analysis was as follows

Silica as silicon dioxide	88 31 per cent
Iron and aluminum as ferric oxide and aluminum oxide	4 76 per cent
Lime as calcium oxide	1 62 per cent
Ignition loss (carbon)	5 31 per cent

Two per cent of the sand passed a number 70 screen Particle sizes of that portion passing number 200 screen is as follows 65 5 per cent—2 micra, 21 5 per cent—10 to 5 micra, 13 0 per cent—5 to 2 micra.

"This apparently is a typical foundry sand with well-rounded grains. These grains are incrusted with



FIG 7 Section of lung after microincarceration conglomeration of silica crystals (White against black background)

A REVIEW OF THE DIAGNOSIS OF MALIGNANT CELLS IN SEROUS FLUIDS, SPUTA, AND BRONCHIAL SECRETIONS

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A REVIEW of the routine examination of body fluids and secretions submitted to this laboratory for tumor cell diagnosis has as its primary purpose the evaluation of the effectiveness of the procedure The present report includes the peritoneal and pleural fluids, the sputa, and aspirated bronchial secretions for the years 1946 through 1948

Materials and Methods

The examination of peritoneal and pleural fluids was made on sectioned sediments prepared and stained like tissue sections When sputa and bronchial fluids were first submitted, familiarity with this method encouraged us to make similar preparations All fluids and secretions were fixed in 10 per cent formaldehyde in approximately 1 part formaldehyde to 5 parts fluid It was requested that the fixative be added immediately after the specimen was obtained either on the ward or at the clinician's office or, if this could not be conveniently done, that the specimen be sent to the laboratory as soon as possible after it was obtained Immediate fixation is a most important step in the preparation of the specimen The fluids usually stood overnight in 10 per cent formaldehyde, during which time a coagulum may have formed After fixation, the supernatant was decanted and 95 per cent alcohol added to aid in holding the coagulum together and making the specimen easier to handle This mixture was centrifuged and the alcohol decanted The coagulum was run through the same process as a surgical specimen, that is, dehydrated, embedded in paraffin, cut, and stained with hematoxylin-eosin If no coagulum was formed after fixation, the specimen was centrifuged and the supernatant decanted Then 95 per cent alcohol was added to the sediment, and it was centrifuged again The alcohol was decanted, and the material remaining in the centrifuge tube was treated as above In our experience, the advantage of this sectioned sediment method is primarily in preserving clumps of cells and cells in their original acinar or papillary arrangement In a few cases special stains for mucus and melanin were added As a rule, one section was prepared from each specimen

The interpretation of the slides was made by one of four different pathologists who read the routine surgical sections during this three-year period Usually, suspicious or positive slides were studied by two or more of the pathologists in the laboratory The final decision was reached before the clinical history was obtained Unless the slide was obviously positive for tumor cells, a systematic search with the low power lens was made for a period of five to ten minutes Concentration on cellular aggregates rather than single cells was emphasized in the microscopic study

Criteria for Diagnosis of Cancer Cells

In general, the criteria used for the recognition of tumor cells in body fluids and secretions are identical with those pathologists are familiar with in their histologic study of tumor cells These criteria are primarily nuclear alterations and, it should be emphasized, are best assessed when the cells are found in clumps and aggregates They include variation in size and shape of nuclei and in nuclear hyperchromatism, either as a dense solid mass of chromatin or as coarse chromatin granules Giant, bizarre, hyperchromatic nuclei are very significant Increased size and multiplicity of nucleoli are at times helpful Increased nuclear-cytoplasmic ratio is characteristic of cancer cells but at times difficult to assess Mitotic figures are of little practical importance, since they are not commonly seen, and, when found, cancer cells are so numerous that the diagnosis is obvious immediately for other reasons An interesting diagnostic criterion in sputa, and especially in bronchial secretions, is the finding of masses of small cells with scanty cytoplasm, uniform size, distinct hyperchromatism, and irregularity in size and shape of nuclei These cells at first glance have the appearance of lymphoid elements, but in our experience have been characteristically small-cell, undifferentiated bronchogenic carcinoma

In pleural and abdominal fluids from patients with a chronic effusion in heart or hepatic disease, mesothelial cells have sometimes caused confusion These cells may appear as giant hyper-

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dominance" which are characterized by fibrosis of the interstitial lung tissue without marked nodular fibrosis [16] The authors stress the point that these findings may be the only demonstrable lung changes, even in the terminal stages Zur Williams also mentioned that besides the typical nodulation "linear fibrosis" may be observed [17] Johnstone considered the silicotic nodules pathognomonic but pointed out that these nodules may be infrequent or absent, even in the late stages [18] Policard warned against the general tendency to exaggerate the diagnostic importance of the nodular fibrosis, and he did not subscribe to the definition of silicosis agreed upon by the Johannesburg Conference, which declared the fibrotic nodule a criterion for the histologic diagnosis of silicosis [2]

The silica content of the lung tissue from the present case was extremely high Sweany "has never seen a specimen just like it "[19] Only very few cases of similar or higher values were reported in the literature The lungs in Hackmann's Case 9 contained 8 46 per cent silicon dioxide, Case 25, 6 63 per cent, and Case 32, 6 52 per cent [10] Fowweather reported one case with 6 25 per cent silica [20] King examined several specimens of lung tissue and found values of 63 mg , 60 mg , and 123 55 mg of silica per Gm of dried lung tissue, but no clinical or histologic data were given [21] McNally asked that in all autopsies a chemical analysis of the lungs should be performed if the deceased had a history of prolonged exposure to fine dust [22] On the other hand, Gardner and Redlin point out that the routine chemical analysis of the lungs yields only the amount of total silica, which is unimportant, since only the free silica is pathogenic and silicates are harmless [23] A high silica content, therefore, does not mean that the patient has silicosis if the histologic changes do not bear out this diagnosis In our case, the analysis of the sand showed that the patient was exposed to a high concentration of free silica

Obstruction of the pulmonary vascular system was described by Kettle, Matz, and Sweany *et al* [24 5 6] All 23 cases reported by Matz showed marked cardiac hypertrophy and dilatation caused by gradual obstruction of the pulmonary circulation [6] According to Kettle, the greatest danger for cases of simple uncomplicated silicosis lies in cardiac failure due to obstruction of the pulmonary arterioles [4] Sutherland, Strachan, and Simson, however, do not believe that the pulmonary endarteritis is an essential feature of silicosis, and they have never observed cardiac hypertrophy caused by silicosis [1]

Summary

An unusual case of anthracosilicosis in a forty nine-year-old molder has been described with complete autopsy findings, The exposure to fine dust exceeded twenty years The lungs presented a picture of an extensive patchy organizing pneumonia with considerable linear fibrosis. Only a few small subpleural fibrous nodules were present The chemical analysis showed 6 14 per cent silicon dioxide of dried lung tissue The unusual features of this case were discussed and compared with similar observations in the literature The importance of the chemical analysis of the lung tissue in definite and doubtful cases of silicosis was stressed

I am grateful to Henry C Sweany M D , Municipal Tuberculosis Sanitarium Chicago for the chemical analysis of the lung tissue to C M Blumenfeld, M D Cleveland for the microincineration and to Mr E J Kunde Cleveland for the analysis of the foundry sand

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ers are considered (Table 1) No false positive puta diagnoses were made

BRONCHIAL ASPIRATION —Forty bronchial und specimens from 36 cases were observed hese 36 cases included 13 with histologically roved bronchogenic cancer and five with clinical r x-ray-suspicious cancer The remaining non-eoplastic cases included bronchiectasis, chronic ronchitis, asthma, tuberculosis, lung abscess, npyema, congestive heart failure, etc , as in the puta cases Seven cases with seven positive ronchial secretions were observed Of these even positive secretions, six came from histologally proved cancers, one came from a clinically nd x-ray-diagnosed case of bronchogenic cancer hus, 38.8 per cent (7/18) of both the clinically uspicious and proved bronchogenic cancers were ositively diagnosed by bronchial aspiration, 1 per cent (6/13) of histologically proved cans were positively diagnosed (Table 1)

No false positive bronchial aspirations were reorted

In an attempt to evaluate the effect of the poion of the bronchial cancer on the fluid diagno, 32 sputa and bronchial fluids from proved ases in which bronchoscopy had been done were available Eleven of 19 fluids were positive when the bronchoscopist visualized the tumor, while only three of 13 fluids were positive when the tumor was not visualized

Comment

Comparing the present results with those reported in the literature is difficult for two reasons First, our material was sectioned, while most reports are based on smears Second, the reported results with the exception of those of Liebow *et al* are calculated on a patient or case basis [1] The number of slides or specimens examined per patient has varied from one up to 24 (Herbut and Clerf examined six to 24 slides per patient) [3] It seems to us that reporting results on a case basis leads to difficulty in evaluating the accuracy of different studies unless the number of slides per patient are similar

Becker and Shaver in their study found no false positives [4] They did not analyze the pleural and peritoneal fluids separately but reported 18 positives out of 34 cases with serosal carcinomatosis (52 9 per cent) Combining our two groups, we find 18 out of 33, or 54 5 per cent, positive in cases with serosal carcinomatosis

Papanicolaou, working with sputum smears, reported 18 positive diagnoses out of 27 cases of histologically proved bronchogenic cancer, or 66 per cent positive, 70 per cent positive diagnoses were made in 31 cases of both clinical and histologically proved bronchogenic cancer [2] Liebow *et al* report 42 8 per cent positive sputa smear diagnoses per case (three and two-tenths, average number of slides per patient), while only 15 8 per cent positive sputa diagnoses per slide [1] Wandall, using sputa smears, found 84 per cent positive cases out of 100 cases of proved bronchogenic carcinoma [5]

Herbut and Clerf, studying five to 24 smears per case of aspirated, smeared bronchial fluid, report 47 positives of 57 cases of clinical and histologic bronchogenic cancer, or 82 per cent positives [3] It is difficult to assess Herbut and Clerf's report, since no mention is made of false positives, and it would appear that they made no attempt to evaluate the method on both positive and negative patients McKay and Ware report 74 per cent (40/54) positive bronchial fluid smear diagnoses (per case) using an average of four and one-tenth slides per case [6] Liebow *et al* found 30 per cent (9/30) positive bronchial fluid smears, using one slide per patient [1]

In our study, approximately twice as many positives were obtained in bronchial fluid as compared to sputum A similar ratio was found by Liebow *et al*, while Woolner reported no advantage of bronchial aspiration over sputum [1,7,8]

In most surgical pathology laboratories a positive tissue diagnosis of cancer closely approaches 100 per cent accuracy A false positive histologic diagnosis of cancer is a very serious error for any conscientious pathologist It is then rather amazing to read of the number of false positive sputa and bronchial secretions reported in the literature McKay and Ware gave three false positives out of 116 negative cases, or 2 6 per cent, Liebow *et al* report three false positive sputa out of 59 negative cases, or 4 8 per cent [1,6] Wandall's false positives amount to six out of 66 negative cases, or 9 1 per cent [5] Woolner found three false positives in a series of 150 sputa and bronchial fluids [7,8] Papanicolaou had no false positive sputa diagnoses, and his attitude toward false positive diagnoses is worth repeating "Failure to detect malignant cells in a smear is in a way excusable, but the wrong interpretation of findings is apt to be severely criticized and to cause serious doubt as to the accuracy and dependability of the test" [2] The attitude in this laboratory has always been that specificity should not be sacrificed for sensitivity In our study a diagnosis of cancer cells in a fluid or secretion is highly accurate A single negative report is of no diagnostic importance Only when repeatedly negative fluids or secretions are found in a given case can any significance be attached

Summary

1 Pleural and abdominal fluid, sputa, and aspirated bronchial secretions observed in this

arrangement Evidence of phagocytosis and uniformity in nuclear size and the nuclear-cytoplasmic ratio usually indicate their true character

We feel, and conservative observers emphasize, that the positive diagnoses should rest upon the finding of groups of many frankly cancerous cells Thus, Liebow, Lindskog and Bloomer say, "Reliance was placed only upon groups of cells possessing an arrangement suggesting that of tissue, not merely upon individual atypical cells "[1] Similarly, Papanicolaou states that the diagnosis should be "based on a strong substantive evidence offered by pathognomonic cells and cell groups," and that "one should refrain from reaching a final conclusion on the strength of only a few cells "[2]

Lastly, with the section method which better preserves exfoliated cancerous fragments, the diagnosis not infrequently can be made on a truly histologic basis Papillary and acinar masses of atypical cells can be diagnosed at a glance as malignant

TABLE 1 —NUMBER OF POSITIVE TUMOR CELL DIAGNOSES OBTAINED FROM EXAMINATION OF BODY FLUIDS AND SECTIONS

	Positive	
	Per Case	Per Fluid
Pleural fluid		
Clinical and histologic pleural carcinomatosis	74% (17/23)	71 4% (25/35)
Histologically proved pleural carcinomatosis	50% (6/12)	44% (8/18)
False positive reports	0%	0%
Abdominal fluid		
Clinical and histologic peritoneal carcinomatosis	64% (16/25)	64% (19/30)
Histologically proved carcinomatosis	57% (12/21)	57% (15/26)
False positive reports	0%	0%
Sputum		
Clinical and histologic bronchogenic carcinoma	20% (5/25)	14 7% (5/34)
Histologically proved bronchogenic carcinoma only	33 3% (5/15)	21 7% (5/23)
False positive reports	0%	0%
Bronchial aspiration		
Clinical and histologic bronchogenic carcinoma	38.8% (7/18)	31.8% (7/22)
Histologically proved bronchogenic carcinoma	46% (6/13)	37 5% (6/16)
False positive reports	0%	0%

Observations

PLEURAL FLUIDS —There was a total of 95 fluids submitted from 72 different cases Twenty-five fluids in 17 different patients were reported positive Of these 17 patients, cancer was proved by tissue biopsy usually of the primary tumor in 15 cases In two others there was strong clinical or x-ray evidence of a primary cancer Proof of pleural involvement such as pleural biopsy, surgical exploration, or postmortem examination was available in six of the 17 positive cases, while similar proof of pleural involvement was obtained in six cases reported as negative Thus, out of 23 cases with histologically and clinically probable carcinomatosis of the pleura, a positive diagnosis was made in 17, or 74 per cent (Table 1) Of 12 cases in which carcinomatosis of the pleura was proved, either at surgery, postmortem, or biopsy, six (50 per cent) were diagnosed from the fluid examined The same results, computed per slide rather than per case, showed a total of 25 positive slides out of a possible 35, or 71 per cent The primary cancer site of these positive fluids was known to be the lung in seven, the breast in four, the ovary in three, primary mesothelioma in one, and unknown in one case No false positive pleural fluid was reported

ABDOMINAL FLUIDS —A total of 91 fluids were examined from 72 cases Nineteen fluids from 16 cases were reported positive Of the 16 positive cases, 12 had surgical or postmortem proof of carcinomatosis of the peritoneum, three had a proved histologic cancer and clinical carcinomatous effusion, and one case diagnosed on clinical and x-ray grounds died without autopsy

Eleven fluids from nine cases with postmortem or surgically proved peritoneal carcinomatosis were reported negative

Of the clinical and histologically proved carcinomatosis, 16 out of 25 cases (64 per cent), were diagnosed from the peritoneal fluid (Table 1) If only postmortem or surgical biopsy proved cases of carcinomatosis are considered, 12 out of 21 cases, or 57 per cent, were positive When calculated per fluid rather than per case, the percentages are 64 (19/30) and 57 (15/26), respectively No false positive reports were rendered

The primary site in the 16 positive cases included seven ovary, two stomach, two pancreas, two gastrointestinal tract, unspecified, one primary mesothelioma, one gallbladder, and one cervix

SPUTUM —Sixty-one sputa from 43 cases were examined Of these 43 cases, 15 were histologically proved cancer of the lung, ten cases were x-ray on clinically suspicious bronchogenic cancers In the remaining cases, various nonmalignant pulmonary diseases were diagnosed Cancer cells were found in five cases, two cases had sputa reported as suspicious The five positive cases, as well as the two suspicious, were all histologically proved bronchogenic cancers The percentage of positives calculated on the basis of both the histologically proved and clinically suspicious cases is 20 (5/25) and, on the basis of only the histologically proved cancers, 33 3 per cent (5/15) On a "per slide" basis, 14 7 per cent (5/34) of the clinical and histologically proved bronchogenic cancers were positive while 21 7 per cent (5/23) were positive when only histologically proved can-

NEEDLE BIOPSY OF THE LIVER IN ALCOHOLIC PATIENTS

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THE problem of the relationship of alcoholism to hepatic lesions is a perennial one Originally, discussion of this problem was restricted to clinical and postmortem findings Added information was later furnished by the introduction of hepatic function tests Lately needle biopsies of the liver have been employed to supply further data on the problem In this respect may be cited several recent publications [1-4]

Material and Methods

We report on 87 needle biopsies of the liver in 80 alcoholic patients By such patients we mean those who were admitted to the alcoholic and psychiatric services, nearly always in acute intoxication and occasionally at the end of a spree, through their own request or by order of the police Ages of the patients ranged from twenty-four to sixty-eight years There were 74 men and six women All patients were chronic, steady, or intermittent drinkers for months to years Forty-five patients had multiple admissions (two to six times) to our hospital for alcoholism It was difficult to get detailed histories of diet, but we could be sure that many patients before admission to the hospital had lived on deficient diets Our biopsies did not constitute a series from consecutive patients, however, patients were not selected specifically for biopsy, although a number were likely chosen by resident physicians because some evidence suggested hepatic disease

To obtain biopsy specimens, we used the Vim-Silverman needle through subcostal or intercostal approach [5] In 62 patients, the liver was palpable below the costal margin Original biopsies were made one to sixty-three days after admission Thirty-eight were made within one week after admission, three were over three weeks after admission After immediate fixation in 10 per cent formaldehyde, biopsy specimens were sectioned by the paraffin method and stained with hematoxylin-eosin Prussian blue reaction was applied to 77 specimens of 72 patients Results for iron-containing pigment were graded as follows Class I—little or no iron pigment, Class II—slight amount of iron pigment, Class III—moderate to distinct amount, and Class IV—marked amount

Concurrently with needle biopsy, we tried to carry out a battery of hepatic function tests on each patient These tests, with abnormal ranges set by us included Van den Bergh test (between 0 5 and 1 mg and over 1 mg per 100 cc), alkaline phosphatase (between 4 and 10 Bodansky units and over 10 units), bromsulfalein test, 5 mg dose (over 10 per cent retention after one hour), serum albumin determination (below 3 5 Gm per 100 cc), albumin-globulin ratio (less than 1), prothrombin level (less than 70 per cent) forty-eight-hour cephalin flocculation, formol gel, colloidal gold and thymol turbidity tests (over 2 plus), hippuric acid synthesis, intravenous (less than 0 7 Gm), and hemoglobin determination (less than 70 per cent) No information in regard to clinical findings or results of function tests was given the pathologist before he completed his microscopic report Each biopsy was described independently by two pathologists

Results

In 80 patients microscopic reports on the original needle biopsy fell in these general groups preserved ("normal") liver, 13 cases, fatty liver, 36 cases, marked fatty liver with cirrhosis, seven cases, portal cirrhosis, 20 cases, unsatisfactory or unclassified, four cases

Preserved ("Normal") Liver (13 Cases) — The patients ranged in age from twenty-eight to sixty-two years with an average age of forty-five years All patients were men Eight showed palpable livers Biopsies were made from two to twenty-one days after admission, the average period was nine days, seven biopsies were made within one week after admission The total number of hepatic function tests was 98 Of these, ten gave abnormal results, all of which were in the borderline range except three Iron pigment was graded Class I, ten cases, and Class II, two cases

Fatty Liver (36 Cases) —In this group the hepatic changes were analyzed as follows slight fatty change, 15 cases, moderate, 13 cases, marked, eight cases

* By invitation

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laboratory for a three-year period and studied by the sectioned sediment method are analyzed

2 Clinical and histologically proved carcinomatous pleural or ascitic effusions have been diagnosed positive by this method with an accuracy of approximately 60 to 75 per cent

3 Sputum diagnosis in histologically proved bronchogenic cancer was positive in 33 3 per cent of the cases

4 Bronchial secretion diagnosis in histologically proved bronchogenic cancer was positive in 46 per cent of the cases

5 No false positive reports were encountered in 287 body fluids and secretions obtained from 223 patients

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Slight fatty change (15 Cases) —The patients ranged from thirty-six to fifty-nine years with an average age of fifty-three years There were 14 men and one woman Positive physical findings included palpable liver 12, atrophy of tongue four, spider nevi two, palpable spleen one, edema one, and fever one Biopsies were made two to eighteen days after admission, the average period was seven days, eleven biopsies were made within one week after admission The total number of hepatic function tests was 135 Of these, 20 tests gave abnormal results, of which nine were beyond borderline range Iron pigment was graded Class I, ten cases, Class II, four, Class III, one case

Moderate fatty change (13 Cases) —The patients ranged from thirty-one to sixty-eight years with an average age of forty-seven years All patients were men Positive physical findings included palpable liver ten, atrophy of tongue five, edema four, and fever one Biopsies were made one to fifteen days after admission, the average period was eight days, eight biopsies were made within one week after admission The total number of hepatic function tests was 106 Of these, 28 tests gave abnormal results, of which 15 were beyond the borderline range Iron pigment was graded Class I, ten cases, and Class II, three cases

Marked fatty change (8 Cases) —The patients ranged from forty-one to sixty-two years with an average age of forty-nine years Seven patients were men, one patient was a woman Positive physical findings included palpable liver seven, edema one, and atrophy of tongue one Biopsies were made one to thirteen days after admission, the average period was five days, seven biopsies were made within one week after admission The total number of hepatic function tests was 69 Of these 13 tests gave abnormal results, of which six were beyond the borderline range Iron pigment was graded Class I, eight cases

Marked Fatty Liver with Cirrhosis (7 Cases) —The patients ranged from twenty-four to sixty-six years with an average age of forty-six years Five patients were men, two were women Positive physical findings included palpable liver seven, spider nevi two, atrophy of tongue two, palpable spleen one, jaundice one, and edema one Biopsies were made two to twenty days after admission, the average period was ten days, three biopsies were made within one week after admission The total number of hepatic function tests was 62 Of these 31 tests gave abnormal results, of which 23 were beyond borderline range Iron pigment was graded Class I, two cases, Class II, two, Class III, one case

Portal Cirrhosis (20 Cases) —In this group the hepatic changes were analyzed cirrhosis with fat, seven cases, cirrhosis without fat, ten cases, cirrhosis with definite jaundice, two cases, cirrhosis with marked iron pigment one case The patients ranged from thirty-four to sixty-seven years with an average age of fifty years Eighteen patients were men, two were women Positive physical findings included palpable liver, 18, jaundice, nine, edema, nine, ascites, six, fever, four, spider nevi, three, palpable spleen, two, atrophy of tongue, two and neuritis one On clinical grounds eight cases of cirrhosis were judged to be "compensated" and 12 cases "decompensated" The total number of hepatic function tests was 173 Of these, 90 tests gave abnormal results, of which 72 were beyond borderline range Iron pigment was graded Class I, 12 cases, Class II, four Class III, two, Class IV, one case

In the groups designated as "fatty liver" and "cirrhosis" there were varying degrees of regressive parenchymal change, interstitial inflammation, fibrosis, iron-free pigmentation and regeneration

Comment

In discussing the problem of the relationship of alcoholism to hepatic lesions, we face these questions Do hepatic lesions occur with any frequency in alcoholic patients, and, if they do what are their pattern and cause? How may the hepatic lesions best be detected intravitam?

In answer to the first question, our study disclosed 63 of 76 alcoholic patients with hepatic lesions from slight fatty change to advanced portal cirrhosis These statistics may have to be qualified by the number of patients, the method of their selection for biopsy, and the interval from admission to biopsy Fatty liver is noted by other authors in needle biopsy and at autopsy as a frequent condition in acutely intoxicated patients [2,3,6] That portal cirrhosis occurs with a somewhat greater incidence among chronic alcoholics than among teetotalers has also been reported [6]

The biopsies in our patients could be arranged in a progression from slight fatty change through marked fatty change to portal cirrhosis which closely follows the development of portal cirrhosis seen in experimental animals and theorized for human beings In certain experiments, portal cirrhosis stems from fatty liver of sufficient degree and duration [6] Connor postulates three stages for Laennec's cirrhosis in human beings (1) fatty liver, (2) fatty liver with fibrosis (early fat cirrhosis), and (3)

cirrhosis with little or no fat [7 8] Fatty change and cirrhosis of the liver in alcoholic patients is complicated sometimes by acute or recurring hepatitis [9]

Because alcohol itself generally fails to produce cirrhosis experimentally and because a deficient diet generally succeeds, the consensus of opinion today is that fatty change and cirrhosis of the liver in alcoholic patients is brought about primarily by influence of nutritional deficiency which accompanies alcoholism rather than by sole direct effect of the alcohol [6] In our patients, histories of poor dietary intake for food elements and vitamins were consistently elicited Some authors still ascribe a basic role to alcohol itself in the pathogenesis of fatty liver and cirrhosis [7 8 10]

Why biopsies in 13 of our patients revealed no hepatic lesions remains a matter for speculation On the average, factors in these patients such as acute chronic alcoholism, dietary deficiency, and interval from admission to biopsy coincided with those in patients with abnormal biopsies In any of our patients we cannot exclude the possibility of alleviation of hepatic lesions through abstinence from alcohol, bed rest, and treatment with diet and other measures in the interval between admission to the hospital and biopsy

Answering the question, how may hepatic lesions in the alcoholic patient best be detected intravitam, we will consider the three diagnostic methods used in our study—clinical examination, hepatic function tests, and needle biopsy

Clinical examination was of limited value in detecting, with any regularity and precision, the extent or type of hepatic lesions Indeed, although we reviewed the clinical impressions of hepatic involvement charted on admission of our patients, we have not listed them in our results, nor have we attempted to correlate them with biopsy findings, for we feel that, except in the group of decompensated cirrhosis, such impressions were essentially guesses between fatty liver and Laennec's cirrhosis, based on the presence of a palpable liver in an alcoholic patient It is easy to see, therefore, why clinical examination was of limited value in detecting hepatic lesions The physician usually depended upon a palpable liver for his fundamental diagnostic criterion Hepatic lesions existed regardless of whether the liver was palpable In eight of 13 livers, described histologically "normal," the organ was palpable On the other hand, among 63 patients with hepatic lesions from slight fatty change to cirrhosis, the liver was not palpable in nine (two apparently atrophic cirrhosis) Fewer livers were "not palpable" in marked fatty change and in cirrhosis than in slight to moderate fatty change

Even with a palpable liver clinical distinction between fatty liver and cirrhosis was difficult Physical findings like palpable spleen, jaundice, ascites, spider nevi, and edema, especially when in combination, were associated, for the most part, with the palpable liver of cirrhosis, but certain cirrhotic patients were clinically compensated Further, some of the aforementioned findings are reported to occur in patients without advanced cirrhosis Such physical findings may denote hepatic functional insufficiency and need not necessarily mean irreversible cirrhotic changes

Although hepatic functions tests were more revealing of hepatic lesions than clinical examination, they also possessed definite limitations Results of function tests correlated fairly well with histologic findings in the group of livers we described "normal" In this group 10 per cent of the tests gave abnormal results, with three of ten results beyond the borderline range In the group with slight to marked fatty liver, 20 per cent of the tests gave abnormal results, of which 50 per cent were beyond the borderline range

In the group of livers with marked fatty change-cirrhosis and advanced portal cirrhosis, 50 per cent of the tests gave abnormal results, of which 74 to 80 per cent were beyond the borderline range From a functional standpoint marked fatty liver with cirrhosis came closer to advanced portal cirrhosis than to marked fatty liver without fibrosis In advanced portal cirrhosis, the compensated livers made up 40 per cent of the group and supplied 25 per cent of abnormal tests, of which 67 per cent gave results beyond borderline range The decompensated livers, composing 60 per cent of the group, supplied 75 per cent of abnormal tests, of which 83 per cent gave results beyond borderline range Combinations of tests were more dependable than single tests, since in many cases only certain tests were abnormal The more severe the hepatic lesions, the more frequent was the incidence of multiple positive tests per individual patient Lack of absolute correlation between function tests and hepatic lesions is well known and has been explained by reserve and regenerative power of liver, by the numerous independent hepatic functions, and by the type of lesions [11 12]

In fatty liver, cephalin flocculation and formol gel gests, hippuric acid synthesis, and bromsulfalein test furnished positive results more consistently than other tests In marked

fatty liver with cirrhosis and in advanced portal cirrhosis the most reliable tests were Van den Bergh, bromsulfalein, cephalin flocculation, and formol gel tests. Of less reliability were serum albumin determination, albumin-globulin ratio, prothrombin level, colloidal gold and thymol turbidity tests, and hippuric acid synthesis. Serum albumin slightly outranked the albumin-globulin ratio in number of abnormal results. Colloidal gold and thymol turbidity tests were positive only in the cirrhotic group. Alkaline phosphatase tended to exceed 10 units as jaundice increased.

In view of the diagnostic limitations of clinical examination and functions tests in our study, we feel that needle biopsy is the only method for detecting hepatic lesions in the alcoholic patient with regularity and precision. Needle biopsy demonstrates not only the type but also the degree of hepatic involvement. Thus, it offers valuable and challenging information for the treatment and prognosis. As Himsworth remarks, "The seriousness of hepatic disease in alcoholic patients is often not clinically obvious until the last stages. Puncture biopsy by allowing its appreciation at an earlier stage may enable a decisive influence to be brought to bear upon many members of the group while their illness is still curable." To certain objections against needle biopsy of the liver as a diagnostic procedure, we can make these comments. In our series of 80 alcoholic patients we encountered no serious complication from needle puncture. (Hazards reported in the literature comprise hemorrhage, infection, and perforation of viscus.) The objection that findings in a thin needle biopsy may not represent those in other parts of the liver does not hold in alcoholic patients because fatty liver and portal cirrhosis are diffuse processes. With a cooperative patient, experienced operator, and an adept technician, the number of unsatisfactory specimens should reach a minimum.

Prognostically, with repeated needle biopsy one can follow hepatic lesions in response to therapy or in progress under continued alcoholism. On these points our study presented no conclusive data. In biopsy of one moderate fatty liver five weeks after the first biopsy, the amount of fat was unchanged. Among three cirrhotic livers with biopsies three and one-half, four and one-half, and seven weeks after the first, two showed some decrease in fat, the cirrhosis was unaltered. Two patients with slight and moderate fatty liver and one patient with cirrhosis had readmissions for alcoholism twenty-two weeks, thirteen months, and one year, respectively, after the first biopsy when second specimens contained same amount of fat. Five of our patients died in the hospital, four in the cirrhotic group (ruptured esophageal varices, two, acute jaundice, one, tuberculous peritonitis and hematogenous tuberculosis, one), one with moderate fatty liver (lobar pneumonia). Two postmortem examinations of the liver confirmed the biopsy diagnosis of cirrhosis.

Of 12 "normal" livers stained for iron pigment, only two showed more than minimal amount. The cirrhotic livers had the greatest number with large quantities of iron pigment. In general, pigment in slight and moderate amount was distributed in parenchymal cells as fine blue granules. With increasing amounts, pigment became more prominent as denser aggregates in parenchymal cells and also in Kupfer cells, portobiliary spaces, and fibrous tissue between nodules. Iron pigment appeared first and most strikingly in peripheral zones. In two cirrhotic livers the iron pigmentation was of such degree that one was labeled "pigment cirrhosis" and the other was considered in relation to this entity. Repeated needle biopsy of the liver may prove a new method to study the pathogenesis of pigment cirrhosis and hemochromatosis. Gillman and Gillman, from their observations on the fatty liver of adult pellagrins, state that "the siderosis represents a profound disturbance in intracellular metabolism" and "is a good indicator of the chronicity of the malnutrition."[13,14] Besides iron pigment and bile pigment we saw an iron-free pigment which in certain sections was as apparent as the iron pigment. Similar pigment has been described by Gillman and Gillman.[13,14]

Summary

Needle biopsies of the liver were made on 80 alcoholic patients, nearly all of whom were in a state of acute intoxication on admission to the hospital. The hepatic findings fell into the following groups: Preserved ("normal") liver, fatty liver, fatty liver with cirrhosis, and portal cirrhosis. A correlation was attempted between the histologic picture in the various groups and the available function tests in each case. Seven patients had repeat biopsies. Stain for the presence of iron-containing pigment was done on 77 specimens of 72 patients.

We are indebted to Mrs. Victoria Coppola and Miss Dorothy Antkowiak for technical assistance.

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Discussion

K. L Terplan, M D , *Buffalo* —To all of us who are called upon to give a diagnosis on minute particles of liver tissue obtained through a needle, the findings presented by Dr Sanes are impressive I believe Dr Sanes and his associates should be congratulated on the work accomplished, in which the corroboration of clinical data, including various liver function tests pointing to liver damage, by certain microscopic structural changes, is, perhaps, the most informative one, for we all know the limitations inherent in interpreting fatty changes in the liver, in general, and in these so-called "minute liver slivers, in particular It is fortunate that the material obtained by needle biopsy is taken from the lateral portions of the liver Here focal accumulation of fat involving numerous liver cells is usually not observed in otherwise not fatty livers This peculiar focal fatty change is, not uncommonly, close to the falciform ligament Whether or not slight or moderate fatty change in the biopsy material is reflecting actual liver damage might sometimes be difficult to state, but it is especially in these cases of chronic alcoholics in which any future information as to the progression of liver disease to cirrhosis and fatal outcome on the one hand, or possible recovery on the other hand, might be of great value The minute size of the material obtained by needle biopsy is, in itself, prohibitive of complete histologic analysis, including, in particular, various staining methods for fat Perhaps, in some instances, gelatin imbedding of the material could be tried for fat stains

From various reports in the literature, including extensive studies on postmortem material, it seems to be realized more and more that there is no diffuse storage of fat in otherwise normal livers The diffuse fatty changes (steatosis) seen in some chronic alcoholics is possibly reflecting similar nutritional deficiencies as those observed in some chronic infectious diseases as, for instance, tuberculosis

If I might digress from Dr Sanes's findings in chronic alcoholic patients for a moment, we found the needle biopsy very informative and a reliable diagnostic method in numerous instances of liver disease, especially in the differential diagnosis of icterus The diffuse hepatocellular damage, collapse of liver cells with ectasia of capillaries (red atrophy) on the one hand, and numerous bile thrombi within the not too impressively damaged liver cells on the other hand—these findings proved to be very reliable for the differential diagnosis of hepatitis and toxic dystrophy and obstructive jaundice The so-called inflammatory element might be just as conspicuous in acute and subacute dystrophic liver damage as in ascending cholongitis

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FEWER PHYSICIANS GRADUATED IN 1949

The American Medical Association reported recently that the 1949 class of physicians was the smallest graduated in ten years, but that the incoming crop of freshman this fall is expected to be the largest on record The A.M A., making its annual report on medical education in the United States and Canada, said that 5,094 physicians were graduated in this country in June, compared with 5,543 the previous year The small number of graduates was attributed to the fact that the graduates started training in the last year of the war, when medical students were not granted deferment under selective service

However, the A.M A. said the expected enrollment of freshmen in American medical schools this fall is 6,900, the largest on record Last year's freshmen totaled 6,688

Of this year's graduates, 612 were women, the largest number in history The previous record was 392 in 1948 Canadian schools, the A.M A said, graduated 679 physicians this year, compared with 632 in 1948

THE TOXICOLOGY LABORATORY AND ITS IMPORTANCE TO THE COMMUNITY

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FACILITIES for toxicologic investigations are inadequate throughout the United States as a whole Although many clinical laboratories are capable of performing a few selected routine determinations such as lead, arsenic, and barbiturates, only a few large centers possess laboratories sufficiently well staffed and equipped to handle full-scale toxicologic investigations It is truly amazing that American pathologists in general have been so disinterested and complacent about lack of access to toxicology laboratories We would not hesitate to state that a pathology service without a competent toxicologist is handicapped as much as any medical or surgical service would be without modern clinical laboratories

The long-recognized need for a toxicology laboratory in Buffalo resulted last year in the creation of a Division of Toxicology within the Department of Pathology of the University of Buffalo School of Medicine Inasmuch as the subject of toxicology is being brought to the fore throughout the country today, we thought that it might be of general interest to relate some of the considerations upon which we based the organization of our toxicology division and also to relate some of our experiences over a period of slightly more than a year since the laboratory began to function

When the establishment of the laboratory became a definite possibility, our primary consideration was to obtain an estimate of the magnitude and scope of the functions it would be required to carry out In order to do this, one of us spent two weeks as an observer in the toxicology department of the chief medical examiner's office in New York City The greatest part of the service of this laboratory consists of handling material submitted by the various medical examiners Because of the magnitude of this material, it represents a good cross section of what demands a toxicology laboratory should be able to meet From these observations we came to the conclusion that, although other laboratories would, of necessity, be operating on a smaller scale in regard to the number of determinations, they would be required to handle an equally extensive variety of problems That these expectations have been confirmed is shown by the fact that, out of a total of 187 cases handled, determinations were made for 27 different substances This means that a toxicology laboratory should serve a relatively large population, our estimate is that approximately one million people is preferable if its function is primarily to investigate cases submitted by hospital pathologists and medical examiners It is our opinion that laboratories established to serve smaller groups of people would have to fill other functions for the sake of economy and thus, in many cases, be forced to compromise on the quality of services available Furthermore, a laboratory needs to be of a certain size to offer opportunities for research We feel this is particularly important, not only because experience has shown that an investigative unit will maintain higher standards if it devotes part of its time to research, but also because there is a definite need for information about almost every branch of the work

The ideal place for a toxicology laboratory is a medical school, primarily because toxicology should be practiced in close cooperation with a teaching department of pathology wherever possible Such close relationship between pathology and toxicology may eventually form a good practical nucleus for the future development of a full-fledged department devoted to the teaching of forensic medicine Our toxicology laboratory is, as already mentioned, a division within the Department of Pathology of the University of Buffalo School of Medicine It serves as the official toxicology laboratory for the county medical examiner's office, and it is also associated with the Crime Detection Laboratory of the Buffalo City Police in a supplementary and advisory capacity Efforts are being made to develop working arrangements with the area hospitals and their pathologic laboratories, and, of course, our services can be engaged by any legitimate practitioner or official body with authority to request toxicologic investigations

It is not particularly difficult to point out the importance of a toxicology laboratory to the community as a whole A point that should be heavily stressed is the importance to the medical profession—general practitioners and specialists alike In spite of a natural distaste on the part of most physicians to testify in court cases, almost every physician in the course of his

* By invitation.

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practice must appear as an expert witness from time to time Many cases, with particular emphasis on those which come principally under the Workmen's Compensation Act, involve effects of exposure to poisonous substances The doctor's expert testimony too often must be based on purely clinical impressions, and we are sure that the doctor himself frequently feels that his testimony is not entirely expert Confirmative laboratory work by a competent toxicologist can supply data upon which the attending physician may base his testimony with greater assurance

We shall present some statistical figures illustrating the type of determinations which the toxicology laboratory has been requested to perform in the period between February 1, 1948, and March 15, 1949, which is a little more than the first year of operation During this period a total of 187 cases were investigated, of which 99 originated in the medical examiner's office These 99 cases represent most of the medical examiner's cases in which the county pathologist was requested to perform an autopsy This is not to be interpreted as suggesting that violent deaths in Buffalo are almost exclusively caused by those following in the footsteps of the famous Borgia, but it does indicate the medical examiner's interest in the state of sobriety of those meeting violent death, because brain and blood alcohol determinations were performed in 63 cases Thirty-five of these tests for alcohol were positive, suggesting the relative frequency with which cases investigated by the medical examiner meet death while under the influence of alcohol Relatively few blood alcohol determinations during life were performed This is not the place to discuss the merits of blood alcohol tests, but one instance may serve to illustrate the usefulness of the test under unusual circumstances

A plaintiff in a Workmen's Compensation action during a final hearing behaved in a manner which suggested severe intoxication, and the court suspended proceedings A blood alcohol determination, performed by the toxicology laboratory immediately after, established the fact that the plaintiff's blood was entirely free of alcohol and that his behavior had been due to illness

During the period under discussion, 21 tests for barbiturates in blood or central nervous tissue were performed, in which 10 tests were found to be positive From a purely clinical standpoint it may not be of major importance which one of the many commercially available brands of barbiturates were involved, but medicolegal considerations at times make it important to identify the actual barbiturate used In two specific cases we cooperated with the Federal Food and Drug Administration by identifying the actual barbiturates used, thus aiding this law enforcement agency in its efforts to check possible illegal distribution channels for barbiturates Complications in the determination of barbiturates arise from the prevailing custom of using combinations of short- and long-acting barbiturates A toxicology laboratory should be prepared to separate such mixtures of barbiturates and should also be able to identify each of the barbiturates available commercially

The laboratory performed 16 tests for carbon monoxide, of which 12 were positive Of course, quantitative tests for carbon monoxide are performed in many laboratories and do not present any special technical difficulties, but it is important to have available easily accessible facilities for quantitative determinations, because carbon monoxide poisoning is common and legal issues may often depend on promptly performed chemical tests For instance, we had a case of a workman who became ill while doing repair work on a chimney He was suspended from a scaffolding at a considerable height and fell to his death before help could reach him The workman was engaged by a contractor performing the repair work and was not employed by the owner of the industrial plant The owner and the contractor carried compensation insurance with two different insurance companies The immediate analysis of the blood of the deceased revealed a large degree of carbon monoxide saturation, and this finding was instrumental in fixing the financial responsibility

During the period mentioned above, we have been called upon to investigate poisoning with mercury, arsenic, and lead We have obtained positive tests for mercury in seven cases, for arsenic in six cases, and for lead in 22 cases Practically all the lead cases have involved action under the Workmen's Compensation Act

Our laboratory has performed quantitative determinations for silica on lung tissue in nine cases It is quite remarkable that, in these nine cases, only two were found to have less than 100 mg of silicon dioxide per 100 Gm of tissue, thus confirming in seven cases the suspicion of the pathologist that the fibrotic state of the lungs was due to silicosis

We have been able to confirm five cases suspected of morphine poisoning and two of atropine poisoning We have also investigated one case of suspected aconitine poisoning, but we were unable to determine the presence of this alkaloid Other cases investigated involved one instance of nitrite poisoning, one of borate poisoning, two iodide and one bromide poisonings In addition, two fatal cases of methyl bromide poisoning may be mentioned, one case involving chloral, one the accidental poisoning with methyl salicylate, and

two other cases of poisoning by ingested salicylates Altogether five tests were performed for cyanide, of which two were positive

Our services were engaged in one case in which a child died as the result of the substitution of pontocaine for procaine for cystoscopic purposes In this case an investigation by the proper authorities indicated all safeguards in the handling of the local anesthetic had been observed and that no mistake could have been made However, our laboratory demonstrated immediately that the solution used contained pontocaine instead of procaine and that the mistake in handling had occurred in spite of all precautions It is unfortunate that such accidents should ever happen, but even the best planned safeguards involving the human element are not infallible, and the services of a competent laboratory can at least aid in clarifying otherwise unexplainable events

It may be interesting to mention just in passing that our laboratory during the period under discussion performed, altogether, 764 individual tests and determinations This number of tests includes a great deal of work in 13 cases of unexplained deaths In these cases no particular reasons were advanced for suspicion of poisoning, and toxicologic work was supplementary to the general pathologic investigations in order to rule out the presence of poisons

We cannot state at present that we have very definite plans for the future development of our toxicology laboratory Unquestionably, the performance during the first year of operation and the general interest evinced by various institutions in our community assure development along lines already established We hope that there will be increasing cooperation between our laboratory and doctors and engineers interested in prevention of poisoning in our industrial plants Such teamwork as we visualize in this respect in the future may very well become an example of preventive medicine at its best

One may perhaps also think of the future on a broader scale than that strictly pertaining to benefits to the local community In particular, we have in mind the steadily expanding need for investigative work on the toxicology of new drugs Federal Food and Drug Laws enacted some years ago have contributed immensely to the safe use of new therapeutic remedies as well as control of potency and purity of drugs The cooperative spirit between the Federal Food and Drug administration and the pharmaceutical industry has contributed to recognized methods for toxicologic investigations, and it is very desirable on the part of government agencies as well as pharmaceutical houses to have independent toxicologic facilities available We feel that cooperative arrangements between toxicology, pathology, and pharmacology departments in medical schools are ideally suit for such purposes

This paper would be incomplete without a word of appreciation of the advice in respect to the operation of a toxicology laboratory extended from the office of the chief medical examiner in New York City The cooperation and help given by Dr Thomas A Gonzales, chief medical examiner, and Dr Alexander O Gettler, city toxicologist, as well as members of their staff, are sincerely appreciated in Buffalo

Summary

We have described briefly some of the preliminary considerations upon which we based the establishment of the Toxicology Division within the Department of Pathology in the University of Buffalo School of Medicine We have also related some of our experiences during a period of slightly more than a year of operation of this new division

Discussion

Samuel Sanes, M D , *Buffalo* —Discussing this paper as pathologist in the Medical Examiner's Office of Erie County, I wish to express gratitude to Dr Klendshoj and Mr Feldstein for the help which they have given us in the solution of our cases, particularly those which were autopsied Toxicologic investigations are indispensable in medicolegal work From the time the toxicology laboratory went into operation until today, we submitted material in 75 per cent of our autopsies for study In 15 to 20 per cent of our autopsies, poisoning was the primary or a chief cause of death Toxicologic information was of great value also in other cases where poison played a contributory or incidental part The toxicology laboratory gives us not only a qualitative report, but also a quantitative analysis, further, it determines the specific agent in a group like the barbiturates Such information is of special importance to us

I should like to cite types of cases with examples in which the medicolegal pathologist depends upon the toxicologic laboratory for help

1 Those cases in which autopsy is negative for organic findings An elderly man is found dead in his hotel room The toxicologist proves morphine in gastric contents and tissue Morphine is also demonstrated in the contents of a bottle picked up by police in the bathroom

2 Those cases in which autopsy shows organic findings for which a cause must be determined An elderly woman with gastrointestinal complaints dies shortly after admission to the hospital in shock before a medical workup There is no definite clinical diagnosis At autopsy, ulcerative gastritis and colitis suggest heavy metal poisoning The toxicologic report is positive for mercury in gastric contents, viscera, and urine Bacteriologic cultures are negative

3 Those cases in which autopsy has to set liability for industrial compensation The case of

carbon monoxide poisoning mentioned is a good example.

4. Those cases in which autopsy presents obvious organic findings to explain the immediate cause of death, but in which toxicologic examination explains behavior of the person before death or circumstances leading to the cause of death. A truck driver is found ill in his cab; he dies later of fractured skull and intracranial injury. Police account for practically all his activities. Blood sample shows an increased carbon monoxide saturation. Investigation of the truck reveals an exhaust pipe communicating with the cab through a defective floor.

5. Those cases such as homicides and hit-and-run accidents in which at autopsy alcohol determinations are obligatory.

6. Those cases in which at autopsy it is desired to complete the chain of evidence for homicide. A mother strangles her two small children allegedly after giving them some sleeping pills. Toxicologic report is positive for a particular member of the barbiturate group, the exact source of which can be traced.

7. Those cases in which public interest is aroused. Two women die within a short time of each other from acute abdominal complaints. Both lived on a city dump. Autopsies disclose no organic findings to explain death. Newspapers and radio stations publicize the cases, even with editorial comment. Are the deaths related? Did the women die of rat poison used by a municipal department on the city dump? Did they die from food poisoning after eating discarded food or from acute food infection? Did they die from methyl alcohol poisoning? Toxicologic examination is positive for methyl alcohol in both women. Various bacteriologic studies are negative.

8. Those cases in which at autopsy it is essential to exclude poisoning. Rumors spread that a person whose death was certified as due to natural causes was really a suicide from poisoning. Autopsy after disinterment confirms the organic cause of death signed on the death certificate. Complete toxicologic examination reveals no poisons in the tissues.

Abraham W. Freireich, M.D., *Malverne*.—The paper by Dr. Klendshoj and Mr. Feldstein presents a somewhat different slant on toxicologic problems from that which we have in Nassau County. One of the big problems that confronts a group seeking to improve their standards of medicolegal investigation

TABLE 1.—MEDICAL EXAMINER'S SYSTEM—NASSAU COUNTY

Year	Number of Cases	Toxicologic Examinations
1938	546	196
1939	559	192
1940	539	150
1941	589	156
1942	626	159
1943	674	159
1944	686	150
1945	611	201
1946	634	186
1947	739	208
1948	738	226
Total	6 937	1 883

TABLE 2.—TOXICOLOGIC WORK, 1948

	Number of Cases Tested	Positive
Volatile poisons		
Alcohol	154	13 (0–0.1%) 24 (0.1–0.2%) 27 (0.25–0.4%) 2 (0.4% and up)
		66
Methyl alcohol	21	
Gaseous poisons—Carbon monoxide	70	57
Barbiturates	8	6
Mercury	1	1
Cyanide	1	1
Arsenic	1	1
Fluorides	1	1
Paraldehyde	3	3
Phosphorus	1	0
Drownings	16	13
General unknown	26	7
Salicylates 1 Fluorides 1 Barbiturates 5		
Total	303	156

is the expense in providing the space and equipment for toxicologic examinations. It is certainly desirable to provide fully equipped laboratories for all types of toxicologic studies as well as for research. However, the greater need at the present time is to improve the caliber of the routine medicolegal investigation. I have in mind the comparative merits of the medical examiner's system over the coroner's system. Our experience in Nassau County may be of interest to you.

On January 1, 1938, there was established a medical examiner's office in Nassau County, replacing the old coroner's system. Dr. Theodore J. Curphey, who was at that time pathologist at Meadowbrook Hospital, was appointed the chief medical examiner. Our office was established at Meadowbrook Hospital, and the existing morgue facilities and autopsy room, as well as the clinical laboratories, were made available to us. With the addition of a modest amount of equipment, we began to perform toxicologic studies as part of the routine investigation of cases coming under the jurisdiction of the medical examiner. Table 1 indicates the number of examinations performed each year from 1938 to 1948, inclusive. It also lists the total number of cases investigated by the medical examiner. Table 2 is a summary of the types of examinations performed in 1948. As can be seen, a total of 303 examinations were done. Almost half of these consisted of determinations for the presence of alcohol in either the brain, blood, or spinal fluid, the greatest portion being in the brain. The breakdown as to the positive cases is indicated. Seventy examinations were done for the presence of carbon monoxide in the blood. A goodly number of these examinations were performed on bloods removed from a cadaver by means of a large needle inserted directly into the heart, eliminating the necessity for a complete autopsy. This was done when the evidence at the scene and the external examination of the body gave good presumptive evidence that carbon monoxide

was the cause of death The remainder of the examinations consisted of a small number of tests for barbiturates, mercury, cyanide, arsenic, fluorides, paraldehyde, and phosphorus and for drownings The classification, "General Unknown," is made on those cases where the autopsy fails to reveal an adequate cause of death and in which poison may have been the factor but no definite lead as to the specific poison is obtained In this category, of course, a *larger number of tests has to be performed* Of the 25 cases, seven resulted in the finding of a poison sufficient in quantity to be considered the cause of death Five of these were barbiturates, one salicylates, and one fluoride

My purpose in presenting these facts is to emphasize that the major portion of work that a toxicologic laboratory may be called upon to perform consists of the more easily determined substances and for which no very elaborate equipment is necessary It is true that one would prefer to have such apparatus as spectrographs, spectrophotometers, and possibly other physical equipment which makes exact analysis of poisons more easily determined, but the expense of such equipment and the comparatively small number of uses such equipment would have in a small community makes them a luxury which most of us cannot afford Our experience in a county of roughly 500,000 population has been such that we have been able to perform with a reasonable amount of adequacy the requests for aid to the pathologist and to the medical examiner's office and to the district attorney's office in their investigations.

The problem, to my mind, is more that of training sufficient personnel to take over the duties of *toxicologic examinations rather than that of* physical equipment An individual trained in the science of toxicology will have the judgment to decide when he can rely on the results of the tests performed with his equipment and when he has to seek further aid

To that end there can be established a few centers throughout the State, like the one in New York City, with the finer equipment for more exact determinations which will be available to all the jurisdictions in their area.

In summary I wish to stress that the problem of personnel is greater than that of physical equipment, that duplication of infrequently used expensive equipment is not necessary, and, finally, a suggestion has been made as to how that can be done.

EMBALMING

It will certainly surprise most people to know that the number of subjects prepared for burial by embalming has increased in Great Britain from almost zero to one-fifth of the death rate in the past fifteen years The advantages of the practice are first as a hygienic method of dealing with the body awaiting disposal, especially if delay is necessary or anticipated, and then in its psychologic effect on the bereaved and the simplification made possible in the funeral arrangements The embalmer is concerned with appearance equally as much as with sterilization, and the technics include closing of the eyes and mouth, hairdressing, shaving, positioning, dressing, and "make-up" One result is that the deceased person can be left as though peacefully sleeping in bed until the actual time of the funeral, with the resultant avoidance of "all the gruesome accoutrements of the death chamber" An obvious incidence of the value of embalming is a death at sea in which it is desired for any reason to bring the body home for disposal There are also indications in the medicolegal field Lear quotes a rather gruesome incident in which embalming helped to meet a difficult situation During the war so many patients died *from influenza in* a London hospital that the bodies could not be accommodated in a refrigerator, and during the night rodents came into the mortuary and disfigured the faces of many of the bodies, to avoid distress upon relatives, the bodies were embalmed, and then by means of "derma surgery" it was possible to rebuild the damaged tissues so that no evidence of disfigurement could be observed

The process of embalming is, in broad terms, the complete irrigation of the vascular system by a disinfecting solution injected into one or more of the main arteries, the blood being simultaneously drained from one or more of the main veins The solution is basically one of formalin, glycerin, and borax with coloring matter to restore the natural complexion of the tissues Satisfactory distribution removes all traces of cyanosis and hypostasis, and the massage of the exposed parts during the course of the injection results in the complete restoration of the natural contours Normal or abnormal body fluids are removed by aspiration, and parts or substances not receiving the supply of embalming cannot go in the course of the arterial injections, as for example fecal matter in the alimentary tract or special diseased areas, are cared for by a direct injection of a concentrated embalming chemical. There can be little doubt that embalming is a highly *developed technic and its value needs no stressing — Current Medical Digest, July, 1949*

APPLICATION OF SPONGE BIOPSY FOR CANCER DIAGNOSIS IN OFFICE PRACTICE

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(From the Department of Pathology, New York Polyclinic Medical School and Hospital)

AN IMPORTANT spearhead in the present concerted attack on the cancer problem is the development and improvement of simple, reliable methods of diagnosis The key to cancer cure, in many instances, lies in early diagnosis at a stage of the disease when signs and symptoms may be slight if not entirely absent The visual acuity of the physician in the examination of all accessible body surfaces which may be the site of cancer could be multiplied several hundred times if it were possible to focus the high powers of the microscope on all these surfaces without significant disturbance to the patient The medical practitioner occupies a strategic position in encouraging and requesting the microscopic examination of all early accessible ulcerative lesions of skin and mucous membranes to determine the presence or absence of cancer, especially since that determination may now be made by a simple procedure which avoids the hazards of pain, hemorrhage, and infection This procedure is the recently introduced method of sponge biopsy for the diagnosis of cancer [1–5]

Technic

Sponge biopsy for the diagnosis of cancer in accessible areas is performed by firmly rubbing a suitable sponge over an ulcer or mucosal surface The sponge will absorb tissue juice, suspended cells, and particles of tissue The sponge with its absorbed contents is then placed in a small bottle of 10 per cent formalin for fixation, after which, in the routine manner, it is embedded in paraffin, cut by microtome, and stained with hematoxylin and eosin prior to examination by a pathologist The microscopic sections will show the network of the sponge, on the surfaces and in the interstices of which will be seen the coagulum of tissue fluid with suspended cells and tissue particles If the sponge has been rubbed in contact with a cancer, one will find cancer cells, singly and in groups, as well as particles of cancer tissue with their characteristic cytologic and histologic abnormalities

We have worked mostly with two types of sponge, one gelatin (Gelfoam Number 12, The Upjohn Company, Kalamazoo 99, Michigan), the other cellulose (Onkosponge Number 1, Histomed, Incorporated, Paterson 1, New Jersey) Both these sponges have good absorbing power and are easily cut by microtome after embedding in paraffin The cellulose sponge has greater tensile strength, is less likely to tear, keeps its form better after compression and wetting, and has slightly more abrasive power, thus facilitating the removal and absorption of tissue particles from granulating surfaces It is interesting that these sponges are derivatives of connective tissue, animal and vegetable, respectively In order to facilitate proper application of the sponge, we have introduced a special sponge biopsy forceps (Histomed, Incorporated, Paterson 1, New Jersey) This instrument is equipped with a narrow, flat, diamond-shaped surface extending beyond the point of seizure of the sponge to provide support from behind and permit firm pressure as the sponge is rubbed over the ulcer or mucosal surface to be examined (Fig 1)

The success of the method depends on the transfer of cancerous material from the lesion to the sponge and the microscopic demonstration of that material in the stained sections Our experience to date indicates that in most cases no special precautions are needed for the successful application of the method To insure the best results in the highest percentage of cases, however, the adherence to a few simple technical suggestions will prove helpful

First, a clear visualization of the lesion is essential This presents no difficulty in ulcerations of the skin, cervix, mouth, etc In the

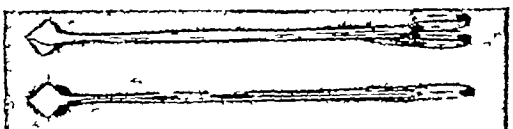


FIG 1 At the top is the special sponge biopsy forceps showing diamond-shaped plate behind the sponge In the middle is the same seen from the opposite side, showing the square sponge and the corrugations on the short arm to facilitate scraping of hard or granulomatus surfaces such as skin, lips, mouth, rectum, etc At the bottom is the long narrow uterine forceps with triangular sponge for insertion into lower portion of cervical canal

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rectum or rectosigmoid, however, good illumination and careful cleansing of the bowel by previous enema or by wiping with several cotton gauze sponges are important In general, the diagnostic sponge should be rubbed over the base of an ulcer and especially around its margins near the healthy surrounding tissue If the lesion is high in the rectum and its outlines are seen with difficulty, it is best to use three or four separate pieces of sponge, each rubbed firmly over the entire ulcerated or suspicious area Second, a chronic ulcerating lesion is usually covered with a varying amount of granulation tissue, necrotic tissue, and inflammatory exudate Such material is of no help in the diagnosis of cancer Accordingly, in an occasional case where an excess of such material covers the surface of the lesion, it should be firmly wiped with dry cotton gauze to remove the superficial grayish-white dead tissue, thus exposing the underlying living pinkish tissue, before the application of the diagnostic sponge Third, one should inspect the sponge after its application A sponge rubbed over an ulcer should be discolored to some extent by the absorbed material If no discoloration is seen, rub the sponge more firmly, and then turn the sponge over and rub the other side against the tissue to be examined When both surfaces of the sponge have thus absorbed tissue elements, even if these are not visible to the naked eye, the technician will not be able to make the mistake of cutting sections from the wrong side In general, a sponge which has been properly applied will be well soaked with tissue juice and suspended viable cells and tissue particles

Sponge biopsy of the cervix uteri requires two or three separate pieces of sponge One flat square, approximately 1 0 by 1 0 by 0 2 cm , is held in the special sponge forceps and is rubbed firmly over the entire surface of the lips of the cervix and the external os The second piece, triangular in shape, is made by cutting one of the above squares diagonally This piece is held at the end of a long narrow uterine forceps and is then inserted gently into the cervical canal for a distance of 0 5 to 1 0 cm , depending on the patency of the cervix (Fig 1) The sponge forceps is then rotated on its long axis, pressing the sponge against the mucous membranes of the lower cervical canal, the os, and the adjacent lips Both triangular pieces should thus be used If an ulcerative lesion is seen on the cervix, an additional piece of sponge should be rubbed on the ulcer, especially near the margins Sponges from a single area, such as the cervix, may all be placed in the same small formalin bottle

The tissue technician depends on the discoloration of the sponge as a guide in selecting the sponge surface to be sectioned The technician will cut sections from the sponge surface which has come into most intimate contact with the lesion, as indicated by the amount of discoloration and the presence of adherent mucoid or particulate matter If tiny free particles are seen in the formalin bottle, these particles should be processed along with the sponge and should be placed in contact with the sponge surface to be cut before embedding This may be accomplished by placing the particles in the melted paraffin and then covering them with the sponge The sections taken from the immediate surface of the paraffin block should be mounted Deeper sections may also be taken

The pathologist can quickly familiarize himself with the findings in sponge biopsy by rubbing sponges as described above over fresh tumors immediately after removal from the patient Sections from such sponges will demonstrate the ease with which cancerous material may be absorbed by a suitable sponge and demonstrated by microscopic examination

General Results of Sponge Biopsy

In a previous report we have presented the results of sponge biopsy in 280 cases, in 110 cases additional tissue for comparative study was made available by surgical biopsy, surgical specimen, or postmortem examination [3] That series included six cases of cancer of the cervix uteri, nine cases of adenocarcinoma of the rectum, three cases of skin cancer, and five cases of cancer of the vocal cords and bronchi "In these 23 cases of proved cancer, sponge biopsy results were positive in 19, presumptive positive in three, suspected positive in one The sponge was applied in these 23 cases by 12 different physicians, several of whom were not aware of the simple technical requirements elaborated during the course of this study In one of our cases of cancer of the rectum, the surgical biopsy was negative, sponge biopsy was positive Of the six cases of cancer of the cervix, two were completely asymptomatic" [3] On the basis of the comparative findings in the controlled series of 110 cases, it was concluded that "with respect to accuracy and reliability of results, the method of sponge biopsy closely approximates that of surgical biopsy"

Sponge Biopsy in Office Practice

In a series of 75 sponge biopsies performed by private physicians in their office and sent to us for examination, four cases of cancer were found These include one case of early carcinoma of the cervix, one advanced carcinoma of the cervix, one cancer of the rectosigmoid, and one cancer of the skin Brief summaries of these positive



FIG 2 Sponge biopsy of early carcinoma of cervix (Case 1) Note the particle of cancer tissue made up of large cells, with large, darkly staining nuclei showing marked variability in size and shape The dark solid bands of varying thickness are the gelatin framework of the sponge (440 ×)

cases are presented Two cases from our clinics are added to illustrate other types of carcinoma

Case 1—D S was a forty-eight-year-old white woman whose vague complaints were thought to be menopausal in origin and who accordingly was referred to a gynecologist for possible endocrine therapy There was no irregular bleeding or spotting A sponge biopsy of the cervix, which on inspection appeared quite normal, was included as part of the routine pelvic examination The sponge biopsy showed epidermoid carcinoma (Fig 2) This was confirmed by surgical biopsy, and a panhysterectomy was performed Examination of the specimen showed early superficial carcinoma of the cervix with one area of invasion 0 8 cm. in greatest diameter

Case 2—F F was a fifty-year-old white woman whose menstrual periods were regular until two months previously when bleeding began and continued to the present A sponge biopsy showed an

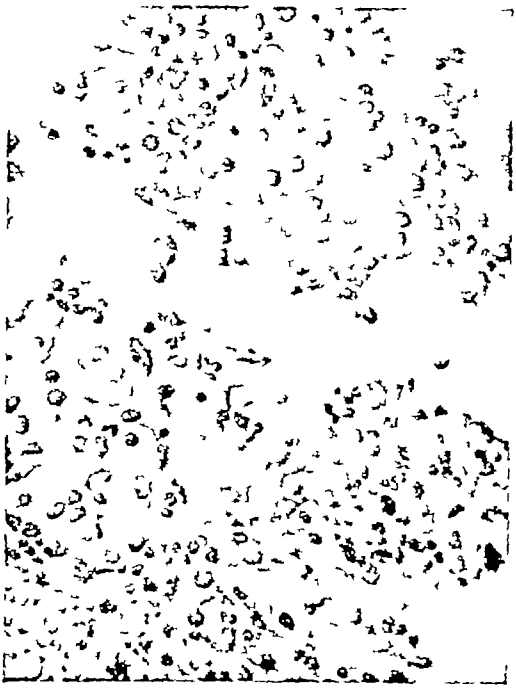


FIG 3 Sponge biopsy of advanced carcinoma of cervix (Case 2) The tumor cell nuclei are large, darkly staining, irregular, mostly round and oval, vary markedly in size The tissue is more anaplastic, showing less resemblance to stratified epithelium than does the tissue of the preceding case (440 ×)

abundance of blood and scattered particles of tissue diagnosed as epidermoid carcinoma (Fig 3) A surgical biopsy was performed shortly thereafter and reported as carcinoma of the cervix, grade 3

Case 3—J M was a thirty-eight-year-old white man who gave a one-year history of diarrhea and rectal bleeding A surgical biopsy done elsewhere showed "normal rectal mucosa, muscle wall, apparently polypoid tissue" The patient was referred to the office of one of our proctologists who saw a lesion in the rectosigmoid which appeared so friable that he preferred not to excise any significant amount of tissue because of possible perforation of the bowel wall He accordingly did a sponge biopsy The sponge biopsy showed numerous particles of tissue characteristic of adenocarcinoma of the large bowel (Fig 4)

Case 4—S S was a fifty-eight-year-old white woman complaining of a sore behind the left ear which did not heal despite continued treatment by a dermatologist The family doctor performed a sponge biopsy which showed small particles of tissue made up of large darkly staining anaplastic cells showing considerable variation in size and shape (Fig 5) This was diagnosed as carcinoma and, because of a history of a breast lesion three years previously was interpreted as probably metastatic



FIG 4 Sponge biopsy of adenocarcinoma of rectosigmoid (Case 3) The darkly staining atypical columnar cells are crowded together in irregular glandlike pattern and in solid masses Abundant blood is also present



FIG 5 Sponge biopsy of small carcinomatous ulcer behind the ear, metastatic from breast carcinoma removed three years previously (Case 4) Note the particle of cancer tissue with characteristic cell nuclei, large, darkly staining, round, oval, and irregular, varying in size and shape (440 ×)

from the breast A surgical biopsy of the skin lesion showed clumps of tumor cells in the subcutaneous tissue and lymphatic channels such as one sees in breast carcinoma, metastatic in the skin

Case 5 —H Q was a fifty-four-year-old white man seen in our dental clinic complaining of a "soreness" in the mouth of three months duration Examination showed an ulcerated area 1 cm in diameter in the left cheek behind the molars A sponge biopsy was performed and showed epidermoid carcinoma (Fig 6) This was subsequently confirmed by surgical biopsy

Case 6 —W S was a fifty-year-old white man who came to our nose and throat clinic complaining of soreness of throat of three months duration Physical examination showed a swelling on the right side of the nasopharynx Sponge biopsy showed particles of tissue made up of large atypical anaplastic cells, diagnosed as "carcinoma, probably lymphoepithelioma" (Fig 7) The surgical biopsy performed later showed lymphoepithelioma

Comment

The value of a diagnostic procedure varies directly with the importance and reliability of the information it reveals and inversely with the costs of the procedure, measured as cost to the physician in terms of time, effort, and requisite skill, and cost to the patient in terms of anxiety, pain, personal danger, and financial expenditure. A comparison of the method of surgical biopsy, which has been the standard method in the clinical diagnosis of cancer for two generations, with the method of sponge biopsy in respect to the several factors enumerated above may be useful to the physician in helping him to utilize each to its fullest possibility The importance of the diagnosis by either method needs no statement beyond the fact that, performed early, it may lead to complete cure, performed late, it is tantamount to an obituary notice As to reliability of the results, assuming that both methods are applicable and properly performed, our studies to date indicate that positive results are equally reliable with both methods, that an occasional false negative is possible with either method, and that doubtful results may be encountered more frequently with sponge biopsy



FIG 6 Sponge biopsy of epidermoid carcinoma of mouth behind molars (Case 5) Note comparatively large piece of tumor tissue made up of atypical stratified epithelial cells showing atypism and tendency to concentric pearl formation Adjacent is seen the irregular linear structure of the cellulose sponge (100 ×)



FIG 7 Sponge biopsy of carcinoma—lymphoepithelioma of nasopharynx (Case 6) A particle of tumor tissue is seen to consist of cells with large darkly staining irregular nuclei, showing considerable variation in size and shape (440 ×)

because of the comparative paucity of tissue available for examination

With respect to the costs to the physician in terms of time, effort, and requisite skill, the method of sponge biopsy is distinctly superior With respect to costs to the patient, i e, the anxiety, pain, and personal danger of a surgical biopsy which involves a minor surgical operation sometimes requiring hospitalization, the method of sponge biopsy, which is a simple office procedure, is certainly preferable With respect to financial cost, the advantage again lies with sponge biopsy A useful rule of procedure would be to obtain the diagnosis by sponge biopsy if possible and obtain it early If the findings do not fit in with the clinical picture, repeat the test, or use surgical biopsy to obtain more tissue for examination A consultation with the pathologist in the occasional doubtful or difficult case may save a great deal of time and effort

Statistically, most of the ulcers seen in the office are benign rather than malignant In malignant cases, surgical biopsy is a trifling procedure compared to the seriousness of the disease In many benign cases, surgical biopsy is a weighty procedure compared to the trivial nature of the disease and may cause more disturbance than the disease itself A simple and reliable method is required not only to diagnose malignancy, but also to demonstrate its absence in the large number of benign ulcerative lesions which simulate cancer and require microscopic examination In that category, the method of sponge biopsy has shown considerable promise

Several practical advantages of sponge biopsy become apparent in a consideration of the six cases briefly summarized above In Case 1, there was no evidence pointing to disease of the cervix, yet sponge biopsy revealed a carcinoma at that site A similar case from our clinic had previously been seen A confirmatory surgical biopsy prior to operation was considered desirable The cervix, however, appeared normal, and the problem of selecting a site for the biopsy arose In a recent study on the anatomic distribution of early superficial carcinoma of the cervix, Foote and Stewart found that a single piece of tissue taken from the most likely site will miss half the lesions [4] Several pieces are necessary In the present case the surgeon curetted the entire mucoepithelial ring at the

external os The tissue showed superficial carcinoma, with little invasiveness Taken alone, it might have been difficult to diagnose The previous sponge biopsy, however, had included very characteristic particles of cancer tissue obtained from the invasive portion of the tumor on the cervical lip, about 1 cm from the os, not detectable on visual inspection and completely missed by the biopsy scalpel The advantage of the sponge, therefore, is its ability to cover the entire surface of the lips of the cervix Early superficial cancer is soft, cellular, and friable, and particles of cancer tissue are easily detached and absorbed in the sponge which is firmly rubbed over the cervix The simplicity of this procedure and the important information it imparts would commend it as a routine test as part of the pelvic examination of any woman past thirty years of age

In Case 2, when the abnormal bleeding started, the disease was already far advanced Carcinoma of the cervix is a slowly developing disease, probably spread over several years Bleeding is a late sign resulting from extensive tumor growth and tissue destruction At this stage, treatment is likely to be costly, protracted, and ineffectual The time to treat cancer of the cervix is before extensive invasion and tissue destruction have taken place This can be done only by the early detection of the disease, which may be accomplished by sponge biopsy, by the use of cytologic studies of cervical secretions, by the examination of tissue scrapings, curettings, etc Of the several methods mentioned, the method of sponge biopsy appears to be the only one that detaches for examination tissue particles from the entire surface of the cervical lips and adjacent cervical canal and with a minimum of trauma at that

In Case 3, diarrhea and rectal bleeding were present in a man of thirty-eight for one year before the presence of cancer was demonstrated A previous attempt by surgical biopsy had failed Sponge biopsy made the diagnosis We have another similar case in our comparatively short series of rectal cases (about 15) Since the sponge rubbed over a rectal ulcer will pick up many tiny tissue fragments from different parts of the lesion, the chance of missing a malignancy, if present, is greatly reduced Furthermore, the hazard of possible hemorrhage following surgical biopsy in rectal ulcers is significant and may be avoided by the use of sponge biopsy In many cases the clinical and roentgen ray findings point to rectal or sigmoidal carcinoma, and tissue confirmation is desired prior to extensive operation In such instances, sponge biopsy is preferable by far to surgical biopsy

In Case 4, a small ulcer behind the ear in a woman of fifty-eight was treated by a dermatologist without success The history of a previous breast tumor pointed to a possible metastatic lesion This was found by sponge biopsy and confirmed by surgical biopsy

In Case 5, our dental surgeon showed us the ulcer in the mouth of this patient The dentist pointed out that a surgical biopsy would require local or general anesthesia Since the ulcer was obviously infected, local infiltrating anesthesia seemed undesirable Accordingly, a general anesthetic would be necessary We recommended the avoidance of these difficulties by the use of sponge biopsy This showed epidermoid carcinoma, later confirmed by surgical biopsy

In Case 6, a fifty-year-old man had a sore throat of three months duration and showed a swelling on the right side of the nasopharynx. A sponge biopsy gave a prompt diagnosis of "carcinoma, probably lymphoepithelioma," which was confirmed by surgical biopsy

The use of surgical biopsy is often postponed by the objections and delaying action of the patient or by the unwillingness of the physician to use a procedure which may disturb the patient more than the disease In a high percentage of cases, these difficulties can be resolved by the use of sponge biopsy

Summary and Conclusions

Sponge biopsy is a method of collecting tissue from an ulcerating or mucosal surface suspected of being cancerous The sponge firmly rubbed over the surface of the lesion will absorb tissue juice, suspended cells, and tiny dislodged particles of tissue Sponge and absorbed material are fixed in formalin, embedded in paraffin, cut by microtome, and stained by hematoxylin and eosin prior to microscopic examination by a pathologist The method is applicable to the diagnosis of cancer of the cervix uteri, rectum and rectosigmoid, skin, mouth, pharynx, etc On the basis of parallel determinations it has been found that, with respect to accuracy and reliability, the method of sponge biopsy closely approximates that of surgical biopsy Because of the simplicity of the technic, the reliability of the results, and the absence of pain, hemorrhage, or possible infection, the method of sponge biopsy commends itself as a useful office procedure

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THE USE OF DICUMAROL IN ACUTE MYOCARDIAL INFARCTION

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PERIPHERAL and pulmonary embolism still remain as dreaded complications of acute coronary occlusion with myocardial infarction Fairly frequently, these phenomena are directly responsible for the death of a patient whose recovery would otherwise be assured The problem of minimizing the occurrence of fatal complications has presented a challenge to the clinician which, until recently, more often than not could not be met successfully

Anticoagulants are used in the management of acute coronary thrombosis with myocardial infarction with four principal objectives in mind

1 To prevent the formation of intracardiac mural thrombi

2 To prevent pulmonary embolism from arising from thrombophlebitis

3 To prevent the extension of the thrombus, either proximally or distally to the original site of occlusion

4 To prevent the further development of thromboses in arteriosclerotic peripheral arteries

When interest in the anticoagulants became apparent, many physicians were still reluctant to employ them in the treatment of acute coronary thrombosis They felt that, since coronary occlusion is sometimes precipitated by subintimal hemorrhage into an atheromatous placque, the anticoagulants might, in those cases, play an adverse role Later evidence, however, showed this to occur in very few instances of coronary artery occlusion

Although the exact mode of action of Dicumarol is unknown, evidence seems to favor the concept that it inhibits the formation of prothrombin at its source This inhibition of the formation of prothrombin varies in different individuals, since it was found that identical doses administered by mouth to different persons produced variable effects on the prothrombin time Absorption and renal excretion may be important in influencing the effect of the drug on prothrombin Less than 5 per cent of patients appear to be resistant to Dicumarol In some, inadequate absorption may be the cause of this resistance, and larger and more frequent doses may be necessary On the other hand, patients are seen who are sensitive to Dicumarol and whose concentration of prothrombin in the blood may fall to critical levels after the first few doses These are the cases that may develop bleeding

Applying the knowledge of the value of Dicumarol in the treatment of peripheral thrombosis and embolism, a clinical study of the use of Dicumarol in intracardiac thrombosis as a result of acute coronary occlusion was undertaken at the Bronx Hospital Although only 32 cases are reported, it is felt that this series, together with others now appearing in the literature, will help to confirm the value of Dicumarol in reducing thromboembolic phenomena and mortality in acute myocardial infarction

Procedure

No case was considered unless it met all the criteria for diagnosis—clinical history and laboratory and electrocardiographic evidence of acute infarction There were many more that clinically presented this diagnosis, but failure of the electrocardiogram to confirm this impression excluded them from the series

Daily prothrombin determinations were made according to the method described by Quick.[1] The routine administration of Dicumarol was as follows On admission the patient had a prothrombin determination and a blood typing, the latter a routine procedure on all patients receiving anticoagulant therapy An initial dose of 300 mg of Dicumarol was given orally, followed by 200 mg the second day and 100 mg daily thereafter until the prothrombin level reached 20 per cent of normal The prothrombin level was kept as close to 20 per cent of normal as was possible If the level fell below 20 per cent, no Dicumarol was given When the level reached 20 per cent, in most cases 50 to 100 mg of Dicumarol given every other day aided in maintaining the level at this optimum point If there was any evidence of Dicumarol overdosage—gross hematuria, epistaxis, melena, etc —the drug was promptly discontinued and 72 mg of vitamin K given slowly intravenously and repeated in four hours if necessary If bleeding persisted, a transfusion of whole blood was given This procedure usually controlled whatever bleeding had ensued Should it be necessary, repeated transfusions can be given When bleeding had ceased, Dicumarol therapy was reinstituted with the critical level now raised to the point at which no bleeding had occurred

The patients were kept on anticoagulant therapy until they became ambulatory—in most cases at least thirty days At this point the drug was discontinued

Results

Of the 32 cases treated with Dicumarol, three died (9 4 per cent) One of these, a seventy-two-year-old man with a history of two previous infarctions, had been started on Dicumarol four days after admission On the tenth hospital day he suddenly developed acute left ventricular failure and expired His prothrombin level at time of death was 25 per cent of normal The second death occurred in a fifty-five-year-old man who had been admitted in a critical condition He was improving until there was a recurrence of dyspnea, orthopnea, and cyanosis on the fourteenth hospital day He died six days later, twenty days after admission His prothrombin level was 25 per cent of normal. The third fatality occurred in a sixty-eight-year-old woman who was showing marked clinical improvement until the ninth hospital day when, while turning in bed, she suddenly gasped for breath and expired At the time of death her prothrombin level was 45 per cent of normal In the latter two cases, the coronary episode was the initial one for both patients Unfortunately, permission for postmortem examination was not obtained in any of the three deaths, but the clinical impression as to cause of death was that of embolism.

The majority of the patients treated were in the sixty to sixty-nine year age group Of the others, the youngest was thirty-three and the oldest eighty-one years The latter developed an incarcerated femoral hernia (left) on the thirteenth hospital day, was given vitamin K intravenously preoperatively, and operated upon under local 1 per cent novocaine anesthesia Postoperatively he was continued on Dicumarol and left the hospital in good condition Of the 11 women and 21 men in the series, three, including one of the fatalities, had experienced previous myocardial infarctions

The electrocardiograms revealed eight posterior wall infarcts, 22 anterior wall, one posterolateral, and one lateral wall

The duration of Dicumarol therapy was approximately thirty days in most cases, with a minimum of nineteen and a maximum of fifty-eight days The average amount of Dicumarol given during the period of treatment was 1,750 mg, a minimum of 1,050 mg (nineteen days) and a maximum of 2,850 mg (fifty-eight days)

Two patients developed mild gross hematuria which was promptly controlled by cessation of the drug and intravenous administration of vitamin K.

Except for what was assumed to have occurred in the three mortalities, there was no clinical evidence of subsequent embolic phenomena in any of the other patients during their hospital stay

Comment

Hellerstein and Martin reported an 11 5 per cent incidence of clinically detectable thromboembolic lesions in 1,605 cases of myocardial infarcts [2] In their autopsy series of 160 cases of myocardial infarcts encountered in a series of 2,000 consecutive autopsies, 45 per cent had a total of 111 peripheral emboli or infarcts Sixty-five of their autopsied cases (41 per cent) showed intracardiac mural thrombi, and of these, 36 cases (55 per cent) showed evidence of peripheral occlusion of vessels as a result of either thrombus or embolus formation Of the 95 cases without intracardiac thrombi, 37 cases (39 per cent) had distal occlusion of peripheral vessels indicating the formation of thromboembolic processes in organs distal to the heart in cases where the heart did not appear to serve as the source of emboli The lungs were found to be most frequently involved, followed by the kidneys, spleen, brain, extremities, mesentery, and aorta These findings were similar to those of Blumer in his analysis of 164 autopsied cases [3] However, in 81 clinical cases, Blumer found that, following the lungs, the central nervous system was the next most common site for thromboembolic lesions followed by the vessels of the extremities, of the kidneys and surface vessels, and vessels of the spleen and aorta Pulmonary and cerebral emboli would obviously be clinically recognized because of the detectable signs and symptoms This would also hold true for the occlusion of the vessels of the extremities

On the other hand, since many of the patients who have experienced an acute myocardial infarction are so seriously ill, the small emboli to the spleen and kidney could more easily be overlooked

That arterial embolism was the most common cause of death in individuals under the age of fifty with myocardial infarction was shown by Master and his coworkers [4] In 100 consecutive cases of acute myocardial infarction at the Mayo Clinic, Nay and Barnes found thromboembolic complications in 37 of the 100 cases, and of these, the deaths of 12 could be attributed to these complications [5]

From July 1, 1946, to June 30, 1947, at the Bronx Hospital, the mortality rate among a control group of patients who experienced their initial attack of acute coronary occlusion and who received no anticoagulant therapy was approximately 20 per cent On the other hand, the over-all mortality rate in the series just presented was 9 4 per cent, with only three fatalities in a group of 32 cases Unfortunately, since per-

mission for postmortem examination could not be obtained, the exact cause of death could not be determined The striking feature of the study was the fact that there was no clinical evidence of embolism as a sequela of the acute infarction in any of the surviving cases receiving Dicumarol, as contrasted with the previously mentioned incidence among those not receiving the anticoagulant We feel, in view of this evidence, that Dicumarol therapy is indicated in acute coronary occlusion with myocardial infarction

In addition to Dicumarol, all accepted measures for the treatment of coronary thrombosis were included in the therapy Digitalis was given to those patients who developed congestive heart failure as a result of the coronary episode In spite of reports which have appeared suggesting the increase of embolism when digitalis was administered, it was felt that with the use of the anticoagulant the possibility of digitalis enhancing embolus formation was greatly lessened, if not completely overcome [5 6]

During the course of the study, heparin was given to several patients in conjunction with Dicumarol until the latter drug exerted its effect, and then the heparin was discontinued This took, usually, about forty-eight to seventy-two hours It was noted that, if blood for the prothrombin level was drawn too soon after heparin had been given, an inaccurate prothrombin reading was obtained Therefore, it was concluded, as had Wright and his coworkers and Long, Hurn, and Barker previously, that to counteract the heparin effect upon the prothrombin level, blood for the prothrombin level should be drawn just before the next dose of heparin is to be given [7 8]

Summary and Conclusions

1 Thirty-two cases of acute coronary occlusion with myocardial infarction treated with Dicumarol are presented

2 The usual therapeutic methods were employed in addition to the anticoagulant

3 The mortality rate was 9 4 per cent (three cases)

4 There was no clinical evidence of complicating embolism in any of the 29 surviving cases

5 Except for two mild cases of hematuria, there were no toxic effects of Dicumarol Use of vitamin K promptly caused subsidence of hematuria

6 Dicumarol should be used routinely as an adjunct to therapy in acute coronary occlusion with myocardial infarction

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'DOCTOR JONES" SAYS—

"The Accident-Prone Individual"—that was the title of an editorial in the *J P H A Journal* awhile back. A lot of people (you've maybe known some of 'em)—they're always having accidents machinery, automobiles, falls, and what not Some of 'em, the reasons are apparent dull wits, clumsiness, carelessness, and so on The editorial wasn't referring to them These accident-prones are likely to be intelligent, thoughtful, ablebodied people

It's automobile accidents, of course, that attract most attention, especially when people other than drivers are injured. In one six-year study of traffic accidents they found that less than four per cent of the drivers were involved in 36 per cent of the accidents They're likely to lay their accidents to the "bad breaks" they've gotten Well, there's plenty of bad breaks but they're results, not causes The causes are psychologic Consciously they're anxious to avoid accidents, unconsciously, on occasion, they want to have 'em

It comes back, mostly, to this old business of unconscious reactions to childhood impressions In some cases, for example, there's hangover of childish resentment of what seemed like too much parental regulation and control—rebellion against authority Along with that there may be a feeling of guilt over the rebellion An accident, in the unconscious mind of the driver, is a double-barreled opportunity to get even with "the boss" and punish himself for his rebellion Conscious says "Sharp curve! Slow down!" Unconscious says "Step on it!" Unconscious wins and they go over the bank. There's more to it, but that's at least a peep into the works

The immediate problem, from the standpoint of public health and safety, is to spot the accident-prones and keep 'em in jobs and places where their accidents will be least likely to be serious Understanding one's accident-proneness should help to overcome it But they have to be discovered first — *Paul B Brooks, M D , September 19, 1949*

A REPORT ON THE USE OF SODIUM PTEROYL TRIGLUTAMATE IN 413 CASES

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THE purpose of this report is to indicate the nature of the results obtained during the course of clinical investigations with sodium pteroyl triglutamate on patients with late, hopeless malignancies Many physicians participated in the study, and the results observed, therefore, cannot be regarded as the work of one group but rather as the observations determined by physicians in various types of medical practice and under varying conditions The cases were not selected but represent random cases having incurable malignant tumors treated to determine the degree of symptomatic benefit which might be obtained under the conditions of medical practice

All of the patients were considered not likely to be benefited by present known methods, including surgery, radiation, and hormonal therapy These other means of treatment were used in most of the cases in this series In addition, no attempt was made by the physicians treating and observing the patients to conduct a controlled experimental study It is obvious, therefore, that some of the effects reported might have resulted either from therapy with sodium pteroyl triglutamate or from the incidental psychotherapy involved in giving any form of special treatment to a patient being treated for symptomatic results only It is to be further noted that the cases here reported were studied not for any objective effect which the drug might exert upon the tumor or its metastases but rather for the symptomatic relief which the drug might provide

Early results reported by Lewisohn *et al*, Farber *et al*, Lehv *et al*, and Leuchtenberger *et al* indicate that patients with malignant disease who exhibit pain, loss of sense of well-being, or loss of appetite may obtain symptomatic relief from the use of sodium pteroyl triglutamate [1-4] The drug was used in this series of cases, therefore, to see whether, in the hands of the practicing physician, it might prove to be clinically useful

The accompanying table shows the different types of malignant disease included in the study, together with pertinent data regarding them (Table 1)

Discussion

Analysis of the results, of course, is dependent upon the observations of the physicians who attended the patients and who were in the best position to determine whether symptomatic relief was or was not obtained Since other forms of therapy were used, including surgery, radiation, hormones, and analgesics, it might be considered difficult to evaluate the effectiveness of sodium pteroyl triglutamate with any degree of accuracy Since these other measures used in therapy of the patient did not, after a reasonable length of time—and in the case of radiation therapy after several months time—result in symptomatic relief of the patient, it is possible that, where beneficial results were observed, they can be attributed to sodium pteroyl triglutamate It is possible, of course, to reason that psychotherapy and skill in the art of caring for the patient may have been wholly responsible for the symptomatic benefit observed Additional work done elsewhere, however, in which controlled studies were made, indicates that it is the result of therapy with the drug rather than psycho-

TABLE 1.—TYPES OF MALIGNANT DISEASE INCLUDED IN THE STUDY

Disease	Total Cases	Pain Not Relieved Number	Pain Not Relieved Per Cent	Pain Relieved Number	Pain Relieved Per Cent
Carcinoma of breast	103	52	50	51	50
Carcinoma of colon and rectum	69	43	62	26	38
Carcinoma of stomach	22	9	41	13	59
Carcinoma of liver (primary)	3	3	100		
Carcinoma of esophagus	9	3	33	6	67
Carcinoma of throat mouth and tongue	10	6	60	4	40
Carcinoma of tonsils nasopharynx	9	4	44	5	56
Carcinoma of bronchus	4	3	75	1	25
Carcinoma of lung	20	11	55	9	45
Carcinoma of pancreas	12	3	25	9	75
Carcinoma of kidney	6	3	50	3	50
Carcinoma of bladder	7	3	43	4	57
Carcinoma of prostate	16	6	38	10	62
Carcinoma of uterus	10	7	70	3	30
Carcinoma of cervix	23	12	52	11	48
Carcinoma of vagina	3	2	67	1	33
Carcinoma of ovary	17	8	47	9	53
Carcinoma of parotid	1	1	100		
Carcinoma of skin	6	2	33	4	67
Spinal cord tumor (unspecified)	1	1	100		
Glioblastoma	2			2	100
Melanotic sarcoma	10	7	70	3	30
Sarcoma (unspecified)	12	7	58	5	42
Lymphosarcoma	5	2	40	3	60
Multiple myeloma	2	1	50	1	50
Miscellaneous	18	7	39	11	61
Hodgkin s disease	5	4	80	1	20
Leukemia	3	3	100		
Unknown	5	1	20	4	80

therapy which gave rise to the results in these patients, as well as in the controlled series [5]

Slaughter in a recent report has demonstrated, in a series of objective experiments on normal humans, that the administration of sodium pteroyl triglutamate consistently produced analgesia as interpreted by a rise in the pain threshold [6]

The fact that a significant number of patients in this series did experience some measure of relief from their symptom of pain, as well as increased sense of well-being and increase of appetite, is noteworthy It is important to note that in none of the cases reported were there any serious side actions or toxic effects The only side actions which did occur consisted of a burning or stinging sensation of short duration in those patients who received the dose intramuscularly instead of intravenously

Medication was given in doses consisting usually of 10 mg daily for the first week and 20 mg daily for subsequent weeks Most of the physicians indicated that when relief did occur it appeared within the first four weeks of therapy Thus, it would seem advisable to discontinue therapy if symptomatic relief does not occur after one month of treatment with sodium pteroyl triglutamate When pain was relieved, therapy was continued in some instances for more than one year

The nature of the relief obtained in this series may be contrasted with the relief obtained with morphine medication In the patients treated with sodium pteroyl triglutamate, when there was relief of pain there was also a psychic improvement, described by some of the reporting physicians as being a return to a normal mental outlook The mental depression and sedation, which are known to occur when morphine therapy is used to relieve pain, were not present Further, it should be noted that, when sodium pteroyl triglutamate was withheld, there was no evidence of addiction

The nature of this study does not permit a discussion as to the mechanism of the action of this new drug Further studies of a pharmacologic and physiologic nature must be awaited before the mechanism of action will be better understood

Summary

1 A report of 413 unselected cases treated with sodium pteroyl triglutamate is made to show the possible symptomatic relief to be derived from this new drug in the treatment of malignant disease

2 Statistics regarding rate of relief are given

3 A significant degree of relief indicates that sodium pteroyl triglutamate therapy will play a useful role in the care of the patient suffering from malignancy, although it cannot be expected to eradicate the malignant disease

4 It would seem advisable to discontinue therapy if symptomatic relief does not occur after one month of treatment with sodium pteroyl triglutamate

5 Further studies to determine the mechanism of action are recommended

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Case Reports

PREGNANCY COMPLICATED BY ACUTE DIABETIC CRISIS

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(From the United Hospital, Port Chester)

DIABETES mellitus with a blood sugar of 1,000 mg per cent or more is unusual The following case is reported because of the acute onset of the diabetic state itself and the extremely high blood sugar

Case Report

M D , a nineteen-year-old, white nullipara, was first seen November 5, 1946, because of dysmenorrhea since age thirteen, primary, lasting seven to eight days, with an interval of two to four weeks Bleeding had been profuse prior to her marriage five months ago, but this had now improved No precautions had been taken to avoid pregnancy The last period had been normal in amount, painful, and had started October 20, 1946

The patient had had rheumatic fever at age thirteen with no cardiac involvement Maternal grandmother and one paternal aunt were known diabetics.

Examination revealed no abnormalities except obesity, patient being 5 feet 6½ inches tall and weighing 175 pounds Routine urinalysis was negative

It was felt that this was a case of primary pituitary-ovarian dysfunction, and, in keeping with the policy of trying the simplest thing first, she was given diethylstilbestrol, 0 1 mg once daily except during periods. For her obesity a 1,500-calorie diet was advised, and she was given a capsule, containing ¼ grain phenobarbital, ¼ grain thyroid, and ½ grain benzedrine sulfate, twice a day

The patient was next seen on December 3, 1946 at which time she was pregnant Her last menstrual period was October 20, 1946 She weighed 175¾ pounds, and she was cautioned not to gain more than 2 pounds a month Urine was negative

The patient was seen in January, February, and March and was doing well except for continued weight gain Blood pressure remained in the neighborhood of 120/80 until March 24 when it rose to 138/84 On April 28, it was 144/86, having dropped back to 128/80 earlier in April Her weight was now 203 pounds, and she was told that unless she lost weight by reducing her food intake a complication of pregnancy must be expected She was placed on a more stringent diet, with two days a week of milk and one serving of a single vegetable.

The patient was now seen weekly, and blood pressure and weight came down slightly and slowly Urinalysis was performed at each visit and was negative for sugar, with only an occasional faint trace of albumin On May 19, she complained of drowsiness, bad taste in her mouth, blurred vision, and thirst, although she was unable to drink water unless flavored with lemon and sugar She was seen at home, and no urine specimen was obtained. Blood pressure was 144/92, and toxemia of pregnancy was suspected. The next day symptoms were worse There was now thickened speech and hallucinations which progressed to disorientation She was admitted to the hospital, and her family was questioned They revealed that the patient had been showing a hunger for sweets for several weeks but within the past week had gone on a carbohydrate spree, ingesting unbelievable amounts of cola and sweet soda drinks She had had several cases of sodas in the past week and had devoured large quantities of ice cream in an attempt to assuage her thirst Mental confusion had come on gradually so that her history and complaints were completely unreliable

On admission to the Hospital on May 23, 1947, the patient was completely disoriented, had had no food for two days, but had no past history of either renal disease or diabetes Examination revealed a blood pressure of 97/50, pulse 140 and regular There was no abnormal odor to the breath. The eyeballs were soft General physical examination was otherwise negative except for a seven-months pregnancy No fetal heart could be detected at any time during hospitalization and had last been heard early the day before admission

Urinalysis showed sugar 4 plus, no acetone, no diacetic acid, albumin faint trace Blood sugar was 1,363 mg per cent at 3 P M Nonprotein nitrogen was 60 mg per cent

Thereafter, urine was obtained hourly from an indwelling catheter, with regular insulin, 20 units for 4 plus sugar down to 10 units for 1 plus Another blood sugar determination at 8 P M showed 1,100 mg per cent

Blood sugar determinations were as follows

May 23—	3 P M	—1,363 mg per cent
	7 P M.	—1,100
May 24—	3 A M	— 500
	9 A M	— 207
	11 P M.	— 450
May 26—	9 A.M.	— 375
May 28—	9 A.M.	— 333
May 31—	9 A.M	— 187

When the sugar level fell to 207 mg., insulin was stopped, and the patient was allowed a meal of orange juice, toast, and milk. On May 26 her mental confusion was almost over in spite of the rise in blood sugar She was allowed a diet of 100 Gm. carbohydrate, 50 Gm protein, and 50 Gm. fat, and insulin was ordered on a sliding scale of 35 units for 4 plus glycosuria down to 10 units for 1 plus On May 27 she was given bathroom privileges, and the diet was increased to 120 Gm. of carbohydrate, with 60 Gm. each of fat and protein. On May 28, she received 20 units of globin insulin with her regular insulin on the same sliding scale On May 30

globin insulin was increased to 30 units, and the regular insulin cut to 25 units for 4 plus On June 1, she was given 40 units of globin insulin, and the regular insulin was limited to 15 units at 7 30 P M

The urine during this entire period showed acetone only in occasional traces Sugar fell from a steady 4 plus to negative, and the patient was discharged from the hospital on June 1 on globin insulin, 40 units daily, and a diet of 120 Gm. carbohydrate, 60 Gm. protein, and 60 Gm fat At home, she tested her urine each morning and afternoon After two days insulin was dropped to 25 units Next day, all urines being negative, she took only 10 units, and this was her last dose of insulin

Although no fetal heart was detected from the time the patient became disoriented, labor did not ensue Finally, on June 20, she was readmitted to the hospital Her blood pressure was 98/50, urine was negative, and general health appeared good There had been no growth of the uterus, and it appeared definite that the fetus was dead Induction of labor with castor oil and seven doses of 1 cc each of nasal pituitrin was unsuccessful, so she was taken to the delivery room, and under aseptic condition the membranes were ruptured with difficulty About 100 cc of dark, brownish amniotic fluid was drained Three million units of penicillin in wax and oil were given before instrumentation and daily for five days thereafter Active labor started five and one-half hours after rupture of membranes, five hours and twenty minutes later she was delivered spontaneously of a 3-pound, 13-ounce stillborn which showed very little maceration The placenta appeared normal, showing no significant degree of infarction

Laboratory work-up during this hospitalization showed a blood sugar of 88 mg per cent, negative urine, normal complete blood count, and Rh positive blood Postpartum course was completely uneventful The patient had gradually gone on to a normal diet at home so the only regulation given in the hospital this time was elimination of some of the sweeter foods at the patient's own discretion. There was no return of glycosuria during hospitalization nor at any time since Urine is tested at weekly intervals

Comment

This case presented several interesting points. The blood sugar was the highest ever recorded at the United Hospital in Port Chester, New York. There was never any clinical evidence of diabetes, and the urine was sugar free until the weight climbed to over 200 pounds Fetal heart was heard after the onset of symptoms so diabetes cannot be considered to have been precipitated by failure of the fetal pancreas The most interesting clinical observation was the fact that this severe diabetic state came on as rapidly as it did, in a patient who was under continuous observation, including frequent urinalyses and, when the sugar did appear in the urine, the highest acetone was one plus with no diacetic acid Another point is the fact that, following termination of the acute episode, the whole picture cleared to the extent of the patient having no further evidence of diabetes mellitus I look upon this as a case of acute pancreatic failure due to severe pituitary dysfunction

The patient was seen in consultation by Dr Morton Ryder, who has reviewed this report Dr Ryder spent considerable time both with the patient and in the laboratory, and it was his patience and guidance which resulted in her apparent cure

Summary

A case of severe, perhaps total pancreatic failure during pregnancy in a patient with no previous or subsequent diabetic history is presented, with apparent cure following fetal death

275 Harrison Avenue

NEW TYPE OF INSULIN AIDS DIABETICS

A long-acting insulin which reduces the number of injections needed by diabetics has been developed, according to an article in the October 1 issue of the *Journal of the American Medical Association*

Duration of blood sugar lowering action of the new modified protamine insulin (NPH-50) is 28 to 30 hours, while that of other kinds of insulin is six, eight, 15, and 72 hours according to Dr Priscilla White of Boston, Massachusetts

In 95 per cent of the 336 persons with severe diabetes to whom the new insulin was administered, results were as successful as, if not more so, than those from separate injections of crystalline and protamine zinc insulin

In 5 per cent of the group, a single injection of the new insulin was less successful in controlling diabetes than were separate injections of these two insulins These failures included insulin-sensitive adults, diabetic children under five years of age, and patients whose requirements for long-acting insulin were small compared with their requirements for quick-acting insulin

Regulation of diet and exercise is a necessary adjunct to treatment with the new insulin

AUREOMYCIN IN THE TREATMENT OF VIRUS PNEUMONIA

RICHARD B CUTHBERT, JR , M D , Canastota, New York

(From the Lenox Memorial Hospital)

WHILE it is becoming generally agreed that aureomycin is of marked value in the treatment of primary atypical and virus pneumonias most of the cases reported to date have been in adults. Schoenbach and Bryer in their series of 13 cases present two in children of ten years of age, and Kneeland *et al* in their series of ten cases include one of a child of eleven [1,2] In view of this scarcity of reports on children, it is felt that the following case may add to the total experience and be of service in evaluating the management of younger patients with this antibiotic The diagnosis in this case depends largely on the criteria outlined by Kneeland *et al* and by Appelbaum [2,3]

Case Report

S C , a girl, age eight, weighing 65 pounds, complained of an ache in her neck on January 27, 1949 It was found that she had a temperature of 100 F but otherwise there were no physical signs She continued to run a septic type of temperature but did not develop any physical signs until January 29 when she began to exhibit a dry, hacking cough A chest x-ray taken on this date showed a small area of patchy infiltration in the lower lobe of the right lung The patient was started on penicillin therapy This antibiotic was discontinued two days later (January 31) after administration of 600,000 units It was discontinued because the temperature had continued to spike, having reached a peak of 103 6 F , and because repeat x-ray of the chest on this date showed an extension of and an increase in the opacity of the involved area. There were no symptoms other than the nonproductive cough and the fever and no physical signs other than a slight diminution in resonance over the right base posteriorly The child was treated symptomatically until February 3, on which date x-ray of the chest showed consolidation involving almost the complete lower lobe of the right lung, with general increase in the root markings of both lungs (Fig 1) It was felt that the child was suffering from a virus type of pneumonia, and this diagnosis was supported by a positive cold agglutinin test in titer of 1 64

Aureomycin therapy was started on a dosage of 0 5 Gm. every six hours, which is approximately 66 mg per Kg of body weight per day Temperature reached normal sixteen hours after the institution of the therapy and remained there or below for the rest of the course of the illness X-ray taken forty-eight hours after the start of the therapy showed almost complete disappearance of the consolidation (Fig 2), and a plate taken ninety-six hours after the first dose of the aureomycin showed only patchy infiltration in the area that had been consolidated when the first dose was given

The aureomycin was continued on the original dosage schedule (0 5 Gm every six hours) until the child had received a total of 12 Gm. of the antibiotic Her temperature remained normal At no time were physical signs elicited other than the septic temperature and the relative dullness at the right base posteriorly No symptoms were noted other than the usual reactions to temperature changes and the hacking cough This became somewhat looser on the fourth day after aureomycin but continued to be unproductive The child was allowed out of bed on the seventh day after aureomycin was started, and she returned to school on the

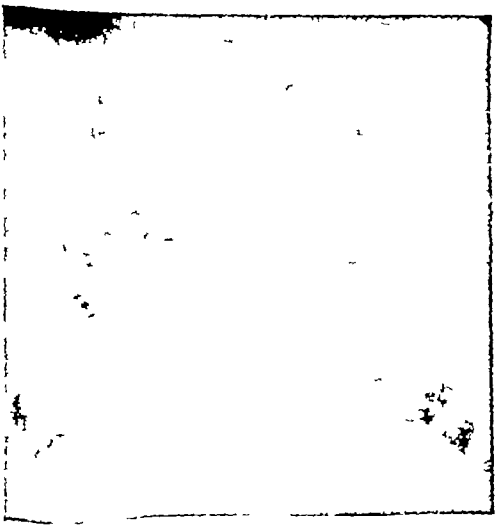


FIG 1 X-ray taken on February 3, 1949, prior to administration of aureomycin

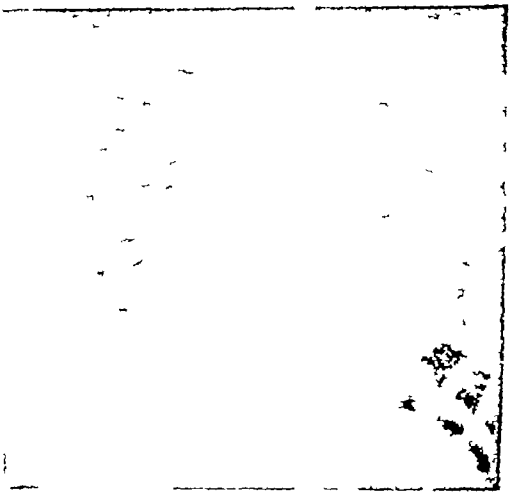


FIG 2 X-ray taken on February 5, 1949, after administration of 4 0 Gm aureomycin

eleventh day after its institution, the eighteenth day of the illness

Laboratory examination on February 1, 1949, was as follows Urine entirely normal, erythrocyte sedimentation rate (Wintrobe) 11 mm per hour, white blood cells 7,000, polymorphonuclears 54 per cent, nonfilamented forms 13, and lymphocytes 41 On February 3, the cold agglutinin test was positive in a dilution of 1 64 *On February 4, the white* blood cells numbered 8,500, polymorphonuclears 56 per cent (nonfilamented 21), and lymphocytes 34 per cent On February 9, there were 4,600,000 red blood cells, 13 8 Gm hemoglobin, 9,000 white blood cells (15 nonfilamented), and 40 per cent lymphocytes On February 15, the cold agglutination test was positive in a dilution of 1 256

Observations on the reaction to aureomycin were as follows After the child had received 1½ Gm of the aureomycin, she complained of nausea which lasted for two hours She did not vomit About an hour after taking the dose that brought the total dose to 4½ Gm , the patient suddenly vomited without having been previously nauseated A yellowish color was noted in the vomitus, and it is felt that she lost some of the medication at this time There were no subsequent attacks of nausea or vomiting It was noted that in each of the above episodes, the medication had been given when the patient's stomach was empty At other times she did not seem to be upset by the medication After the total dose of aureomycin had reached 5 Gm , the patient's stools became softer than normal, but there was no true diarrhea There were no other signs or symptoms that could have been construed as toxic reactions to the medication, and it will be noted that no anemia resulted from its use

Summary

1 A case of virus pneumonia in a child of eight years is reported Aureomycin therapy was employed with rapid and very satisfactory results

2 Aureomycin was given in doses of 0 5 Gm. every six hours The dosage was not reduced as the illness progressed, and the total dose of the medication was 12 Gm The medication was well tolerated in relatively large doses, and no significant toxicity was noted

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USE RADIOACTIVE COMPOUND TO CONTROL RARE BLOOD DISEASE

Control of the rare and previously fatal blood disease, polycythemia vera, a condition in which the body manufactures red blood cells too rapidly, was reported by Dr John H Lawrence of the University of California, Berkeley, in the September 3 issue of the *Journal of the A M A*

In the treatment developed by Dr Lawrence and his colleagues, a compound (sodium radiophosphate) containing radioactive phosphorus is administered This chemical collects "to a pronounced degree" in bone, bone marrow, and some rapidly growing tissue and apparently inhibits red cell production

Persons treated for polycythemia vera with the radioactive compound now have as favorable an outlook as do those treated for sugar diabetes with insulin or those treated for pernicious anemia with liver, Dr Lawrence says He bases his conclusion on a ten-year study of the treatment of 172 patients

Average age at the onset of the blood disease in the series of patients was 50 7 years, and the average age of those patients who died was 67 years. This is nearly a normal life expectancy for persons in this age group, Dr Lawrence points out

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OPERATION FOR GANGRENE REVERSES BLOOD STREAM

A new operation that "runs the blood stream in reverse" was announced recently by Wayne University physicians seeking a better treatment for gangrene of the leg

Working on the treatment are Drs Charles Johnston, E S Gurdjian, Prescott Jordan, John E Webster, and Gordon H Scott, *acting dean of the* Wayne Medical School

The operations, the first of which was performed last winter, are carried out by Drs Johnston and Jordan in Receiving Hospital Dr Jordan said the operation had been performed fourteen times with "encouraging" results

The operation consists of channeling blood from an artery in the thigh into a vein Normally, blood in the vein flows toward the heart, but after it is tied to the artery, the blood flows away from the heart to the affected limb *The reversal is possible because* arterial blood flows faster than venous blood can displace it —*New York Times, September 3, 1949*

PRIMARY TUBERCULOSIS OF THE PAROTID GLAND TREATED WITH STREPTOMYCIN

JOSEPH H HERSH, M D , New York City

TUBERCULOSIS of the parotid gland is not common. Cases of both primary and secondary involvement have been reported in the literature during the last fifty years In 1932, Berman and Fine reviewed the literature to date and reported an additional case [1] Since then nine additional articles have appeared, each reporting from one to six new cases.[2-10] Treatment has varied, and good results have been reported with surgical extirpation, as in Berman and Fine's case No case report could be found in which streptomycin or other antibiotic agent had been employed

Case Report

S R , a nineteen-year-old white boy, complained of a swelling on the left side of his jaw It had been noticed about six weeks previously and had gradually increased in size It was not tender or inflamed

The patient's past history contributed nothing pertinent to the present complaint He did state that his father had pulmonary tuberculosis, that he was under treatment by pneumothorax for two years, and that he lived at home

Examination revealed a ruddy-faced, obese young man On the left side of his face, just below the lobe of the ear and covering the angle of the jaw, was a subcutaneous mass that was doughy in character, unattached to the skin, and sharply demarcated posteriorly but blending with the parotid gland anteriorly It measured 1 inch in diameter and protruded 1/4 of an inch above the surrounding skin surface. A 16-gauge aspirating needle was plunged into the mass, but nothing could be pulled back into the syringe

The general physical examination, chest roentgenogram, complete blood study, serologic examination, and urinalysis disclosed no abnormalities

The presumptive differential diagnosis was as follows (1) mixed cell tumor of the parotid gland (2) chronic, infectious granuloma of the parotid (tuberculosis, Hodgkin's disease, etc), (3) parotid gland malignancy

On April 10, 1947, under local anesthesia (procaine 1 per cent) a curved incision was made, starting in the preauricular crease and extending downward and forward under the angle of the mandible The skin was freed and reflected in two flaps posteriorly and anteriorly to uncover the tumor mass This was picked up posteriorly where it was clearly defined and well encapsulated By blunt dissection it was freed anteriorly until it was found to merge with and become indistinguishable from the parotid gland The tumor mass was pale gray, friable, and had scattered yellow nodules Because a total gland excision had not been contemplated, the freed mass of tumor tissue was cut away, and the wound was closed with interrupted black silk sutures

Wound healing was uneventful The parotid enlargement was persistent

Microscopic examination revealed the tissue to be made up of hyperplastic epithelioid tissue which replaced the usual parotid structure that was represented merely by occasional clumps of tubules (Fig 1) There were scattered tubercles with occasional giant cells and caseating centers Large areas of caseation were also seen Diagnosis was tuberculosis of the parotid gland



FIG 1 A high power photomicrograph displaying a residuum of parotid tubules, the epithelioid hyperplasia, and the adjoining necrosis

Streptomycin therapy was instituted, 1 Gm per day being administered for a period of six weeks The parotid mass gradually receded At the end of the sixth week it was no longer evident The patient has been examined at frequent intervals for a period of two years, and there has been no sign of recurrence

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Special Article

ROLE OF COUNTY SOCIETY MEMBERS IN MEDICAL LEGISLATION

FREDERIC W HOLCOMB, M D , F A C P , Kingston, New York
(*Vice-Speaker, Medical Society of the State of New York*)

EVERY physician who is engaged in the practice of medicine in our State should realize that there has been a tremendous increase during the past few years in both the problems and the volume of legislation relating to public health, workmen's compensation, hospital administration, care of the indigent and aged, and many other fields of concern to the members of our profession These problems are of concern to us, not only from a medical, but from an economic standpoint as well The trend toward political or bureaucratic medicine is developing rapidly, and we must strive to the best of our ability to guide and modify this trend so its development will be in the best interests of sound medical practice The results of our legislative efforts for the State Medical Society during the past year were rather disappointing in several respects This leads us to attempt an analysis of our program and to try to correct the weaknesses in our organization

In our State Society we have an approximate membership of 22,000 physicians, as compared with a voting population of about six million in New York State It can easily be seen, therefore, that if our Society membership represents only that relatively small number of votes, the disproportion must be compensated for by each member extending his or her influence to a large number of the voting population We must realize that legislators are elected, re-elected, or defeated by votes, and votes alone They are in office as possessors of political acumen, and their actions and opinions are guided by votes and potential votes, and not, as are ours, by love or devotion to the science of medicine We must also realize that many groups much larger than ours, such as labor unions and large corporations, employ representatives or so-called lobbyists in Albany These representatives attempt to influence legislation in which their groups are interested, and most of them are supplied with ample funds for expense accounts and entertainment to assist them in presenting their viewpoints to Senators and Assemblymen It is apparent, therefore, that in order to carry on a worth-while program, with the twofold purposes of informing the legislators of our opinions on medical legislation and keeping our membership alerted on matters pertaining to them, we must increase both our personnel and our budget

We must also recognize the fact that the legislators in the State capitol are in many instances under the influence of several groups having not only varied interests, but often very conflicting ones An able and conscientious legislator is often confronted with different, even opposite opinions regarding certain measures and is subjected to pressure by various labor, business, and professional organizations This makes it necessary for him to weigh carefully the various possibilities before choosing his stand on a given question, in the hope of making laws which are fair and beneficial to the greatest number of people

What can be done about the apathy and indifference on the part of our physicians concerning medical legislation? I feel that the present set-up in the State Society's organization is basically adequate but must be expanded to meet the ever-increasing needs Our weakness lies in the indifference and complacency of the average practitioner, who seems to expect a very small group of men to carry on the work in this field for 22,000 members. This group on whom the burden now falls includes our only legislative officer in Albany, Dr Robert R. Hannon, the State Legislative Committee, and the chairmen on legislation from the respective county societies It is only by kindling the interest and efforts of each and every practicing physician that we will be able to influence the votes of our Senators and Assemblymen

Every legislator with whom I have discussed this matter admits readily that the medical practitioner possesses tremendous potential political influence. As a rule, the doctor occupies a position in the community that commands respect for his opinions—particularly on matters regarding public health and medical care, but—and the legislators seem equally unanimous in this observation—the doctors are apparently too indifferent or too lazy to exercise even a small fraction of their influence Until this situation is altered, I repeat that it is both futile and unfair to expect a small group of men to carry on the work of 22,000 Before any of us complain to our county societies about adverse legislation being passed, or medically beneficial laws being defeated, let us question ourselves along these lines How much time and effort have *I*, as an individual, expended in the past few years, toward influencing the passage or defeat of medical legislation in New York State? Your State Society will have the organization capable of informing you as members on matters pertaining to medical and public health legislation, but, without your *active* participation in the program, it can do no more in the future than it has in the past The proper expansion of our program in Albany depends largely upon your efforts to influence the passage of beneficial legislation

To summarize, I offer the following suggestions

1 Each physician in the State Society must realize that the medical legislation affects him, both professionally and economically

2 Let each physician counsel his patients and associates wisely and unselfishly concerning matters of important medical legislation

3 A special meeting should be called in each county society following the State Society's Legislative Conference in Albany At this time the respective county societies should discuss and pass resolutions on the most important bills

4 Each Senator and Assemblyman in the district should be promptly informed as to the Society's opinions and actions on such bills

5 The Legislative Committee of the State Society should send promptly to every physician pamphlets giving a short analysis of the most important bills These pamphlets, for distribution to the lay public, may well influence patients and friends to inform their representatives in Albany as to their opinions on medical legislation

Presented at the Forty third Annual Meeting of the Fourth District Branch Medical Society of the State of New York Friday September 16 1949 Saranac Lake New York

SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting on September 8, 1949, the Council considered the following matters, taking action as indicated

Secretary's Report

Remission of Assessments—Remission of annual assessments was voted on account of service with the armed forces for two members for 1949 and two for 1948, and, on account of illness, eleven for 1949 and one for 1948 Eight War Memorial assessments were remitted because of illness or service with the armed forces

Communications—1 Letter from Mrs Leon Gross, Fort Worth, Texas, as follows

Dear Sirs

Enclosed please find my check for one hundred dollars ($100), given as a memorial to Dr Albert D Mayer of the Hotel Surrey, your city, who passed away July 28, 1949

Also a check ($100) as a memorial to Dr A D Mayer from R J Mayer

It was voted that the disposition of these funds be left to the discretion of the Board of Trustees

(The Board of Trustees voted to assign these generous gifts to the War Memorial Fund)

2 Memo from Dr George F Lull, secretary and general manager, American Medical Association

As of July 28, 1949, our records show that your association had remitted 41 per cent of the twenty-five dollar assessment Its relative standing in per cent collected among the 53 constituent societies was 47

It was voted that the matter be referred to the Public Relations Committee to devise means of collecting the outstanding assessments

3 Letter from Mr William C Stronach, executive secretary, The American College of Radiology, dated August 1, 1949

The American College of Radiology views with alarm and dismay all proposed programs relating to the distribution of medical services which place the diagnostic aspects of medicine in a category apart from the general practice of medicine

The Chair referred the letter to the Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE for publication

4 Letter from Mr H H Barton, president of the Chamber of Commerce of North Creek, New York, July 20, 1949, expressed thanks that Dr Jacques Grunblatt is beginning practice at North Creek "Yours was a valuable service to our community and we thank you sincerely"

It was voted to refer this to the Public Relations Committee and to the Managing Editor of the NEW YORK STATE JOURNAL OF MEDICINE

5 As a result of a letter from a member protesting refusal to renew his participation in group malpractice defense insurance,

It was voted that he and the chairman of the Malpractice Insurance and Defense Board be invited to appear at the next meeting of the Council.

6 Two letters from the U S Pharmacopoeial Convention, thanking the Society for contribution of $100 to their building fund, were received

7 Letter from Dr Ernest B Howard, June 29, 1949, including resolution from the American Medical Association and letter from Dr L Fernald Foster, secretary, Michigan State Medical Society, in regard to H R Bill 2893

The Secretary reported that appropriate action had been taken during the summer

8 Letter dated July 5, 1949, from Commissioner Robert T Lansdale, New York State Department of Social Welfare, expressing appreciation of work done by Dr Christopher Wood former chairman of the Committee on Public Medical Care

9 Letter June 28, 1949, from Dr Albert Vander Veer, 2nd, secretary of Medical Society of the County of Albany, recommending changes in the Workmen's Compensation Fee Schedule, was referred to the Workmen's Compensation Committee

10 Letter July 29, 1949, from Dr Joseph A Lane, secretary, Medical Society of the County of Monroe, re so-called Linowitz Plan

By action of the Comitia Minora on July 11 this letter is addressed to all secretaries of county medical societies in New York State, calling to your attention the Linowitz Plan, which seeks to induce voluntary health insurance

The Comitia Minora, feeling that this is a positive step to make voluntary insurance possible to a greater number, endorsed it unanimously A copy of the plan is included herein, and we hope that your society after due consideration will concur with the Monroe County Medical Society in taking similar action

It is our hope that the Medical Society of the State of New York will join with other state medical societies in endorsing this proposed plan

It was voted to refer this to the Committee on Economics

11 Letter from Dr Robert H Hannon, Executive Officer, requesting additional appropriation of $152 58 for meetings of executive committees of district branches (The original appropriation was $500 but unexpected attendance and increased costs had raised the expenses)

It was voted that the Board of Trustees be requested to appropriate $152 58 to eliminate the deficit

(The Board of Trustees, after due consideration, voted to meet this unexpected expense)

12 The request of the Medical Society of the County of Steuben for remission of Dr George Allen Sisson's assessment for 1949, because of his residency for three years, was denied (The Council does not have power to remit assessments for any cause except illness or service with the armed forces)

13 Letter August 22, 1949 to Dr James R Reuling from the Oklahoma Division of the American Cancer Society, through the New York City Cancer Committee of the American Cancer Society, inquiring amount spent during the year by the State Society on the study and control of cancer was referred to the Committee on Public Health and Education

14 Letter July 11, 1949, from Mr Leslie P Huey of the Eisenstadt Manufacturing Company, St. Louis, regarding award to physicians who have been practicing fifty years or longer

After discussion, *it was voted* to refer this to the Public Relations Committee for study and report

15 Letter, dated September 1, 1949, from Miss Mary Donlon, chairman of the Workmen's Compensation Board

Dear Doctor Anderton

On my return from Europe I find your letter of July 14, which was acknowledged by my secretary on July 15

I am interested to learn that the House of Delegates of the Medical Society of the State of New York has recommended approval of thoracic surgery as a separate specialty

This recommendation indicates that, in the judgment of the House of Delegates, specialists in general surgery are not qualified in the operative procedures of thoracic surgery and that disabled workers in need of thoracic surgery should be entrusted only to the care of specialists in that field May I therefore request your cooperation in defining the area of the new specialty from which specialists in general surgery should be excluded

For this purpose may I suggest that the President designate three members of the Society who are especially qualified in thoracic surgery and also three members who are qualified as specialists in general surgery, but not in thoracic surgery, so that I may consult with them and have the benefit of their recommendations as to the field in which operative procedures by general surgery specialists should not be recognized under the Workmen's Compensation Law

After discussion, *it was voted* that the President be authorized to appoint such committee

16 Correspondence between Mr Robert Dwyer of *The News*, Dr Drabkin, secretary of Nassau County Medical Society, Mr Richard W Clarke, executive editor, News Syndicate Company, Inc, and Dr Anderton in regard to an article entitled "M D 's Unorthodox Ideas Give Heart Patients Hope," written by Mr Dwyer

It was voted that the President answer Mr Dwyer's letter according to the sentiments expressed by the members of the Council and also extend to him an invitation to meet with the President and the Public Relations Bureau of the State Society for a friendly discussion of the point at issue

It was voted that the entire matter be referred to the Nassau County Medical Society for discussion in open membership on the floor

17 Letter dated July 18, 1949, from Group Health Insurance, Inc , requesting consideration and approval of its medical and surgical care insurance plans by the State Medical Society

After discussion, *it was voted* that this be referred to the Committee on Economics with the privilege of consulting with other committees

Your Secretary has attended all committee and board meetings

A question has arisen as to whether or not the Council desires to continue the policy of remitting the annual assessment for members who have remained in the armed services since World War II The 1941 House of Delegates voted power to the Council to make such remissions upon recommendation of a member's county society

It was voted to continue the policy of remitting the dues for members who are temporarily in the armed services

Appointments authorized by the Council and made by the President.—Dr Milton G Potter, Buffalo, to represent the Medical Society of the State of New York at meetings of the Board of Directors of the Mental Hygiene Clinic for the Study of Alcoholism University of Buffalo School of Medicine

Dr Charles Solomon, Kings, to represent the Medical Society of the State of New York at the 1950 meeting of the Committee of the U S Pharmacopoeia

Dr Carlton E Wertz, President-Elect, delegate to the annual meeting of the Vermont State Medical Society

Dr Masterson, with the approval of the Council, appointed Dr James R. Reuling and Dr J Stanley Kenney representatives to the annual meeting of the Medical Society of the State of Pennsylvania, September 26 to 29 in Pittsburgh

The Treasurer's report was accepted

Reports of Committees

Legislation.—Dr Dattelbaum, chairman, presented the following report

The Committee recommended that the Albany staff be augmented by an additional legislative expert

After discussion by the Council, *it was voted* to carry out this recommendation

It was voted that the matters of interviewing individuals for the position of legislative expert and remuneration be referred to the subcommittee of the Committee on Legislation, consisting of Drs. Masterson, Hannon, Ayers, Dattelbaum, and the legal counsel

The Legislative Committee recommended that all news releases be sent to Dr Hannon's office to be checked by him This was discussed

It was voted that this should be accomplished by the Legislative Committee working in conjunction with the Public Relations Committee

Subcommittee on Lien Law appointed as follows Drs Kottler, Hollis, and Edwards (Dr Hannon said he would like to have this subcommittee see Senator Friedman and discuss with him any recommended changes in last year's bill)

The following subcommittee was appointed to discuss with the other interested professions an injunction bill for appropriate professions, to be introduced in the 1950 Legislature, Dr Holcomb chairman, Drs Dickson and Lochner, Mr Bell, Mr Martin, or Mr Clearwater (legal counsel)

The committee recommended that Mr Martin counsel, should look into the matter of the legality hospitals practicing medicine

The Legislative Committee recommended that the Council suggest to county societies the importance of appointing to their legislative committees only members interested in the work and that they have a vice-chairman trained to take over the position of chairman, if for any reason the latter could not continue

The Committee also recommended that the county societies be notified that the special legislative meeting should be held once a year by each county society, after the annual meeting of the chairmen of county society legislative committees Each county legislative chairman should draw up an agenda and discuss the most important bills

Approval was voted

A subcommittee consisting of Dr Kottler, chairman, and Drs Needham and Lawrence was appointed to contact radiologic societies about the proposed x-ray bill and endeavor to obtain approval.

Medical Indemnity Payment Introduction of legislation to preserve free choice of physicians under

oluntary medical insurance plans —It was suggested hat this matter be considered by the Council and lso discussed by the Medical Expense Insurance ubcommittee It was also recommended that the itter Subcommittee study the Panken Bill (Senate ntro 1231 of year 1949) and that no further action n it be taken, until approved by the Council

Workmen's Compensation Legislation affecting ounties having population of over one million —The Committee recommended that the bill to abolish the Medical Practice Committee be reintroduced following a conference between the chairman of the Workmen's Compensation Board and members to be appointed by Dr Masterson from Erie and Westchester Counties, and Dr Kenney No action was aken.

Group Practice —It was reported that the Legislative Committee will inform the House of Delegates hat, after serious consideration, it was decided that his is not the proper time to introduce the type of egislation proposed, which would attempt to harmonize the Workmen's Compensation Law and the Medical Practice Law as affecting group practice

Disability Benefits Law —The Committee recommended amendments be withheld for the present until it can be seen how the law works

The President requested the Committee to bring in an additional report at a subsequent meeting

Revision of the Medical Practice Act —The Legislative Committee recommended to the Council that committee be appointed to confer with the Department of Education about amending the Medical Practice Act

Approval was voted for the chairman to appoint this committee

Legislation Regarding Alcoholism —Dr Hannon read a letter from E H L Corwin, Ph D , of the New York Academy of Medicine (June 29, 1949), and a copy of his reply (July 15, 1949) He also referred to a memo received from Dr Milton G Potter, chairman of the Committee on Problems of Alcoholism. The Legislative Committee decided that this should be left to the Committee on Problems of Alcoholism and that action should not be taken until a report is received from Dr Potter's Committee

Re Osteopaths —Dr Hannon read a memo from Dr Nat Kanner of Brooklyn, suggesting that osteopaths be required to use the title "D O ", or the word "Osteopath" on all letterheads, signs, etc

The Committee suggested to the Council that this body recommend to county medical societies that all members use "M D " on prescription blanks, letterheads, signs, etc ,—also that the JOURNAL make a note of this fact

Introduction of Legislation Concerning Anesthesiology, Psychiatry —The Committee recommended that the Council appoint a committee to work with the anesthesiologists and psychiatrists in regard to legislation to be introduced in the next session of the Legislature

The Council *voted* to refer this to the Joint Committee of the Hospital Association of New York State and the Medical Society of the State of New York, and that a representative psychiatrist be invited to participate in the proposed discussions, as well as the members of the State Society's subcommittee of the above committee

Problems of Alcoholism.—Dr Potter, chairman, sent the following report

At a Committee meeting held in Buffalo, August 4, 1949, the following action was taken and Council approval is requested

1 That the policy of the Committee be Encouragement and aid to education, rehabilitation, proper legislation, and research in the problems of alcoholism.

2 *Education Policy* (*a*) Due to the poor results obtained last year from letters sent to the county societies by the chairman of this Committee, encouraging the formation of local committees on this subject, it is recommended that an appropriate letter, composed by the chairman of this Committee, be signed by the President and sent to each county society, an answer to be requested from each county society

It was voted that this be done if the letter is approved by the President

(*b*) That the President and the President-Elect when addressing district branch meetings and local county meetings emphasize the importance of the formation of these local committees This is recommended because it is not possible at this late date for members of this committee to get on the programs

(*c*) That the President be instructed by the Council to send letters to the various deans of the medical schools in New York State requesting information concerning the nature and extent of courses given on the Problems of Alcoholism A survey such as this is needed before suggestions can be offered by the Society

It was voted that the President request the chairman of the Committee to solicit this information

3 *Rehabilitation* (*a*) That the present limited New York State Pilot Demonstration Clinic Hospital program operated by the Medical School of the University of Buffalo, sponsored by the State Mental Health Authority, suggested by the Subcommittee on the Problems of Alcoholism to the Interdepartmental State Council and financed by Federal funds allocated to New York State under the Mental Hygiene Act, be supported and be greatly expanded to include 1 Experimental convalescent care for those patients no longer requiring active hospitalization but who cannot return to their home environment until a further period of rehabilitation is allowed, 2 An experimental long-term rehabilitation program to evaluate technics, values, and possibilities for those cases which require hospitalization rather than ambulatory treatment

Approval was voted

(*b*) That the Council approve the suggestions contained in a letter to Dr Hilleboe dated July, 1949, from the chairman of this Committee

Approval was voted

(*c*) That the Council approve the suggested State program for Alcoholic Addiction proposed by the Subcommittee on the Problems of Alcoholism to the Interdepartmental Health Council of the State of New York omitting Article 3 except the last paragraph, only after the initial pilot program has been expanded, perfected, evaluated, and its worth proved in the community for the care of patients in the various stages of the disease on a practical economic level.

Approval was voted

4. That the Council strongly objects to the action of the Advisory Council to the Department of Mental Hygiene of New York State in stopping the appropriation of Federal funds for the State Pilot Demonstration before it has really gotten under way The objection should take the form of a letter or a request for a hearing with the Governor only after failure to get results by personal interviews with key members of the Advisory Council to the Department of Mental Hygiene and the Governor's personal physician, by members of the Committee

It was voted to send this back to the Committee for further study and elucidation

5 That if there is failure to obtain continued Federal funds for this demonstration, legislation should be originated by the Interdepartmental Council of the State and the New York State Medical Society for a definite appropriation to carry out this initial program, prior to initiating legislation and an appropriation for a State-wide program

It was voted that this be referred jointly to the Committee on Problems of Alcoholism and the Legislative Committee

6 That the Interdepartmental Council of the State of New York (Dr Hilleboe, chairman) be notified by the President of the action taken by the Council upon the suggestions of the Special Committee on the Problems of Alcoholism

It was voted that the President request the Secretary to write to Dr Hilleboe

Constitution and Bylaws—Dr Reuling, chairman, reported that changes submitted by the Medical Society of the County of New York in their bylaws had been studied by members of the Committee and by the attorney, and as there was nothing inconsistent between them and the State Society's Constitution and Bylaws, approval was recommended

Approval was voted

Convention—The Convention Committee reported that the 143rd Annual Convention of the Medical Society of the State of New York was held at the Hotel Statler in Buffalo from May 2 through 6, 1949

Close to 2,500 registrations were recorded It is possible that some physicians who attended the scientific meetings on the lower floors did not register on the 17th floor of the hotel

The registrants were

Physicians	1,609
Guests (medical students, interns, nurses, medical technicians, dieticians, and others)	538
Exhibitors (technical)	335
Total	2,482

The Scientific Awards Committee conferred a First Award, Second Award, and Honorable Mention in two classes Clinical Research and Scientific Research Beribboned plaques were pinned on the winning exhibits and certificates of award sent to the winners

The following were the recipients

Clinical Research First Award—"Low Toxicity of Sulfonamide Mixtures," Dr David Lehr, New York Medical College, Flower and Fifth Avenue Hospitals, New York City, Second Award—"Etiologic Diagnosis of Heart Disease," Dr Charles A. R Connor, American Heart Association, Inc, New York City, Honorable Mention—"Gold Toxicology in Rheumatoid Arthritis," Dr Charles LeRoy Steinberg, Rochester General Hospital, Rochester

Scientific Research First Award—"Radio Isotopes," Nathan H Woodruff, Ph.D, Mr G William Morgan, and Mr Carroll N Bowman, Isotopes Division, United States Atomic Energy Commission, Oak Ridge, Tennessee, Second Award—"Sponge Biopsy A New Method in Cancer Diagnosis," Dr Sidney A. Gladstone, New York Polyclinic Medical School and Hospital, New York City, Honorable Mention—"New Method for Roentgen Anatomic Study of the Skull," Dr Lewis E Etter, Western State Psychiatric Institute and Clinic Pittsburgh, Pennsylvania.

Economics—Mr George Farrell, director, Medical Care Insurance Bureau, reported he had spoken on medical care plans before several meetings

Following the request made by the House of Delegates that further consideration be given to a uniform State contract for medical care insurance, Mr Farrell conferred with Dr A. H Aaron, chairman of the Subcommittee on Medical Expense Insurance and reviewed a comparative fee schedule and questionnaire on contract provisions of each plan, requested by the Subcommittee The questionnaire and comparative fee schedule were prepared by the Bureau and sent to all plans in New York State for return by September 1 This material is to be analyzed by the Bureau for presentation to the Subcommittee

Mr Farrell presented the semiannual report on the six plans approved by the Medical Society of the State of New York

The report was *approved*

Dr Azzari, chairman, reported on matters referred to the Economics Committee by the Council at its June meeting, as follows

Practice of Medicine by Hospitals and Colleges—That all Blue Cross and Blue Shield Plans in New York State be notified that the Medical Society of the State of New York recommends that Blue Cross discontinue offering medical services in pathology, radiology, anesthesiology, and physical therapy, and that Blue Shield Plans should pay for these expenses

Medical Indemnity Payments—Recognizing that contract restrictions under certain voluntary insurance plans tend to deny or restrict the free choice of physicians, the House endorsed in principle legislation to preserve free choice of physicians especially in cases where there are indemnity payments under voluntary medical insurance plans The Committee discussed this particular mandate of the House and recommends its approval by the Council

Approval was voted

Prepaid Medical Insurance, Voluntary Sickness and Hospital Insurance—The House voted to urge the Blue Cross and the Blue Shield to devise plans to offer to the public, particularly the low income segment, comprehensive medical and hospital coverage, including preventive and diagnostic services The Committee on Economics sees no reason why this should not be carried out and so recommends

Approval was voted

Public Medical Care—The House recommended "that the Federal or State government assist the indigent, including all those who are eligible for old age assistance, to obtain medical care by purchasing adequate insurance from existing prepayment hospital and medical plans, provided that all voluntary health insurance programs will be entirely in the hands of the State agency acting in consultation with the State Hospital and Medical Care Council and Regional Hospital and Medical Care authorities set up in health regions within the State" This matter was referred to the chairman of the Subcommittee on Public Medical Care, Dr Stephen R. Monteith, and the Committee on Economics has not as yet received reply The Committee on Economics, however, of its own accord recommends the approval of this resolution

Approval was voted

United Medical Service Ceiling Limits—In regard to a letter addressed to the President of the United Medical Service and referred at the last Council meeting to the Committee on Economics with refer

ence to raising the ceiling limits, the Committee on Economics feels that this should carry an endorsement, first, by each individual county society, and that the Committee on Economics should simply endorse this in principle

Approval was voted

Practice of Medicine by Hospitals and Colleges—The House voted (1) "that the attention of hospitals and teaching institutions be drawn to the opinion of the State Society that such bodies should not practice medicine in any of its branches for pecuniary gain" (Of course writing a letter telling them that is our opinion is very easy to do), (2) "that a conference be held with the deans of medical colleges and representatives of hospitals and teaching institutions to formulate a program which is in the public interest", (3) "that such institutions be requested to take no further action toward entering the practice of medicine until after such a policy has been formulated"

The Committee on Economics have discussed this matter and feel that this is a very, very large order, and we should have a lot of discussion by the Council before this conference is called

After discussion, *it was voted* that the Council defer action on this matter until the Committee on Economics can present a plan regarding such a conference, have an agenda, and discuss what their position would be at such a conference

Ethics—Dr James R. Reuling, chairman, reported "The Council referred to the Committee on Ethics the question of the revision of our Code of Ethics. I have sent to the officers and to the members of the Council the new Code of Ethics as adopted by the American Medical Association and in position alongside of it our corresponding sections. There will be a meeting of the Committee soon I would like very much to have suggestions or recommendations from all councilmen and officers before the meeting of that Committee"

Finance—Dr James R Reuling, chairman, reported as follows "The Committee is endeavoring to prepare the budget for next year with supporting data for each line item in the budget so that the officers, Council, and Trustees may be familiar with all items. As this is an entirely new procedure, considerable difficulty is being encountered and it is felt that again this year the budget may be late for proper study by members of the Council and the Board of Trustees

"It is recommended and I should like the approval of the Council directing the Finance Committee to proceed with the preparation of the 1951 budget early in the year 1950

"If this is approved, it is suggested that all department heads be instructed to cooperate in order that the budget for the following year, 1951, will be ready and in the hands of the Council and Trustees immediately after the close of the 1950 Annual Meeting"

Approval was voted

Publication.—Dr George W Kosmak, chairman, reported that the Committee met on September 7, and the publication date of the *Directory* was discussed. The revision of the form of the *Directory* was referred to a special subcommittee to report at the next Committee meeting He called attention to the prompt issuance of Part II of the September 1 issue of the JOURNAL, which contains the minutes of the 1949 House of Delegates meeting

Public Health and Education.—Dr Theodore J Curphey, chairman, reported that he had attended [illegible] of his various subcommittees and arranged for postgraduate instruction and teaching days for several counties

Subcommittee on Cancer—Dr George Adie, chairman, reported that the Subcommittee recommended preparation of a plan for formation of detection centers, in conjunction with the State Department of Health The Department of Health will undertake its publication, but the Subcommittee felt the State Society should pay part of the printing expense

It was voted that the $200 for the publication of this cancer bulletin be expended from the budget of the Committee on Public Health and Education (and if there is not sufficient money remaining in their budget that they so report at the next meeting of the Council)

He also reported that a plan for the revision of the Cancer Manual was being discussed

Medical Film Review—Dr Curphey reported that there was a meeting of the Medical Film Review Board in Albany on August 2 with Dr Larimore of the State Health Department, at which Dr Hughes, Dr Norris, and Dr David S Ruhe, the director of the Film Review Board of the Association of American Medical Colleges, were present Dr Norris, chairman of the Subcommittee, makes the following recommendations "I would recommend that this board be made up of a member from Buffalo, Rochester, Syracuse, Albany, and Metropolitan New York The function of this board would be to establish policy, both regarding selection of films and promotion It is suggested that each of these men would be chairman of a local Film Review Board, the total membership of which would come from the town in which he was located and the composition of which would be determined by him The function of each local committee would be to review the titles already in our present catalog in one or two specialties and to select from this list those films which warrant reviewing, and to review those films, preparing a report and their evaluation These reports would form the basis for future selection of films for the library and for a descriptive catalog New films, as they appear, would be similarly reviewed We would suggest that Dr David S Ruhe, director of the Film Review Board of the Association of American Medical Colleges and Dr Granville Larimore be made advisory members of this committee" Your Chairman heartily endorses this suggestion.

It was voted that Dr Ruhe and Dr Larimore be made advisory members of this Subcommittee

Rehabilitation and Physical Medicine—Dr Curphey reported that there was a meeting of the Subcommittee on September 1, 1949, at which Dr Morton L Levin and staff from the State Health Department presented an outline of the proposed program for cerebral palsy

Following a general discussion, it was resolved that we endorse in principle the program presented by the State Health Department, but feel that, in the long-range plan, the most important facet is that of adequate training of physicians and ancillary personnel and that such training should be on a broad base with experience in both in- and outpatient facilities, taking into consideration the physical, psychologic, social, and educational problems, and that another important facet is general education of the medical profession, both general practitioners and specialists, in the problems of cerebral palsy, so that they will be familiar with the handling and proper channeling of these patients This Subcommittee will try to carry on such a program within the framework of the State Medical Society

Further discussion centered around the organization of primary and secondary treatment centers It was resolved that when the investigation, which is now being made by the State Health Department, is completed, this Subcommittee will review the procedures and try to formulate basic principles that should be followed in primary and secondary treatment centers

It was recommended that a Subcommittee of the Subcommittee on Rehabilitation and Physical Medicine be formed and that it be designated as Subcommittee on Cerebral Palsy and consist of Dr George G Deaver, chairman, with Dr Alfred Lane and Dr Austin J Canning This committee has been charged with studying the Cerebral Palsy Program of the State Health Department and it is expected to report at the next meeting

Approval was voted

It was further resolved that the Council of the Medical Society of the State of New York be requested to give the Subcommittee on Rehabilitation as much of the teaching day as possible at the next meeting of the Medical Society of the State of New York so that it could put on a dynamic clinical demonstration for both general practitioners and specialists to show procedures that can be carried out in their own practices in the management of the chronically ill and disabled—paraplegics, hemiplegics, amputees, neurologic conditions, old cases of poliomyelitis, etc

Approval was voted

The Subcommittee further requested that the NEW YORK STATE JOURNAL OF MEDICINE publish a series of editorials highlighting the problem of rehabilitation

This was referred to the Publication Committee

It was finally resolved at the request of the State Health Department that the Subcommittee urge the cooperation of the profession in following the mandate of reporting all cerebral palsy cases, feeling that it would be of great benefit both to the public and to the profession

This was referred to the Publication Committee

Diabetes—Dr Curphey presented a communication to be sent to secretaries of all county medical societies which would serve to supplement with concrete suggestion a recent communication sent to our county medical societies by the American Diabetes Association, inviting each of these to take an active part in the Diabetes Detection Drive (D D D) which started its year-round program during Diabetes Week, October 10 to 16 The committee is anxious that our own State make a showing in the national picture befitting its prestige

After discussion, *it was voted* that the county medical societies be officially apprised of the action of the State Society approving of the plan, and also the approval of the State Society regarding the plan for diabetes teaching programs

Blood Banks—Dr Curphey stated "Your Subcommittee on Blood Banks had a meeting last night at the Roosevelt Hotel in which certain recommendations were made It is felt that the State Society should give its support to the revised Westchester Plan, in which cooperation is expected between the county medical society and the Red Cross It was felt that that would in itself represent the sort of pilot plan to take care of the problems of a large suburban county

"The Subcommittee also felt that, as 50 per cent of the population of the State resided in rural areas, a comparable experiment might be made in Glens Falls, a fairly typical sampling of the average rural area, and that the experiment be differed somewhat in that instead of having the avowed cooperation of the Red Cross they develop the program purely on a local basis without aid from the Red Cross

Approval was voted

Program of the New York State Academy of General Practice—Dr Curphey stated that Dr I . Brightman requested "endorsement on the part of the State Medical Society of the program that is being put on by the New York State Academy of General Practice, which represents the first annual meeting of this group Dr William Buecheler of Syracuse is the chairman this year He has organized this program, and Dr Brightman assures me will be good as outstanding men are going to speak The State Department of Health is willing to approve, provided the Medical Society gives its approval first"

Approval was voted

Arrangements for Teaching Day at Next Annual Meeting—"In accordance with the resolution of the House of Delegates charging this Committee join with the Subcommittee on Problems of Alcoholism and the State of New York Department of Health your chairman has been in communication with Dr Milton G Potter, chairman of the Committee on Problems of Alcoholism (a committee of the House of Delegates) for the purpose of arranging a symposium Dr Potter in conference with Dr Brigham of the New York State Department of Health has agreed that a panel discussion on "Chronic Alcoholism as a Medical Problem" instead of a symposium would promote more interest and discussion at the 1950 Teaching Day"

Public Relations—Dr Floyd S Winslow, chairman, reported activities and immediate objectives

Veterans Administration, Liaison with the—Dr Anderton reported for Dr Bauckus A joint meeting of the Committee on Liaison with Veterans Administration and the Board of Directors of Veterans Medical Service Plan of New York, Inc , was held September 7, 1949 Dr J C Harding and Dr Jacques of the Veterans Administration Washington Office were present

The present contract with Veterans Administration expires October 1, 1949, and a new contract eliminating the services of coordinators, sent by Dr Magnusen of the VA offices, was discussed

It was the feeling of the group that coordinators were necessary for the proper control and administration of the plan, and at a previous meeting of the Board a motion was adopted that the continuance of coordinators be included in any contract signed

After discussion, it was agreed that the coordinators were to be retained on a part-time basis at a salary to assure the services of high type men

Motion was made, seconded and carried that the president of Veterans Medical Service Plan be authorized to take up the matter of remuneration and time of service with the coordinators and that the final determination be left to him

The matter of a change in the wording of the fee schedule pertaining to physiotherapists was discussed The point of argument was that Veterans Administration desired to pay physiotherapist technicians direct rather than through the doctor It was felt that this change would be advisable and on motion seconded and carried the president was given authority to make the necessary changes in the contract relative to the payment of physiotherapists

It was voted to approve the report

Workmen's Compensation.—Dr J Stanley Kenney, chairman, reported on the activities of the Committee

NECROLOGY

Donato Vincent Catalano, M.D, of West Brighton, Staten Island, died on October 16 at his home after a long illness, at the age of fifty-nine Dr Catalano received his medical degree from the Jefferson Medical College in Philadelphia, Pennsylvania, in 1915 During World War I he served in France as a captain in the Army Medical Corps Active in civic work on Staten Island for the last fifteen years, Dr Catalano was a former president of the medical board of St Vincent's Hospital, West New Brighton, chief of its obstetric staff, and a member of its committee on surgery He was also attending physician in obstetrics and gynecology at Richmond Memorial Hospital at Prince Bay

Dr Catalano was a former president of the Richmond County Medical Society, a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons and the New York Academy of Medicine, and a member of the Richmond County and New York State Medical Societies and the American Medical Association

Max N Cohnreich, M D, of New York City, died suddenly on October 8 at the age of sixty-six A native of Germany, Dr Cohnreich received his medical degree from the University of Berlin in 1908 and practiced medicine in Berlin until 1936 For the past fourteen years, Dr Cohnreich had practiced in the Bronx and in 1948 marked the completion of forty years of medical practice After Dr Cohnreich arrived in the United States, he completed three years of postgraduate study at Beth-Israel Hospital. He was a member of the Rudolf Virchow Medical Society of New York City

Edward Martin Cohe, Jr, M.D, of New York City, died on October 22 at his home at the age of seventy Dr Cohe was graduated from the College of Physicians and Surgeons, Columbia University, in 1905 During World War I he served as a colonel in the Army Medical Corps Dr Cohe, who had practiced in New York City for more than forty years, was consultant in gynecology at City and Midtown Hospitals and had been attending gynecologist at the West Side Hospital. A Fellow of the American College of Surgeons, he was a member of the New York Academy of Medicine, the New York County and State Medical Societies, and the American Medical Association

Clarence D'Azavado Daniels, M.D, of Meridian, died on October 13 at the age of sixty-three Dr Daniels received his medical degree from the University of Pennsylvania College of Medicine in 1908 and had been an instructor there before coming to Meridian to start his practice eleven years ago He was a member of the Cayuga County and New York State Medical Societies and the American Medical Association

Robert Tilden Frank, M.D, of New York City, died on October 15 at Doctors Hospital after a short illness, at the age of seventy-four Dr Frank was graduated from the College of Physicians and Surgeons, Columbia University, in 1900, and then took postgraduate studies in Berlin, Germany During World War I he served in France as a captain in the Army Medical Corps From 1920 to 1925 he was attending gynecologist at the University and General Hospitals in Denver, Colorado and an associate in cancer research and associate professor of gynecology at the University of Colorado

In 1906 Dr Frank began his long connection with Mount Sinai Hospital, New York City, as an adjunct gynecologist He became an associate in 1912 and returned there in 1925 as an attending gynecologist From 1937 until his death, he was consulting gynecologist at the hospital Dr Frank was the founder, and, from 1925 to 1944, the director of the endocrine research laboratory at Mount Sinai He was the author of several textbooks on gynecology and endocrinology and of more than 200 scientific papers in the field

Dr Frank was a Diplomate of the American Board of Obstetrics and Gynecology, a Fellow of the American College of Surgeons, and a member of the American Gynecological Society, the New York Academy of Medicine, the New York Obstetrical Society, the New York County and State Medical Societies, and the American Medical Association

John Francis McGrath, M.D, of New York City, died October 15 at St Vincent's Hospital after an illness of three days, at the age of sixty-three. Dr McGrath was graduated from the Cornell University Medical College in 1908 and served his internship at Bellevue Hospital Dr McGrath, who had practiced in New York City for forty years, had been a member of the staff of St Vincent's Hospital for that period of time and was director of obstetrics and gynecology there at the time of his death He was also associate in obstetrics and gynecology at New York Hospital

For thirty years, since 1919, Dr McGrath had been a member of the faculty of Cornell University Medical College, where he was assistant professor of obstetrics and gynecology at his death A Diplomate of the American Board of Obstetrics and Gynecology, Dr McGrath was a Fellow of the American College of Surgeons and a member of the Harvey Society, the Alumni of Bellevue Hospital, the New York Academy of Medicine, the New York Medical-Surgical Society, the New York County and State Medical Societies, and the American Medical Association

Abraham J Rongy, M.D, of New York City, died on October 10 at Mount Sinai Hospital after an illness of two days, at the age of seventy-one. A native of Vilna, Russia, Dr Rongy came to the United States when he was fifteen. He received his medical degree from the Long Island College Hospital in 1899 and interned there the following year Dr Rongy was a founder of the Lebanon Hospital in the Bronx, where he was a staff member and consultant for fifty years Last January, he was one of five physicians with a record of fifty years service at Lebanon who were awarded engraved plaques by the hospital s board of trustees

Dr Rongy was also a founder of the Jewish Maternity Hospital, a consulting gynecologist for the

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MEDICAL NEWS

Academy of Medicine Holds Graduate Fortnight

"ADVANCES in Diagnostic Methods" was the theme of the twenty-second annual Graduate Fortnight of the New York Academy of Medicine, held from October 10 to 21 at the Academy building in New York City. During the two-week program of lectures, panels, hospital conferences, and motion pictures, several hundred outstanding physicians from different parts of the country and many of the Fellows of the Academy of Medicine participated in an intensive study and review of the new technics and procedures by which disease conditions can be diagnosed more promptly.

An innovation this year was an exhibition and demonstration of x-rays by means of television. The "Television of the Interpretation of Roentgenograms" was arranged by Dr. Ross Golden and Dr. Robert P. Ball. A special exhibit of books dealing with advances in diagnostic methods was arranged for the Fortnight by the Library.

The Graduate Fortnight program was organized by a subcommittee of the Committee on Medical Education, of which Dr. Louis Soffer is chairman and Dr. Mahlon Ashford, secretary. Hospital conferences were arranged by a subcommittee headed by Dr. Conduct W. Cutler, Jr. The scientific exhibit was under the direction of Dr. Alfred Angrist, and panel discussions under the chairmanship of Dr. Lloyd F. Craver.

Award Grants for Medical Research

GRANTS of $2,056,426 have been awarded by the National Institutes of Health to provide continued support for medical and allied research projects at non-Federal institutions. A total of 217 projects will be supported at 94 institutions located in 31 states, the District of Columbia, Alaska, and four foreign countries.

The projects are designed to provide new scientific data on a wide variety of human ailments. They include studies of deafness and speech defects, peptic ulcers, the common cold, and the relation of the endocrine glands to aging. They also include studies of the changes induced in the living cell by irradiation, the longevity and behavior of pathogenic bacteria in frozen food, and the viability of enteric bacteria in sea water and factors controlling the fate of sewage after discharge in the sea.

Continuation grants approved in New York State include the following:

American Public Health Association, New York City, Reginald M. Atwater, $27,972, for research in the evaluation of local health services.

Columbia University, New York City: Hattie E. Alexander, $13,651, comparison of efficacy of specific therapeutic agents in whooping cough, Rhode W. Benham, $4,644, effect of nutrition on morphology of dermatophytes, Benjamin N. Berg, $4,482, to study the effects of pantothenic acid deficiency alone and in combination with other partial deficiencies on the duodenal mucosa, Alfred Gilman, $10,692, studies on renal physiology with special reference to the effect of drugs on renal function, Stephen S. Hudack, $10,800, studies in articular replacement, John S. Lockwood, $5,189, studies on lysozyme in ulcerative disease, David Shemin, $7,398, transamination and the intermediary metabolism of amino acid studied with the isotope technic, and H. B. Van Dyke, $13,176, metabolic fate and localization of representative barbiturates, diphenylhydantoin and trimethadione by the use of isotopes.

Cornell University Medical College, New York City: Thomas P. Almy, $3,500, clinical evaluation of the results of psychotherapy in duodenal ulcer, William DeWitt Andrus, $7,776, studies on the etiology of ulcerative colitis, Herbert Conway, $4,987, studies on the rehabilitation of children with speech defects persistent after primary surgery for cleft palate, John G. Kidd and Lewis D. Stevenson, $5,000, analysis of encephalomyelitis, other studies in neuropathology, Milton I. Levine, $8,404, study of adolescent children inoculated with BCG in early infancy, Mary Hewitt Loveless, $4,860, the relation of protein binding and other induced variables to the activity of antimicrobial agents as reflected by host-parasite relationships in vivo, and Carl H. Smith, $11,340, pathogenesis and treatment of Mediterranean (Cooley's) anemia.

Long Island College of Medicine, Brooklyn, Peter Gruenwald, $7,138, pathology and causes of death during fetal and neonatal periods.

Mount Sinai Hospital, New York City: Harry Sobotka, $6,000, thermophil enzymes and proteins.

New York State Department of Health, Albany: F. Wellington Gilcreas, $6,425, study of standard methods for the chemical examination of sewage, H. McLeod Riggins, $37,128, comparative value of streptomycin versus dihydrostreptomycin in tuberculosis, combined chemotherapy of tuberculosis, and the toxic and therapeutic effects of neomycin, alone and with PAS.

New York University, New York City: Henry Doubilet, $11,880, relation of biliary-pancreatic reflux to diseases of the pancreas and biliary tract.

New York University, Bellevue Medical Center, New York City: Heinz L. Luschinsky, $5,184, the enzymatic activity of the placenta in normal pregnancy and toxemia, Alfred Marshak, $39,042, metabolic studies in relation to chemotherapy of tuberculosis, Severo Ochoa, $10,000, study of enzyme systems involved in biologic oxidations and syntheses.

Queens College, Flushing: A. H. Blatt, $9,450, synthesis of pentaquin with labeled atoms.

St. Clare's Hospital, New York City: Max A. Goldzieher and William Bryant Rawls, $9,940, the relation of the endocrine glands to aging.

Syracuse University, Syracuse: Paul A. Bunn, $9,914, to determine the advantages of using the rabbit's eye as a tissue to study antibacterial activity of tuberculostatic agents.

University of Rochester, Rochester: Edward F. Adolph, $12,960, adaptations of animals to cold and to dehydration, George H. Ramsay, $10,548, iodinated organic compounds as contrast media for radiographic diagnoses.

New York University Medical Alumni Day

TO MARK the Alumni Day at the New York University College of Medicine, a unit of the New York University-Bellevue Medical Center, on November 11, a program of six papers was presented

Speakers included Dr John H Mulholland, professor of surgery, "Present Status of Vagotomy in Peptic Ulcer", Dr Morris Herman, professor of surgery, "Present Status of Psychotherapy in General Practice", Dr William L Watson, associate professor of surgery, "Present Status of Special Diagnostic Tests in Carcinoma", Dr Arthur DeGraff professor of therapeutics, "Anticoagulants in the Treatment of Myocardial Infarctions and Other Cardiac Conditions", Dr William E Studdiford, professor of obstetrics and gynecology, "Present Status of Newer Technics on Management of Labor," and Dr Harrison Stanford Martland, professor of forensic medicine, "The Teaching of Legal Medicine and the Proposed Institute of Forensic Medicine at New York University"

MEDICALLY SPEAKING—

Award for Essay on Hippocrates—A $100 government savings bond will be awarded for the best essay on "The Meaning of Hippocrates in the Medical World Today" by the United States Chapter of the International College of Surgeons, according to a recent announcement Entries, which will not be restricted to any certain number of words, must be postmarked not later than March 1, 1950 The contest is being held in connection with the celebration of Hippocrates Day by the International College of Surgeons in Chicago, held October 23, 1949 Entries may be sent to Essay Contest, care of the International College of Surgeons, 1516 Lake Shore Drive, Chicago 10, Illinois

Nursing Population—In a booklet released by the American Nurses' Association, certain interesting information is presented An inventory of professional registered nurses in 1949 disclosed that the population per active professional registered nurse is shown to be five states, only one nurse for 95 to 1,997 population, while five other states had one nurse for every 270 to 324 residents The number of professional nurses in hospitals and schools of nursing increased sixteen per cent from 1947 to 1948 In addition, the number of professional nurses employed by government agencies rose in 1949, compared with the previous year On the other hand, enrollment of student nurses on January 1, 1949, totaled 88,817, a drop of about three per cent from the 91,643 students enrolled on January 1, 1948 The 1949 enrollment is about the same as the total on January 1, 1941

Lectures on Industrial Medicine—The Faculty of Medicine of Columbia University, New York City, has announced a series of lectures on industrial medicine, which are being given on Saturday mornings from 9 00 to 10 00 A M in Amphitheater A, College of Physicians and Surgeons, 630 West 168th Street The lecturers are members of the staff of the Industrial Hygiene Division of the School of Public Health Interested members of the medical profession are invited to attend. There is no formal registration and no tuition fee

Lectures already presented include

September 24—"History of Industrial Medicine"
October 1—"Scope Objectives, and Practice of Industrial Medicine"
October 8—Industrial Health in Relation to Public Health "Hygiene of the Environment"
October 15—Industrial Toxicology—General Considerations"
October 22—"Toxic Metals"
October 29—Toxic Solvents"
November 5—"Toxic Dusts"
November 12—"Toxic Gases"

Lectures remaining on the schedule include

November 19—"Emotional Problems in Industrial Medicine"
November 26—"Workmen's Compensation"
December 3—"Elementary Nuclear Physics"
December 10—"Health Hazards Due to Radiation"

Examination for Medical Officers in U S Public Health Service—A competitive examination for appointment of medical officers in the regular corps of the United States Public Health Service will be held on January 9, 10, and 11, 1950 Examinations will be held at a number of points throughout the United States, located as centrally as possible in relation to homes of candidates Applications must be received no later than December 12, 1949 Appointments will be made in the grades of assistant surgeon (first lieutenant) and senior assistant surgeon (captain) Appointments are permanent and provide opportunities to qualified physicians for a lifetime career in clinical medicine, research, and public health

Application forms and additional information may be obtained by writing to the Surgeon General, United States Public Health Service, Federal Security Agency, Washington 24, D C, attention Division of Commissioned Officers Applications received after December 12, 1949, will not be accepted for this examination but will be admitted to the examination in May, 1950

Memorial Lectures—The Mark J Schoenberg Memorial Lecture will be held at the New York Academy of Medicine at 8 30 P M on Monday, December 5, under the joint sponsorship of the New York Society for Clinical Ophthalmology and the National Society for the Prevention of Blindness Dr Jonas S Friedenwald of Baltimore, Maryland, will discuss "Some Problems in the Diagnosis and Treatment of Glaucoma" This lectureship was established as a memorial to Dr Schoenberg's interest and original work in the control of glaucoma The committee in charge of arrangements includes Dr Willis S Knighton, chairman, Dr Isadore Givner, Dr James W Smith, and Dr Franklin M Foote

The 1949 Menas S Gregory Lecture was delivered on November 3 at the Bellevue Hospital Psychiatric Amphitheater in New York City Guest lecturer was Dr John R. Rees, director of the World Federation of Mental Health, London, England.

The American Board of Orthopaedic Surgery—The following statement is announced in order to clarify the regulations concerning the requirements of the American Board of Orthopaedic Surgery

1 Examinations for Part I are held once yearly

usually in April or May, in various centers selected by the Committee on Examinations

2 Examinations for Part II are held once yearly, usually in January or February, immediately preceding the meeting of the American Academy of Orthopaedic Surgeons

3 Applications for Part I must be received in the office of the secretary before December 31 of the year preceding the examination

4 Applications for Part II must be received in the office of the secretary before August 15 of the year preceding the examination

5 Notice of acceptance for Part I examination is mailed to the candidates during the month of February in the year of the examination

6 Notice of acceptance for Part II examination is mailed to the candidates during the month of November in the year preceding the examination

7 Candidates being examined in Part I in 1951 are required to have completed one year of approved internship and one year of approved resident training in orthopedic surgery and are not required to have a year of general surgery

8 Candidates being examined in Part I in 1952 and subsequently are required to have completed one year of approved internship, one year of approved resident training in general surgery, and two years of approved resident training in orthopedic surgery

9 Starting in the year 1951, the Part II examination will include those persons who took an additional year of resident training in adult orthopedic surgery in lieu of one year of resident training in children's orthopedic surgery

Certification of such candidates will denote the absence of qualified training in children's orthopedic surgery

For further information address the secretary, Dr Harold A Sofield, American Board of Orthopaedic Surgery, 122 South Michigan Avenue, Chicago 3, Illinois

Formation of Mental Health Film Board—Dr Carl Binger, of New York City, editor of *Psychosomatic Medicine*, and Dr Thomas C Rennie, associate professor of psychiatry, Cornell University Medical School, are members of the newly organized Mental Health Film Board This Board will develop a program to give to the public authoritative films dealing with psychiatry and related subjects, as announced by Dr George Stevenson, director of the National Committee for Mental Hygiene Further information is available at the office of the latter organization at 1790 Broadway, New York City

MEETINGS

PAST

New York Academy of General Practitioners

The first scientific assembly of the New York Academy of General Practitioners, an affiliate of the Academy of General Practice, was held October 10 and 11 in Syracuse Chairman of the session was Dr William A Buecheler, president of the Academy

Speakers from New York State included Dr Harry Feldman, associate professor of medicine, Syracuse University, Dr George C Adie, director of surgery, New Rochelle Hospital, Dr George T Pack, assistant professor of clinical surgery, Cornell University Medical College, Dr Carlton E Wertz, Buffalo, president-elect of the Medical Society of the State of New York, Dr John H Talbott, professor of medicine, University of Buffalo, Dr Donald A Covalt, clinical director, New York University-Bellevue Medical Center, and Dr Edward C Hughes, professor of obstetrics, Syracuse University College of Medicine

Officers elected include Dr William A Buecheler, Syracuse, president, Dr Vincent E Fischer, Rochester, president-elect, Dr Samuel H Garlan, New York City, secretary-treasurer, and Dr W Pierce Taylor, Buffalo, vice-president

Long Island Psychiatric Society

The first meeting of the Long Island Psychiatric Society for the 1949–1950 season was held on October 18 at the Veterans Administration Hospital, Northport Guest speaker was Dr Gregory Zilboorg, associate professor of clinical psychiatry, New York Medical College, Flower and Fifth Avenue Hospitals, on "Pride and Prejudice in Psychosomatic Medicine"

Membership of the Society includes staff members of the Kings Park State Hospital, Central Islip State Hospital, Creedmoor State Hospital, Pilgrim State Hospital, Northport Veterans Administration Hospital, and several private institutions on Long Island The Society, which was organized in 1925, has the following officers Dr Henry Brill, president Dr Pompo Milici, vice-president, and Dr Arnold A Schillinger, secretary-treasurer

Tuberculosis Sanatorium Conference of Metropolitan New York

"The Heart in Chronic Pulmonary Disease" was the subject of a panel discussion held on October 19 at the Cornell University Medical College, New York City, under the sponsorship of the Tuberculosis Sanatorium Conference of Metropolitan New York

Dr H McLeod Riggins, assistant clinical professor of medicine, Columbia University College of Physicians and Surgeons, was the moderator Members of the panel included Dr Aaron Himmelstein and Dr Dickinson W Richards, College of Physicians and Surgeons, Dr Charles E Kossman, New York University College of Medicine, Dr David Ulmar, New York University Post-Graduate Medical School, Dr David M Spain, director, Department of Laboratories and Research, Westchester County, and Dr George W Wright, Trudeau Foundation, Saranac Lake

American Public Health Association

The seventy-seventh annual meeting of the American Public Health Association was held in New York City from October 24 to 28, with headquarters at the Hotel Statler Meeting with the Association were a number of other organizations devoted to special interests allied to public health

Scientific sessions were held on the following topics "Rehabilitation of Crippled Children and Adults," "Integrating Mental Hygiene Concepts in Public Health Programs," "Roundup of Research with Implications for School Age Children," "Nutritional Aspects of School Feeding Programs."

"Mental Hygiene in the Classroom," "Global Control of Insect Vectors," "Air Sanitation," "Problems of an Aging Population," "Trends in Maternity Care," "The British National Health Service," "Public Health Technics as Applied to Home Accident Prevention," "Research in the Dental Field in Public Health," "Health Aspects of Chemicals Introduced in Foods," "Regionalization of Medical Services," "Report on a Topical Fluoride Program," "Voluntary Health Insurance on the National Scene," "Tuberculosis," "Prematurity," "Some Public Health Implications of the State of Nutrition During Pregnancy," and "Enteric Diseases and Sanitation"

New York Allergy Society

A meeting of the New York Allergy Society was held on November 2 at the New York Academy of Medicine Scientific papers presented included "Cardiovascular Lesions Resembling Those Observed in Hypersensitivity Induced by Histamine," Dr Lawrence Farmer and Dr George L Rohdenburg, Lenox Hill Hospital, and "Cardiorespiratory Function in Relation to Asthma and Emphysema," Dr Andre Cournand, associate professor of medicine, and Dr Dickinson W Richards, Jr, Lambert professor of medicine, both of Columbia University College of Physicians and Surgeons and Dr Horace Baldwin, assistant professor of clinical medicine, Cornell University College of Medicine

Conference of State Medical Association Secretaries and Editors

The annual Conference of State Medical Association Secretaries and Editors was held in the American Medical Association headquarters, Chicago, Illinois, on November 3 and 4 Chairman of the program was Dr Douglas W Macomber of Denver, Colorado

Among the topics presented were "Making a Speakers Bureau Fulfill Its Purpose," "How Can State Medical Association Secretaries and Editors Improve Organization Relationships with Hospital Associations?", "Office and Personnel Management in the Expanding Headquarters of State Medical Associations," "The 'Medical Grand Jury' Plan of Investigating Patient's Dissatisfactions," "Developing and Maintaining Reader Interest in State Medical Journals," "Availability and Utilization of Medical Care in America," "Management of Radio Relations for State Medical Meetings," "Technics of Managing a State Legislative Campaign," and "The British National Health Service Results to Date"

New York physicians appearing on the program included Dr Louis H Bauer, Hempstead, chairman of the Board of Trustees of the A M A , who greeted the delegates at the opening session, and Dr Walter P Anderton, New York City, secretary of the Medical Society of the State of New York, who participated in a discussion, "As Others See Us"

National Society for Crippled Children and Adults

"Achieving Goals for the Handicapped" was the theme of the annual convention of the National Society for Crippled Children and Adults held November 7 through 10 in New York City Approximately 2,000 delegates were present from the National Society's 2,000 state and local affiliates throughout the United States, Alaska, and Hawaii Presiding at the opening session was Dr John J Lee, president of the Society, who is dean of the Graduate School at Wayne University, Detroit, Michigan

Among those appearing on the program were Dr George G Deaver physician in charge of physical medicine at New York University-Bellevue Medical Center, who is president of the American Academy for Cerebral Palsy, and Dr Howard A. Rusk director of the Institute of Rehabilitation and Physical Medicine, New York University-Bellevue Medical Center

FUTURE

Utica Academy of Medicine

Dr Frederick H vom Saal, instructor in orthopedics, New York University Medical College, will speak on "Intramedullary Fixation of the Femur and Tibia" at a meeting of the Utica Academy of Medicine to be held Thursday, November 17, at 8 00 P.M at the Hotel Utica, Utica

The program is postgraduate instruction arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York, with the cooperation of the New York State Department of Health.

Association for the Advancement of Psychoanalysis

The next meeting of the Association for the Advancement of Psychoanalysis will be held on Wednesday, November 23, at 8 30 P M at the New York Academy of Medicine, New York City Dr Alexander Reid Martin will present a paper entitled, "The Nature of Insight"

National Conference of County Medical Society Officers

The sixth annual National Conference of County Medical Society Officers will be held in Washington, D C , on December 8 during the clinical session of the American Medical Association The meeting is scheduled for 8 00 P M. in the Hotel Statler and will feature a program on "Community Health Leadership"

Among those scheduled to speak is Dr Roy L Scott, president of the Erie County Medical Society whose topic will be "Erie County Rings the Bell"

PERSONALITIES

Retired

Dr E Carlton Foster of Penn Yan, one of the founders of the Foster-Hatch medical group, October 1 after forty-five years of practice He will continue to do consultation work.

Honored

Dr Anchise A. Cirillo New York City, at a testimonial dinner September 29 at the Hotel Commodore by the New York City Police Department as "an expression of gratitude for Dr Cirillo s many

years of service as honorary surgeon of the department"

On September 25, Dr Archie I Cullen, Altamont, who completed forty-six years of practice, at "Dr Cullen Day" sponsored by the Altamont Kiwanis Club Dr Rachel G Holloway, Kerhonkson, on October 6 at a testimonial dinner sponsored by the Kerhonkson Lions Club and the Veterans of Foreign Wars post Dr Holloway recently announced her retirement

Appointed

Dr Frederick Elias, Monticello, as clinical instructor of radiology at the New York Medical College Dr Robert S Hotchkiss, former associate professor of surgery (urology) at Cornell University Medical College, as professor and chairman of the department of urology, New York University Post-Graduate Medical School Dr Herbert Kent, formerly Fellow in Physical Medicine and Rehabilitation of the New York University-Bellevue Medical Center and National Foundation for Infantile Paralysis, as chief of physical medicine rehabilitation at the Veterans Administration Hospital, Indianapolis, Indiana

Dr Harry S Mustard, New York City Health commissioner since November 3, 1947, as executive director of the State Charities Aid Association, effective January 1 Dr Edwin J Quinn and Dr Frederick A Waldron, as assistant medical directors of the Mutual Life Insurance Company, New York City Dr Charles Fore Wilkinson, Jr, formerly associate director of the Kellogg Foundation's Division of Medicine and assistant professor of medicine at the University of Michigan Medical School, as professor and chairman of the department of medicine at the Post-Graduate Medical School, New York University-Bellevue Medical Center, and director of the Fourth Medical Division at Bellevue Hospital

Elected

As officers of the Northeastern Section of the American Urological Association, Dr A L Parlow, Rochester, president, Dr William J Kennedy Gloversville, president-elect, and Dr A M Crance, Geneva, secretary-treasurer Dr Harry E Reynolds, Schenectady, to the board of directors of the Citizens Trust Company Dr Irving Sherwood Wright, professor of clinical medicine at Cornell University Medical College, as president of the New York Heart Association

Studies

Dr Clarence E de la Chappelle, New York City to Europe for an informal survey of postgraduate medical education in England, France, Germany, Switzerland, and Italy, on a trip sponsored by the Post-Graduate Medical School, New York University-Bellevue Medical Center Dr Sidney Rubenfeld, associate clinical professor of radiology, New York University College of Medicine, and Dr Anthony A Blasi, instructor in radiology at the College, the technic of using radioisotopes in research, at the Oak Ridge Institute of Nuclear Studies, Oak Ridge, Tennessee

Speakers

Dr Max L Fox, Cato, on new developments in medicine at a meeting of the Cato Rotary Club October 3 Dr F H Marx, Oneonta, on a system of keeping health and growth records of students, October 13 at a meeting of the Oneonta Rotary Club Dr George T Pack, New York City, on "Carcinoma of the Stomach" before the section on surgery at the ninety-ninth annual session of the Medical Society of the State of Pennsylvania, September 29 in Pittsburgh, and on "Cancer of the Stomach and Intestine" at a meeting of the New York State Academy of General Practice, October 11 in Syracuse

Dr John L Pulvino, Clyde, on "A Rookie Medic Goes to War" at a recent meeting of the Clyde Rotary Club Dr William R Strutton, Rockland State Hospital, on "Medical Jurisprudence" at a meeting of the Pearl River Lions Club October 4 Dr Arthur J Wallingford, chairman of the department of gynecology and obstetrics at Albany Hospital and Albany Medical School, on cancer, at the meeting of the Latham Business and Professional Women's Club on October 17 Dr Alfred M Wedd, Rochester, on "Drugs in Heart Therapy" at a meeting of the Rochester Pharmaceutical Association October 13 Dr Joseph F Worthen, Staten Island, on "State Medicine" at a meeting of the Women's Club of Staten Island October 5 in New Brighton

New Offices

Dr H Walter Baum, formerly of Elkins, West Virginia practice of internal medicine in Glens Falls Dr Robert Collins, U S Navy Medical Corps veteran, general practice in Potsdam Dr Donald R. Davidson, formerly with the U S Army Medical Corps, general practice in Ilion Dr Ralph Diamond, formerly of Canisteo, practice of eye, ear, nose, and throat in Cortland Dr David Hayeship, Albany, general practice in Schenectady

Dr Antonia J Keese, New York City, general practice in Hammond Dr Charles Kleptar, who came to this country from Czechoslovakia a year ago, general practice in Delhi Dr John R. Kelly, recently a captain in the Army Medical Corps in Korea and Japan, practice of obstetrics and gynecology in Hornell Dr William F Martin, U S Army Medical Corps veteran, general practice in Glen Cove Dr Joseph Ormand, practice of internal medicine in Crestwood

Dr F C Ronan, of Mille Roches, Ontario, Canada, general practice in Fort Covington Dr William M Sexton, who recently completed a two-year fellowship in surgery at the Lahey Clinic, Boston, Massachusetts, practice of general surgery in Utica

Dr Myron E Williams, Jr, recently with the U S Army Medical Corps at Fort Jackson Station Hospital, Columbia, South Carolina general practice in Holley Dr George E York, general practice in Schenectady

COUNTY NEWS

Albany County

At the September 28 meeting of the Medical Society of the County of Albany, Dr Thomas J O'Donnell delivered the vice-presidential address on the topic "Present Day Problems in Medicine"

Dr Herbert D Adams, chief of thoracic surgery, Lahey Clinic and New England Deaconess Hospital, was the featured speaker at the County Medical Society meeting on October 26 Dr Adams spoke on "Diseases of the Chest and Their Treatment by Thoracic Surgery"

Allegany County

The Allegany County Medical Society heard two programs of postgraduate instruction at the September 8 and November 10 meetings The programs were arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health and included the following lectures Dr Burtis B Breese, Jr, University of Rochester School of Medicine and Dentistry, on "Epidemiology of Streptococcal Infections," and Dr E Henry Keutmann, also of the University of Rochester School of Medicine and Dentistry, on "Some Practical Considerations of Pituitary, Adrenal, and Gonad Interrelationships"

Bronx County

The regular meeting of the Bronx County Medical Society was held on October 19 at the Concourse Plaza Hotel. Dr Henry J Barrow, president of the Society, presented the inauguaral address, and Dr John J Masterson, president of the State Medical Society, spoke on the activities of the New York State Medical Society

Cayuga County

Dr Joseph D Godfrey, University of Buffalo School of Medicine, spoke on "The Treatment of Low Back Pain' at the September 15 meeting of the Cayuga County Medical Society This was a lecture in postgraduate instruction arranged by the Medical Society of the State of New York in cooperation with the New York State Department of Health.

Chemung County

The September meeting of the Chemung County Medical Society was held on September 28 at the City Club Following the business meeting, Mr Stephen Leech, field representative of the Public Relations Bureau of the Medical Society of the State of New York, spoke on the fight against socialized medicine

Columbia County

The following officers were elected at the annual meeting of the Columbia County Medical Society on October 4 Dr Oscar Wilcox, Chatham, president, Dr Harold Levine, Hudson, vice-president, and Dr Roger Bliss Hudson, secretary-treasurer "The Diagnosis of Anemia" was the subject of a talk, illustrated with lantern slides, by Dr Simon Propp, Albany Medical College

Dutchess County

A golf tournament and dinner were held at the Hudson River State Hospital on September 14 for the members of the Dutchess County Medical Society Following the dinner, Dr Philip M Stimson, Cornell Medical College, delivered a lecture on poliomyelitis

Meetings were also held on October 12 and 22 at which times Dr Benjamin Etsten, Tufts Medical College, spoke on "Recent Advances in Anesthesia," and Dr George Porter Robb, New York Post-Graduate Medical School, gave a talk on "The Anatomy of the Heart and Thoracic Blood Vessels as Revealed by Angiocardiography" The latter meeting was held at the Castle Point Veterans Hospital, after which buffet luncheon was served and the members attended the Army-Columbia football game at West Point in the afternoon

Erie County

The second annual sports day and dinner of the Medical Society of the County of Erie was held on August 18 at the Orchard Park Country Club The outing proved a great success and included a golf tournament and steak dinner The Emergency Hospital Four-Man Golf Team won the George A Jeffrey trophy

The Erie County Medical Society, assisted by the Woman's Auxiliary and various other agencies, conducted its fifth annual public education meeting on September 14 Dr Andrew C Ivy of Chicago was the featured speaker, and Dr A. H Aaron, University of Buffalo School of Medicine, was the moderator in a panel discussion by twelve Erie County physicians

The opening meeting of the 1949–1950 season of the Erie County Medical Society on October 25 consisted of the third annual clinical afternoon and evening Speakers included Dr Burrill B Crohn, Dr Richard Harold Freyberg, Dr William Emery Studdiford, Jr, and Dr George T Pack, all of New York City Drs Crohn and Freyberg presented additional lectures at the evening session

Dr Rudolf L Baer, coauthor of the "Year Book of Dermatology," was guest speaker at the meeting of the Buffalo Academy of Medicine on October 5 Dr Baer's topic was "The Treatment of Allergic Skin Diseases"

Fulton County

A lecture in postgraduate instruction arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York with the cooperation of the New York State Health Department was presented by Dr Pelham Glasier, instructor in surgery, Albany Medical College, at the October 20 meeting of the Fulton County Medical Society Dr Glasier spoke on "Cancer of the Colon"

On November 17 another program of postgraduate instruction will be presented for the members of the Fulton County Medical Society The meeting will be held at the Eccentric Club, Gloversville, at 9 00 P M and will include an address by Dr Francis D Speer, professor of pathology and clinical pathology, New York Medical College and Flower and Fifth Avenue Hospitals on "Clinical and Laboratory Fundamentals in Fluid-Electrolyte Balance"

Greene County

At the annual meeting of the Greene County Medical Society on October 11 at Memorial Hospital, Catskill, the following officers were elected Dr Marion K. Colle, president Dr E B Van-Deusen, vice-president, Dr William M Rapp, secretary, and Dr Mahlon H Atkinson, treasurer

Herkimer County

The operation of Red Cross blood banks was discussed by Mr Richard B Jamieson, technical director of the Syracuse Regional Blood Donor Center, at the October 11 meeting of the Herkimer County Medical Society

Jefferson County

The following speakers and topics were highlights of the recent meetings of the Jefferson County Medical Society On September 20, Dr Robert F Korns, Bureau of Communicable Disease Control, New York State Department of Health, ad-

dressed the members on the subject, "Epidemiology of Poliomyelitis," and on October 18, Dr Henry B Crawford, University of Rochester School of Medicine and Dentistry, gave a talk on "Preventive Orthopedics, Common Defects with Good Prognosis Under Medical Care" These two programs were postgraduate instruction arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health

A third program of postgraduate instruction will be presented on November 15 at the Black River Valley Club, Watertown, at 8 00 P M at a meeting of the Jefferson County Medical Society Dr E Henry Keutmann, University of Rochester School of Medicine and Dentistry, will give a lecture on "Some Practical Considerations of Pituitary, Adrenal, and Gonad Interrelationships"

Kings County

Members of the Kings County Medical Society heard a talk on "Electrolytes in the Treatment of Diabetes and Diabetic Coma" by Dr Peter H Forsham, Harvard Medical School, at the stated meeting of the Society held on October 18

Speakers at the October 11 meeting of the Physicians Guild of Kings County were Mr John Cashmore, president of the Borough of Brooklyn, and his opponent for election, Mr Abe Stark, who discussed medical and hospital care in Brooklyn

Monroe County

The October meeting of the Monroe County Medical Society featured a speech by Dr Paul A. Davis, past president of the Academy of General Practice, Dayton, Ohio, on "Relation and Integration of the General Practitioner in the Hospital."

The Monroe County Medical Society sponsored a postgraduate instruction day on November 10 The program was arranged by the State Medical Society with the cooperation of the New York State Department of Health The following speakers and topics were presented Dr Stanley E Bradley, College of Physicians and Surgeons, Columbia University, on "Renal Insufficiency", Dr J William Hinton, New York Post-Graduate Medical School, on "Upper G I Tract Bleeding", Dr George G Deaver, New York University College of Medicine, on "Rehabilitation of the Hemiplegic," and Dr Howard C Stewart, New York State Department of Health, on "BCG" Question and answer periods followed the scientific sessions, and a movie, "Kidney in Health," was also shown

The Rochester Academy of Medicine opened its 1949–1950 lecture series on October 4 with a discussion of medical applications of atomic energy by Dr Shields Warren, director, Division of Biology and Medicine, U S Atomic Energy Commission Dr Eugene Ferris, University of Cincinnati, College of Medicine, was the guest speaker at the November 1 meeting Dr Ferris spoke on "Clinical and Physiological Studies in Hypertension"

Montgomery County

Members of the Montgomery County Medical Society and the Woman's Auxiliary held their annual field day on September 22 in Ephratah Inclement weather forced postponement of outdoor sports events, but an indoor program was substituted. Announcement of the resignation of Dr Raymond Herr, Montgomery County pathologist, was made, and he was presented with a gift from the Medical Society

Nassau County

The regular monthly meeting of the Nassau County Medical Society was held on September 27 Dr Earle G Brown, commissioner of the Nassau County Health Department, spoke on "The Services of a Modern Health Department" as part of the scientific session

Niagara County

Members of the Niagara County Medical Society heard a discussion of "The Program of the Regional Plan of Western New York Associated with the University of Buffalo" by Drs I Ruben and Stockton Kimball, director of the Eastern New York Regional Plan Associated with the University of Buffalo and dean of the University of Buffalo, School of Medicine, respectively, at the regular monthly meeting held on September 13 On October 11 legislative advice to physicians was the subject of talks by Mr Earl Brydges, Mr Ernest Curte, and Mr Jacob Hollinger, members of the State Legislature This was a part of the program of the regular monthly meeting of the County Medical Society

Radio presentations on radio station WUSJ, Lockport, sponsored by the Niagara County Medical Society, include two weekly features, "The Doctor Says," under the direction Dr Wilfred M Anna, chairman of public relations of the Niagara County Medical Society, and "Live and Like It," a series prepared by the American Medical Association

Oneida County

The Oneida County Medical Society held a dinner meeting on October 11 at the Rome State School. A scientific program was presented by the Utica Tumor Clinic under the direction of Dr John S Fitzgerald. Speakers were as follows Dr John S Fitzgerald on "Work of the Tumor Clinic", Dr A. L Shaheen on "Plastic Surgery of Carcinoma of the Face", Dr J G Novek on "Carcinoma of the Cervix," and Dr Gerald F Jones on "Carcinoma of the Breast"

A joint session of the Utica and Syracuse Academies of Medicine was held on September 15 at South Bay, Oneida Lake The day's program included a golf tournament, dinner, and an address on "Medical Mission to Poland" by Dr S Bernard Wortis, New York City

Postgraduate instruction was presented at the October 20 meeting of the Utica Academy of Medicine with Dr George A. Perera, College of Physicians and Surgeons, Columbia University, speaking on "The Action and Use of the Adrenal Cortical Steroids Including Cortisone" The program was arranged by the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

Onondaga County

A forum on employment of handicapped persons was held on October 10 at the Hotel Onondaga. The meeting, sponsored by the Onondaga County Medical Society and the Onondaga League for the Handicapped, included Drs Richard S Farr, D F Gillette, J Alderman, Rufus Reed, W W Street,

Leo Stoner, and George Raus, speakers representing the Medical Society

Ontario County

The scientific session of the regular meeting of the Ontario County Medical Society held on October 11 at the Canandaigua Hotel included a lecture in postgraduate instruction by Dr John C McCauley, Jr, associate professor of orthopedic surgery at New York University College of Medicine Dr McCauley's subject was "The Rehabilitation Treatment of Poliomyelitis" The instruction was arranged by the New York State Medical Society with the cooperation of the State Department of Health

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Dr Arthur M Reich, clinical professor of obstetrics and gynecology at New York University College of Medicine, addressed the Geneva Academy of Medicine on the topic, "The Treatment of Obstetrical Bleeding" The program, held on October 17, was postgraduate instruction arranged by the State Medical Society and the Department of Health.

Orange County

Members of the Orange County Medical Society heard Dr E M Bluestone, director of Montefiore Hospital, New York City, at a meeting of the Society on October 11 Dr Bluestone advised physicians on the needs of hospital patients and how to meet these needs.

Queens County

The annual joint meeting of the Queensboro Tuberculosis and Health Association and the Queens County Medical Society was held on September 27 Dr Houston Peterson, moderator of the television program, "Theatre of the Mind," and head of the philosophy department of Rutgers University, spoke on "Books, Courage, and Late Maturity"

The stated meeting of the County Medical Society on October 25 included a round table discussion on maternal mortality Dr Nicholson J Eastman, professor of obstetrics, Johns Hopkins University, School of Medicine, acted as moderator A scientific exhibit on maternal mortality, prepared by the Exhibit Committee of the Medical Society and the Queens County Cancer Committee, preceded and followed the meeting

Richmond County

The annual outing of the Richmond County Medical Society was held on September 22 at the Atlantic Inn A picnic and dinner were included in the day's program.

The October meeting of the Richmond County Medical Society on October 12 included an address by Dr Elliott S Hurwitt, adjunct surgeon for pediatric surgery at Mount Sinai Hospital, on "Pediatric Surgery"

Rockland County

The Rockland County Medical Society held its annual picnic on September 7 at the Summit Park Sanatorium. A steak roast and outdoor sports were featured.

The October 5 meeting of the Society heard Thomas M Fleming, Jr, of the Associated Hospital Service of New York describe plans for an intensified program for the enrollment of individuals in the United Medical Service and Associated Hospital Service Plans in cooperation with the local medical societies

Saratoga County

The annual meeting of the Saratoga County Medical Society was held on October 20 Election of officers was held, and Dr Adrian A Ehler, Albany, spoke on "Diseases of the Esophagus"

Schenectady County

Dr Paul Reznikoff, professor of clinical medicine, Cornell University Medical College, spoke on "Blood Dyscrasia Produced by Industrial Exposures" at the October 4 meeting of the Schenectady County Medical Society The program was postgraduate instruction arranged by the Medical Society of the State of New York in cooperation with the New York State Department of Health At the regular meeting of the County Medical Society on November 1, members heard Dr Stewart Wolf, associate professor of medicine, Cornell University Medical College, speak on the topic, "Visceral Pain Mechanisms"

Steuben County

A dinner opened the fall meeting of the Steuben County Medical Society on September 7 Guest speaker was Dr W W Fuge, associate professor of surgery, University of Buffalo, School of Medicine, who spoke on "Modern Surgical Management of Gastric and Duodenal Lesions"

Suffolk County

The 144th annual meeting of the Suffolk County Medical Society was held on October 19 at Robbins Hall, Central Islip Hospital. A panel discussion on gastroenterology was presented

Tompkins County

Mr Michael R. Hanna, general manager of station WHCU, discussed public relations as affecting the medical profession at the first fall meeting of the Tompkins County Medical Society on September 19

The Tumor Study Group of the Tompkins County Medical Society met on September 20 at the Nurses' Home of Biggs Memorial Hospital Members of the Hospital staff, Drs Kenneth W Wright, William A. McAuliff, Richmond Douglas, and Frederick Beck, discussed tumors of the chest

Washington County

The Washington County Medical Society held its annual meeting on October 11 The following officers were elected for the coming year Dr Joseph Feingold, Fort Edward, president, Dr Leo Thume, Fort Ann, vice-president, Dr Denver M Vickers, Cambridge, secretary, and Dr Charles A. Prescott, Hudson Falls, treasurer Dr John Sumner presented the presidential address on "Experience with Aureomycin," and Dr Francis W Dodge, Albany, spoke on "Diagnosis and Treatment of Diseases of the Hip"

Wyoming County

On October 12 a regular meeting of the Wyoming County Medical Society was held in Warsaw The following officers were elected for the coming year Dr Bruno J Tryka, Perry, president, Dr S T Williams, Attica, vice-president, and Dr P A. Burgeson, Warsaw, secretary-treasurer

CORRESPONDENCE

TOXIC DRUGS AND ACCIDENTS

To the Editor

A study is being made in the Department of Pharmacology and Toxicology of the University of Rochester School of Medicine and Dentistry, under the direction of Dr Harold Hodge, to determine to what extent the effects of therapeutic drugs and exposure to toxic chemicals contribute to the high death and disability rates due to accidents

This study is part of a wider consideration of the medical aspects of accident control and is concerned particularly with the problem of injuries and poisonings which occur in homes and on farms There is special emphasis on the etiology of accidents to children between the ages of one and twenty years, since accidents are the leading cause of death in this age group, and second only to congenital malformations as a cause of permanent disability

In dealing with industrial and traffic accidents, some degree of mechanical and legal control is possible In homes and on farms, where the accident rate is highest, the most authoritative influence is that of the practicing physician

It has been shown statistically that about 20 per cent of the total population have most of the accidents There is also considerable evidence to show that many of these accident-prone individuals are suffering from physical or emotional disorders which can be diagnosed and treated clinically The baffling problem of accident control may well find its solution in the offices of private practitioners

A request is being made to doctors to help in the study described above The immediate need is for case histories of the following type

1 Records of patients who have had accidents while under the effects of medications such as antihistaminics, anticonvulsants, barbiturates, sulfa drugs, insulin, bromide, atropine, and procaine hydrochloride

2 Records of patients who have had accidents after exposure to toxic chemicals such as carbon tetrachloride, naphtha, etc

3 Records of patients who have suffered kidney or liver damage after exposure to toxic chemicals There is special interest in case histories of such damage after exposure to carbon tetrachloride used for dry cleaning, as a solvent, or as a watermark detector by stamp collectors

4 Records of patients who have had repeated small or major injuries because of some physical disorder such as limited hearing, defective vision, orthopedic impairment, epilepsy (slight petit mal or psychomotor attacks), heart failure, diabetes

Assistance in obtaining this material will be greatly appreciated Please address all communications to

Marion Gleason
Department of Pharmacology and Toxicology
University of Rochester School of Medicine and Dentistry
200 Crittenden Boulevard
Rochester, New York

NOTE The foregoing letter appeared in the July 2 1949, issue of the *Journal of the American Medical Association* and is reprinted for the attention of physicians in New York State.

CHRONIC BRUCELLOSIS

To the Editor

Dr J A Mishkin's well-documented report, "Chronic Brucellosis Complicated by Severe Pancytopenia," published in the NEW YORK STATE JOURNAL OF MEDICINE, September 15, 1949, deserves comment because of the importance of bringing this aspect of brucellosis to the attention of the medical profession and because of the statement that there is no mention in the current literature or texts of a marked depression of the hemopoietic system

Whereas cases such as the one reported by Dr Mishkin undoubtedly are not common, they have been observed. In my book, *Brucellosis (Undulant Fever)—Clinical and Subclinical*, Paul B Hoeber, Inc , 1941, I stated on page 118 "Anemia is found in a large percentage of cases of acute or chronic brucellosis The degree of depression of hemoglobin and red blood cells varies greatly without much regard to the severity of the infection Very low hemoglobin readings are occasionally encountered Red blood cells are often reduced in number to 2,500,000 or fewer Hemoglobin and red cells are reduced proportionately The picture is usually one of secondary anemia of other origin Occasionally the anemia is profound *Rarely it closely resembles pernicious anemia from which it must be carefully distinguished*" [The italics were used]

Leucopenia and relative lymphocytosis were discussed Calder, Steen, and Baker [Blood Studies in Brucellosis, *J A M A* 112 1893, (1939)] were quoted as to their extensive observations They had found slow clotting time in one third of cases, with normal platelet counts, in agreement with my own observations In four of my patients slow clotting time was reversed following specific therapy of the Brucella infection Purpura was discussed

Blood changes in brucellosis are discussed more extensively in the revised edition of my book, now in press

Dr Mishkin's case, although not culturally proved, probably was one of active Brucella infection The observations made and the results achieved have added confirmation to the oft-made statement that brucellosis may cause or simulate a wide variety of clinical and pathologic manifestations often ascribed to other origin

HAROLD J HARRIS, M D

New York City
September 28, 1949

Reply by Dr Mishkin

To the Editor

I wish to thank Dr Harold J Harris for his worthy comments of my article, "Chronic Brucellosis Complicated by Severe Pancytopenia"

In recent years there have been more frequent articles referring to the widespread manifestations of Brucella infections, to the many organic systems which may be involved in brucellosis However, except for brief mention of the secondary anemia, leucopenia, and relative lymphocytosis, very little has been reported concerning the more severe types of blood dyscrasias which may be seen with this disease process

In the case reported by me, the marked depression of the hemopoietic system was so profound that the blood picture simulated that seen in aplastic anemia The hemoglobin ranged between 30 to 44 per cent Sahli and the red blood count between 2,160,000 to 2,500,000 The white blood cells averaged 2,300 per cu mm and the platelets 86,000 This picture lasted for about one month in spite of repeated whole blood transfusions, iron orally, and liver extract intramuscularly It was not until the infectious process was controlled with streptomycin that the blood picture reverted to normal Clotting and bleeding times and clot retraction were within normal limits Lack of space did not allow valuable tables, which indicated the progressive changes in the blood picture during the course of the disease, to be included in the article

It should be emphasized at this time that the modern concept of the active treatment of Brucella infections places prime importance on the newer antibiotics, aureomycin and chloramphenicol

J A Mishkin, M D

Watertown, New York
October 7, 1949

NECROLOGY

[Continued from page 2711]

Bronx Maternity and Rockaway Beach Hospitals and the Hospital for Joint Diseases From 1928 to 1933 he was chairman of the Greater New York Committee on Periodic Health Examination In 1927 he was selected to attend an international conference in Geneva, Switzerland, on the Rights of Jews in Rumania, Hungary, Poland, Lithuania, and other European countries As national council chairman of the Zionist Organization of America, Dr Rongy was active for years in behalf of his co-religionists in Europe He was also active in the work of the Federation of Jewish Philanthropies

A Diplomate of the American Board of Obstetrics and Gynecology, Dr Rongy was a Fellow of the American College of Surgeons and of the New York Academy of Medicine and a member of the American Obstetrical, Gynecological, and Abdominal Surgery Society, the American Association for the Advancement of Science, the American Medical Editors' and Authors' Association, the New York County and State Medical Societies, and the American Medical Association

Joseph Anthony Sanders, M.D, of Utica, died on August 10 at the age of ninety-seven at the Masonic Home in Utica, where he had been living Dr Sanders was graduated from the New York University Medical College in 1882 and had practiced in Clifton Springs prior to his retirement in 1935 Dr Sanders was a retired member of the Ontario County and New York State Medical Societies and the American Medical Association

James Higgins Whaley, M D, of Rome, died on October 12 at his home at the age of eighty-seven Dr Whaley was graduated from the Bellevue Hospital Medical College, New York City, in 1888, the third generation of his family to practice medicine His first practice was in Rome, where he was originally a horse-and-buggy doctor Dr Whaley practiced for sixty-one years and for thirty-eight years was a physician for the New York Central Railroad He was honorary physician at the Rome and Murphy Memorial Hospitals and a member of the Utica Academy of Medicine the Oneida County and New York State Medical Societies, and the American Medical Association

BOOKS

Books for review should be sent to Book Review Department at 1313 Bedford Avenue Brooklyn, N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers.

BOOKS RECEIVED

Applied Psychoanalysis Selected Objectives of Psychotherapy By Felix Deutsch, M D Duodecimo of 244 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $3 75

Handbook of Materia Medica, Toxicology, and Pharmacology For Students and Practitioners of Medicine By Forrest Ramon Davison, M B Fourth edition Octavo of 730 pages, illustrated St Louis, C V Mosby Co , 1949 Cloth, $8 50

The 1948 Year Book of Endocrinology, Metabolism and Nutrition Endocrinology edited by Willard O Thompson, M D Metabolism and Nutrition edited by Tom D Spies, M D Duodecimo of 544 pages, illustrated Chicago, Year Book Publishers, 1949 Cloth, $4.50

Fundamental Considerations in Anesthesia. By Charles L Burstein, M D Octavo of 153 pages, illustrated New York, Macmillan Co , 1949 Cloth, $4 00

Medicine Throughout Antiquity By Benjamin Lee Gordon, M D Octavo of 818 pages, illustrated Philadelphia, F A Davis Co , 1949 Cloth, $6 00

The Basic Neurosis Oral Regression and Psychic Masochism By Edmund Bergler, M D Octavo of 353 pages New York, Grune & Stratton, 1949 Cloth, $5 00

Problems of Early Infancy Transactions of the Second Conference March 1–2, 1948, New York, N Y With Supplement Covering Special Meeting, July 18–19, 1947, New York, N Y Edited by Milton J E Senn, M D Octavo of 120 pages, illustrated. *New York, Josiah Macy, Jr Foundation, n d.* Paper, $1 00

Conference on Metabolic Aspects of Convalescence Transactions of the Sixteenth Meeting, New York, N Y , October 27–28, 1947 Edited by Edward C Reifenstein, Jr , M D Octavo of 168 pages, illustrated. New York, Josiah Macy, Jr Foundation, n d. Paper, $3 00

Conference on Metabolic Aspects of Convalescence Transactions of the Seventeenth Meeting, New York, N Y , March 29–30, 1948 Edited by Edward C Reifenstein, Jr , M D Octavo of 246 pages, illustrated. New York, Josiah Macy, Jr Foundation, n.d Paper, $4 00

Your Child's Mind and Body A Practical Guide for Parents By Flanders Dunbar, M D Octavo of 324 pages New York, Random House, 1949 Cloth, $2 95

Fundamentals of Internal Medicine By Wallace Mason Yater, M D Third edition Octavo of 1,451 pages, illustrated. New York, Appleton-Century-Crofts, 1949 Cloth, $12 00

Clinical Radiation Therapy By Ira I Kaplan, M D Second edition Octavo of 844 pages, illustrated New York, Paul B Hoeber, 1949 Cloth, $15 00

Public Health Statistics By Marguerite F Hall, Ph D Second edition Octavo of 441 pages, illustrated. New York, Paul B Hoeber, 1949 Cloth, $7 50

Garrod's Diseases of Children Edited by Donald Paterson, M D , and Alan Moncrieff, M D Fourth edition *Volume II* With contributions by 24 contributors Octavo of 1,033 pages, illustrated. Baltimore, Williams & Wilkins Co , 1949. Cloth, $10 00

Malignant Disease and Its Treatment by Radium. By Sir Stanford Cade, F R C S , M R C P Second edition *Volume II* Octavo of 430 pages, illustrated Baltimore, Williams & Wilkins Co , 1949 Cloth, $12 50

Diseases of the Adrenals By Louis J Soffer, M D Second edition Octavo of 320 pages, illustrated. Philadelphia, Lea & Febiger, 1948 Cloth, $6 50

How to Become a Doctor A Complete Guide to the Study of Medicine, Dentistry, Pharmacy, Veterinarian Medicine, Occupational Therapy, Chiropody and Foot Surgery, Optometry, Hospital Administration, Medical Illustration, and the Sciences By George R Moon, M A. Octavo of 131 pages, illustrated Philadelphia, Blakiston Co , 1949 Cloth, $2 00

Outwitting Your Years By Clarence William Lieb, M D Duodecimo of 278 pages New York, Prentice-Hall, 1949 Cloth, $2 75

Help Yourself to Better Sight. By Margaret Darst Corbett Duodecimo of 218 pages, illustrated. New York, Prentice-Hall, 1949 Cloth, $2 50

Mycoses and Practical Mycology A Handbook for Students and Practitioners By N Gohar, M R C S (Eng) Octavo of 234 pages, illustrated. Baltimore, Williams & Wilkins Co , 1948 Cloth, $6 00

Textbook of Medicine By Various Authors Edited by Sir John Conybeare, D M (Oxon) Octavo of 875 pages, illustrated. Baltimore, Williams & Wilkins Co , 1949 Cloth, $8 00

The Medical Clinics of North America New York Number May, 1949 Octavo, illustrated Philadelphia, W B Saunders Co , 1949 Published Bimonthly (six numbers a year) Cloth, $16 *net, Paper, $12 net*

New Hope for the Handicapped. The Rehabilitation of the Disabled from Bed to Job By Howard A. Rusk, M D , and Eugene J Taylor Octavo of 231 pages New York, Harper & Bros , 1949 Cloth, $3 00

Vaponefrin Aerosol Library Edited and Compiled by Marie E Herring, in Cooperation with the Research Department of the Vaponefrin Company Vol I A Complete Compilation of Principal Articles on Aerosol Therapy Through 1948, Excerpted in the Author's Own Words Octavo of 168 pages, illustrated. Upper Darby, Pa., Vaponefrin Co , 1949 Paper, $2 50

The New York Academy of Medicine Its First Hundred Years By Philip Van Ingen, M D Octavo of 573 pages, illustrated New York, Columbia University Press, 1949 Cloth, $10 00

Clinical Chemistry in Practical Medicine By C P Stewart, M Sc (Dunelm), and D M Dunlop, M D Third edition Octavo of 324 pages, illustrated. Baltimore, Williams & Wilkins Co , 1949 Cloth, $5 00

Sexual Disorders in the Male By Kenneth Walker, F R C S , and Eric B Strauss, D M Third edition Octavo of 260 pages, illustrated Baltimore Williams & Wilkins Co , 1948 Cloth, $3 50

Syphilis Its Course and Management. By Evan W Thomas, M D Octavo of 317 pages, illustrated. New York, Macmillan Co , 1949 Cloth, $5 50

Practical Orthoptics in the Treatment of Squint (and Other Anomalies of Binocular Vision) By T Keith Lyle, M D , and Sylvia Jackson, D B O , with the assistance of Lorna Billinghurst, D B O , and Diana Salsbury, D B O Third edition Octavo of 271 pages, illustrated. Philadelphia, Blakiston Co , 1949 Cloth, $8 50

Diagnostic Tests for Infants and Children. Principles, Clinical and Laboratory Procedures, Interpretation. By H Behrendt, M D Octavo of 529 pages, illustrated. New York, Interscience Publishers, 1949 Cloth, $7 50

Cardiovascular Disease in General Practice By Terence East, D M (Oxon) Third edition. Octavo of 208 pages, illustrated. Philadelphia, Blakiston Co , 1949 Cloth, $4.00

The 1948 Year Book of Pathology and Clinical Pathology Pathology edited by Howard T Karsner, M D Assistant Editor, Herbert Z Lund, M D Clinical Pathology edited by Arthur Hawley Sanford, M D Duodecimo of 538 pages, illustrated Chicago, Year Book Publishers, 1949 Cloth, $4.50

Character-Analysis By Wilhelm Reich, M D Translated by Theodore P Wolfe, M D Third edition Octavo of 516 pages, illustrated. New York, Orgone Institute Press, 1949 Cloth, $6 00

Guiding Human Misfits. A Practical Application of Individual Psychology By Alexandra Adler, M D Revised edition Duodecimo of 114 pages New York, Philosophical Library, 1948. Cloth, $2 75

Manual of Medical Emergencies By Stuart C Cullen, M D and E G Gross, M.D Duodecimo of 267 pages, illustrated Chicago, Year Book Publishers, 1949 Cloth, $3 75

Rapid Microchemical Methods for Blood and CSF Examinations. By F Rappaport, Ph D Octavo of 404 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $8 75

America's Health. A Report to the Nation. By the National Health Assembly Official Report Octavo of 395 pages New York, Harper & Bros , 1949 Cloth, $4 50

BOOKS REVIEWED

The Case Against Socialized Medicine A Constructive Analysis of the Attempt to Collectivize American Medicine By Lawrence Sullivan. Second edition Duodecimo of 54 pages Washington, Statesman Press, 1949 Cloth, $1 50

Visionary bureaucrats, seeking to foist a foreign way of life upon an unsuspecting public and beclouding the outlook of many highly placed in political and other circles, do not hesitate to use questionable interpretations of statistics, advance specious arguments insidiously distorting the truth, and, with a simulated cloak of outraged righteousness, denounce those who seek to prove them wrong, blithely branding as enemies of the people those who wish to keep American medicine American.

Nowhere is this more aptly demonstrated than in Lawrence Sullivan's latest book, *The Case Against Socialized Medicine*

Based on the sworn testimony of witnesses before the committees of the House and Senate, Sullivan's thesis builds up a powerful argument against the monstrous attempt on the part of bureaucrats to bring the American public further into their power With laudable efforts to remain unbiased, the author presents the history of socialized medicine in other lands

His well-documented account clearly shows the dangers ahead for those who prefer the American system of freedom and ordered liberty under law for

"If American medicine can be taken over by the government, then every other activity also may be socialized under a gigantic bureaucracy "

This book is must reading for Americans bred in the traditions of free people who do not want to see medical advances curtailed by endless red tape nor see their country's health sink to a low level "when village doctors are selected like postmasters."

Fantastic? Not at all!

Read *The Case Against Socialized Medicine* by one of Washington's veteran newspapermen and a distinguished magazine and radio reporter and you'll agree with him that

"So long as we keep American medicine out of the bureaucratic shackles, we shall maintain our world leadership in health and welfare But all history tells us that once the bureaucrats take over, freedom is smothered and progress stops."

MORRIS WEINTROB

The Biological Standardization of the Vitamins By Katharine H Coward, D Sc Second edition Octavo of 224 pages, illustrated. Baltimore, Williams & Wilkins Co , 1947 Cloth, $5 00

This clear and concise handbook on biologic standardization of the vitamins should be a valuable reference book for workers in the field of nutrition Technics are simply and adequately described, and methods of computation illustrated by examples Titles and illustrations are well chosen

The closing chapters on statistical methods may prove especially helpful for both theoretical and practical uses

ARTHUR SHAPIRO

The Medical Clinics of North America. Chicago Number January, 1949 Octavo Philadelphia, W B Saunders Co , 1949 Published Bimonthly (six numbers a year) Cloth, $16 net, Paper, $12 net.

This edition of the *Clinics* has excellent reviews, with good bibliography, of dermatomyositis, sarcoidosis, disseminated lupus erythematosus, exfoliative dermatitis, and the herpes problem

ANDREW BABEY

The Basis of Chemotherapy By Thomas S Work, Ph.D , and Elizabeth Work, Ph.D Octavo of 435 pages, illustrated. New York, Interscience Pubs , 1948 Cloth, $6 50

The authors of this book have endeavored to bring the microbiologist, bacteriologist, biochemist, and organic chemist up to date.

The book is quite comprehensive and is a fine starting point for such as require the basic data for research.

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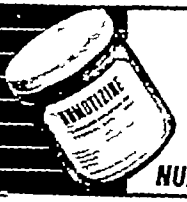


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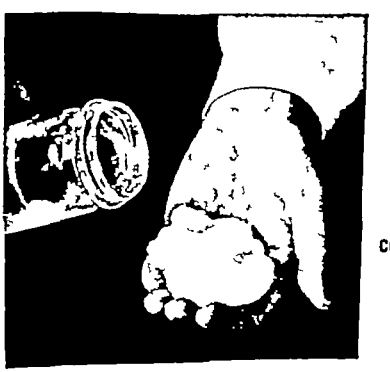
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December 1, 1949

Scientific Articles

Symposium Methods of Tuberculosis Case-Finding in the Community

Diarrhea of the Newborn—An Approach to Control Through Minimum Standards of Nursery Care

The Peptic Ulcer Problem

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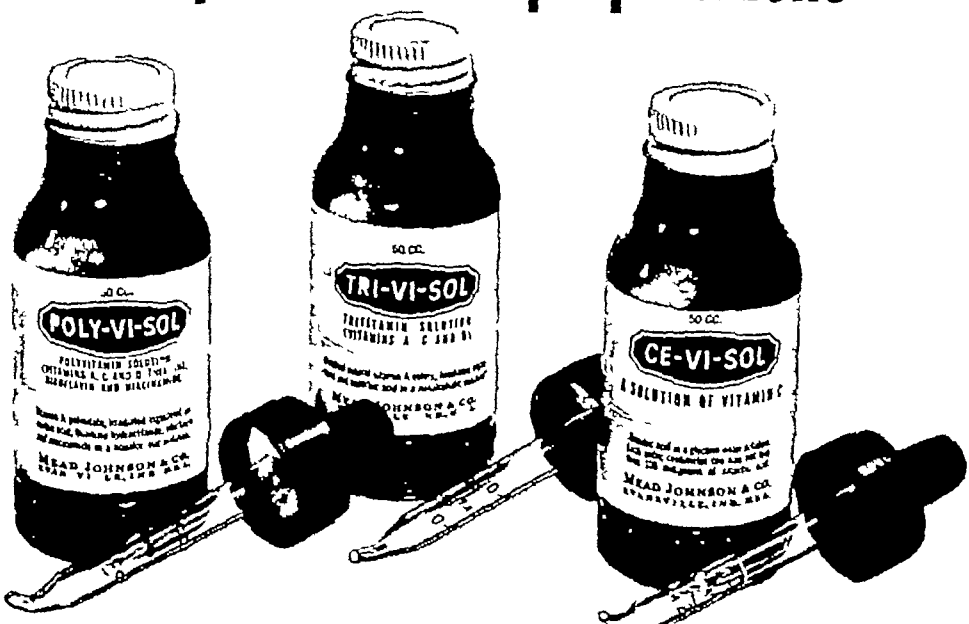
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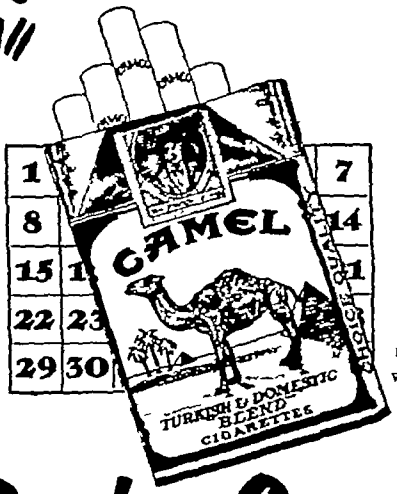


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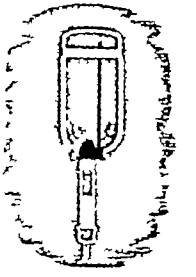


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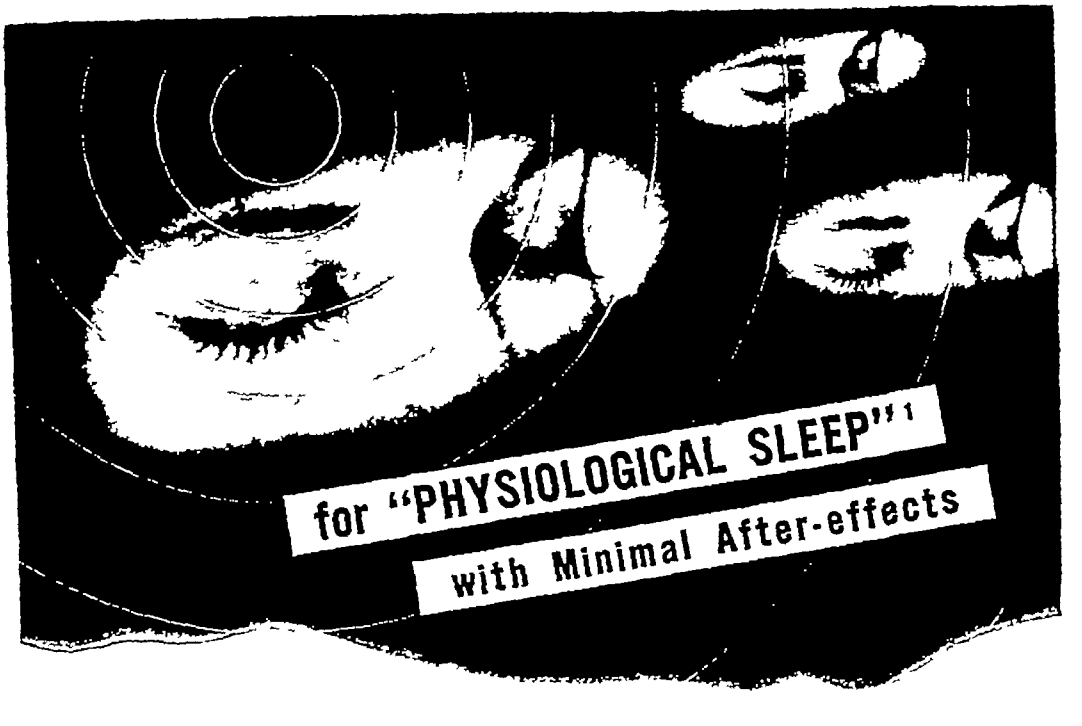
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[1]N.N.R., 1947 p 398
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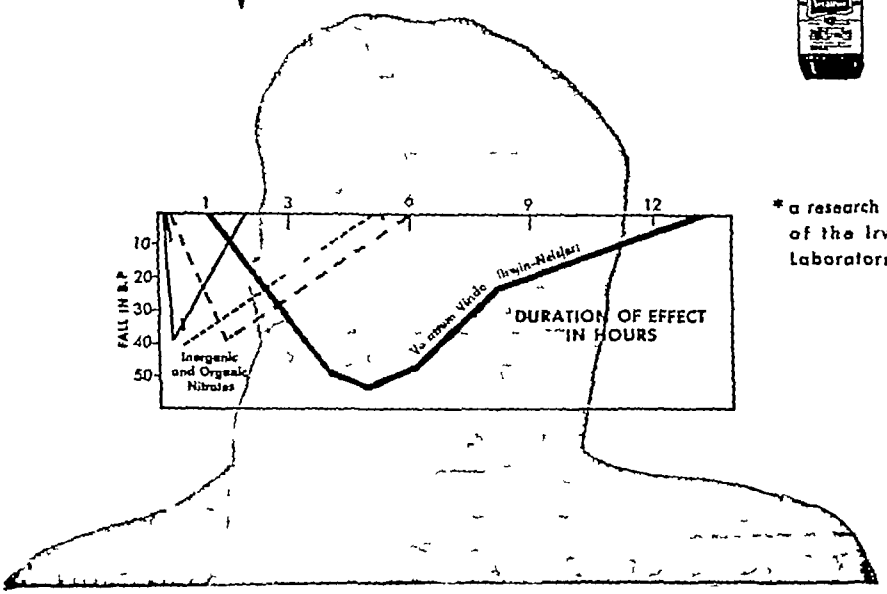
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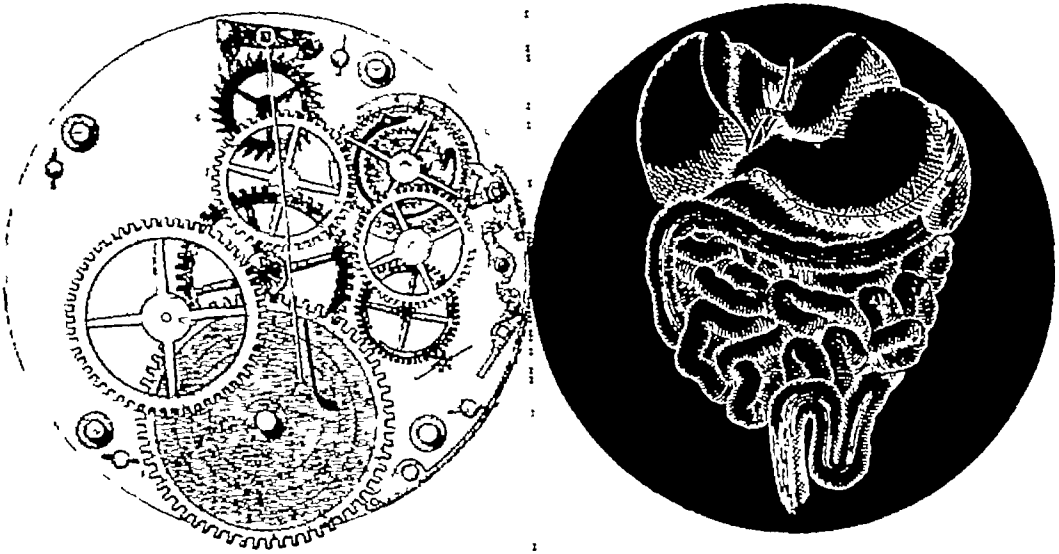
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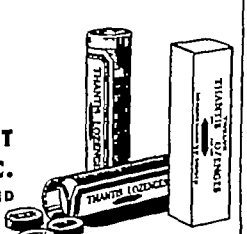
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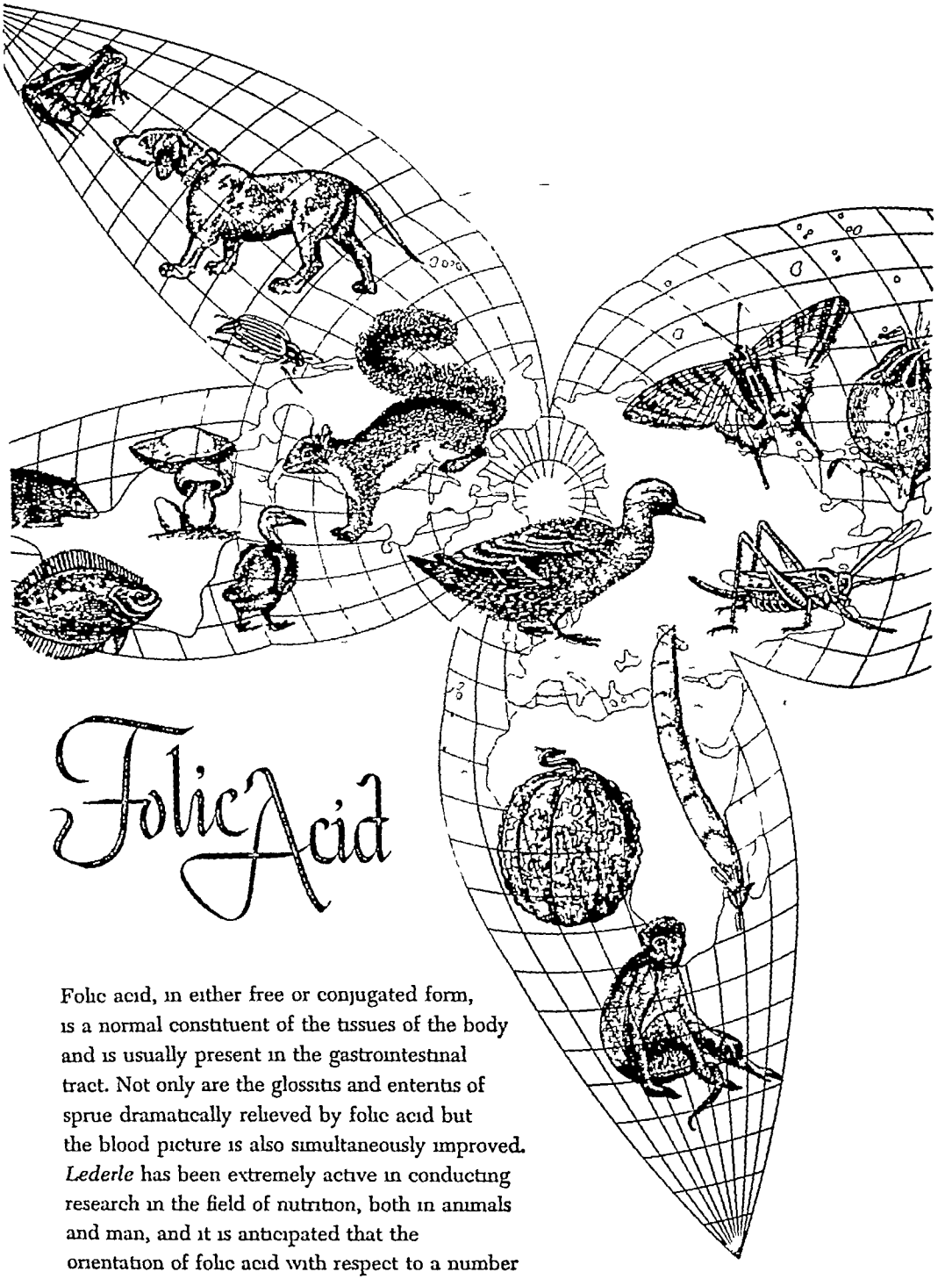
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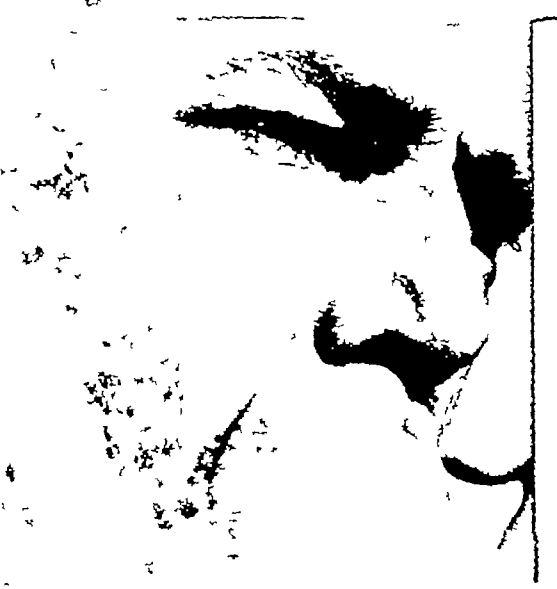
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Veratrite (Irwin Neisler & Co) 2745

Medical & Surgical Supplies

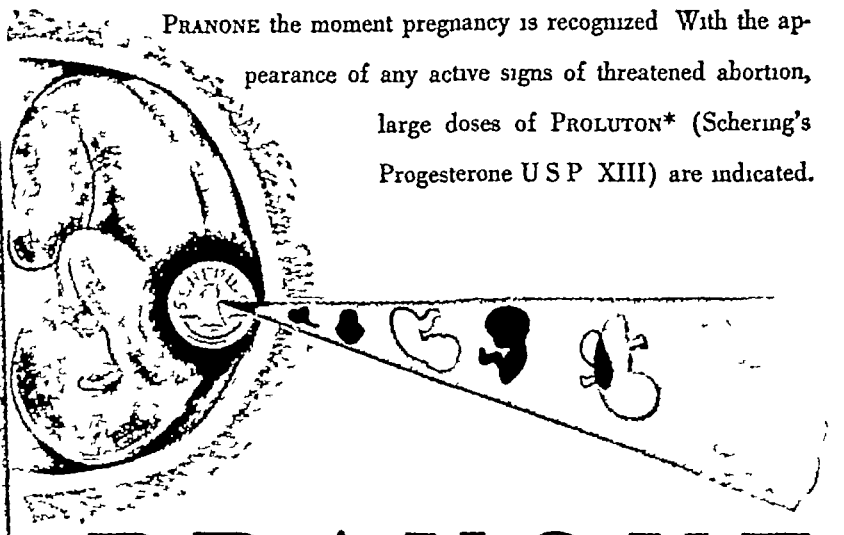
Artificial Breasts (Lillian Berman) 2752
Orthopedic Shoes (Pediforme Shoe Co) 2752
X-Ray Equipment (Picker X-Ray Corp) 3rd cover

Miscellaneous

Cigarettes (R. J Reynolds Tobacco Co) 2737

Foresight in pregnancy

PRANONE,* Schering's orally effective corpus luteum preparation makes it possible to prevent many of the mishaps of pregnancy due to corpus luteum deficiency A history of abortion warrants the usage of PRANONE the moment pregnancy is recognized With the appearance of any active signs of threatened abortion, large doses of PROLUTON* (Schering's Progesterone U S P XIII) are indicated.

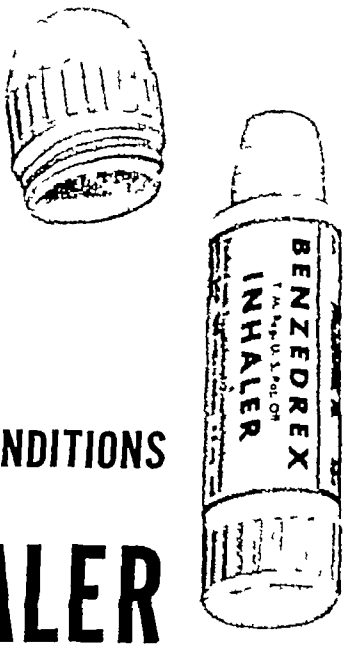


PRANONE

(Anhydrohydroxy progesterone U.S.P. XIII)

PRANONE can serve as the oral equivalent to PROLUTON administered by injection In addition to maintaining pregnancy in patients with histories of abortions, PRANONE has proved to be efficacious for the relief of dysmenorrhea and premenstrual tension Patients appreciate the effectiveness and convenience of therapy afforded them with PRANONE

Schering CORPORATION BLOOMFIELD, NEW JERSEY



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SO MUCH BETTER THAT WE HAVE DISCONTINUED BENZEDRINE* INHALER

Our new BENZEDREX INHALER was tested by rhinologists in controlled studies for more than two years Reports were unanimously enthusiastic

Nevertheless, to make absolutely certain that BENZEDREX INHALER was the best volatile vasoconstrictor ever developed we decided to test it with a large segment of the medical profession under actual practicing conditions

We therefore replaced 'Benzedrine' Inhaler with BENZEDREX INHALER in the entire state of California Now, after more than a year's use, California physicians tell us that they and their patients find BENZEDREX INHALER the best inhaler they have ever used

BENZEDREX INHALER has exactly the same agreeable odor as 'Benzedrine' Inhaler, but gives even more effective and prolonged shrinkage, and does NOT produce excitation or wakefulness

* Benzedrine (racemic amphetamine, S.K F) and 'Benzedrex' T M Reg U S Pat Off Each Benzedrex Inhaler is packed with 1 cyclohexyl 2-methylaminopropane, S.K F , 250 mg., and aromatics

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA

NEW METHOD FOR RELIEF OF ALLERGIC NASAL CONGESTION

Pyribenzamine

NASAL SOLUTION IN NEBULIZER

Distributes mist of minute droplets of Pyribenzamine hydrochloride Nasal Solution 0.5% throughout nasal passages.

Relief is immediate—complete—prolonged. No side reactions except occasional transient stinging. Convenient to use and carry.

Non-refillable. Provides several hundred applications. Dosage one application to each nostril every 3 to 4 hours.

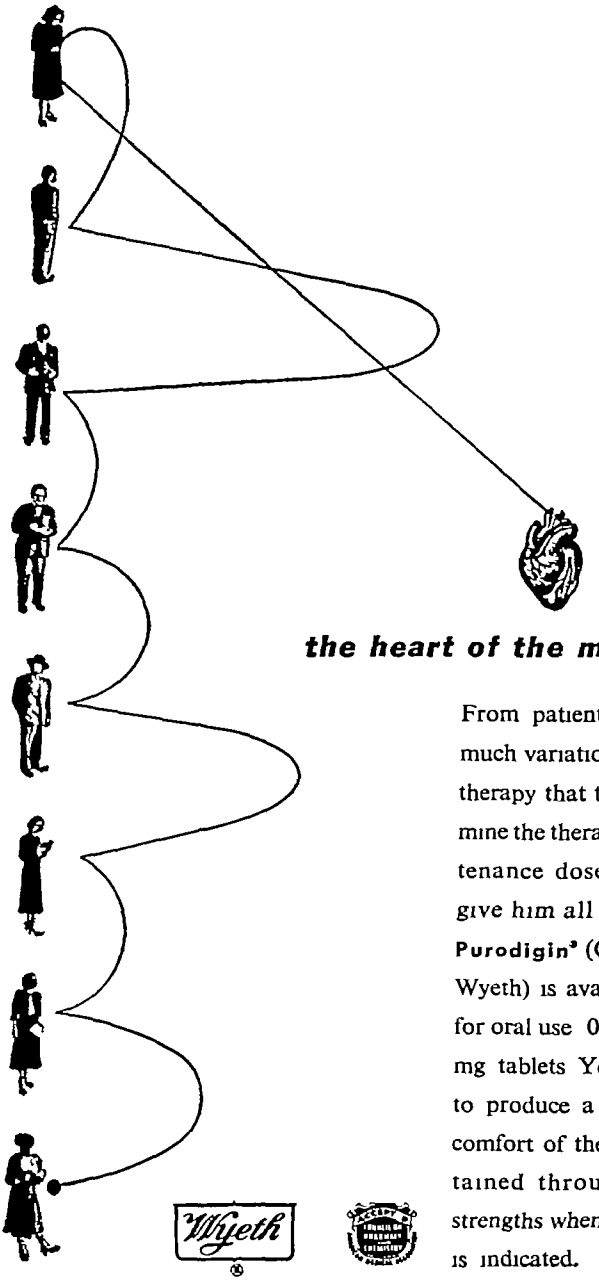




Ciba

PHARMACEUTICAL PRODUCTS, INC.
SUMMIT, NEW JERSEY

PYRIBENZAMINE (brand of tripelennamine)
T. M. Reg. U. S. Pat. Off. 2/1218M

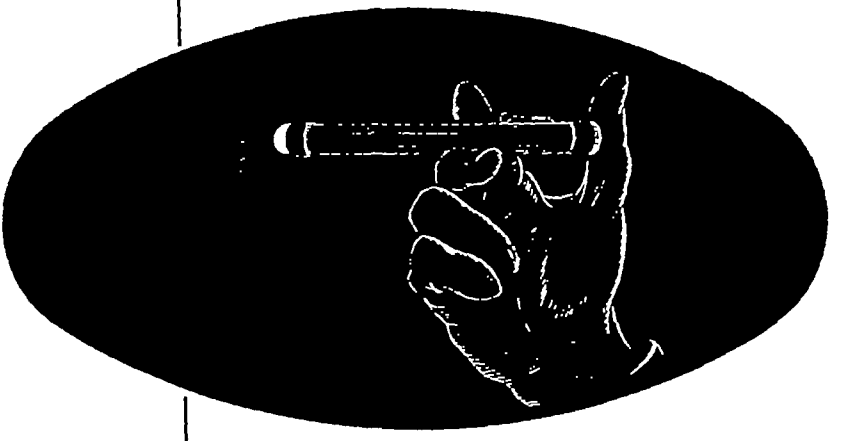


the heart of the matter...

From patient to patient, there is so much variation in response to digitalis therapy that the physician must determine the therapeutically effective maintenance dose for each patient To give him all the flexibility needed, **Purodigin**® (Crystalline Digitoxin, Wyeth) is available in three strengths for oral use 0 1 mg , 0 15 mg , and 0.2 mg tablets You can rely on Purodigin to produce a constant response, the comfort of the patient is easily maintained through the varied tablet strengths whenever a change of dosage is indicated.

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After Tonsillectomy
In Pharyngitis . . .
Acute and
Chronic Tonsillitis . . . *for analgesia and antipyresis. especially in young children*

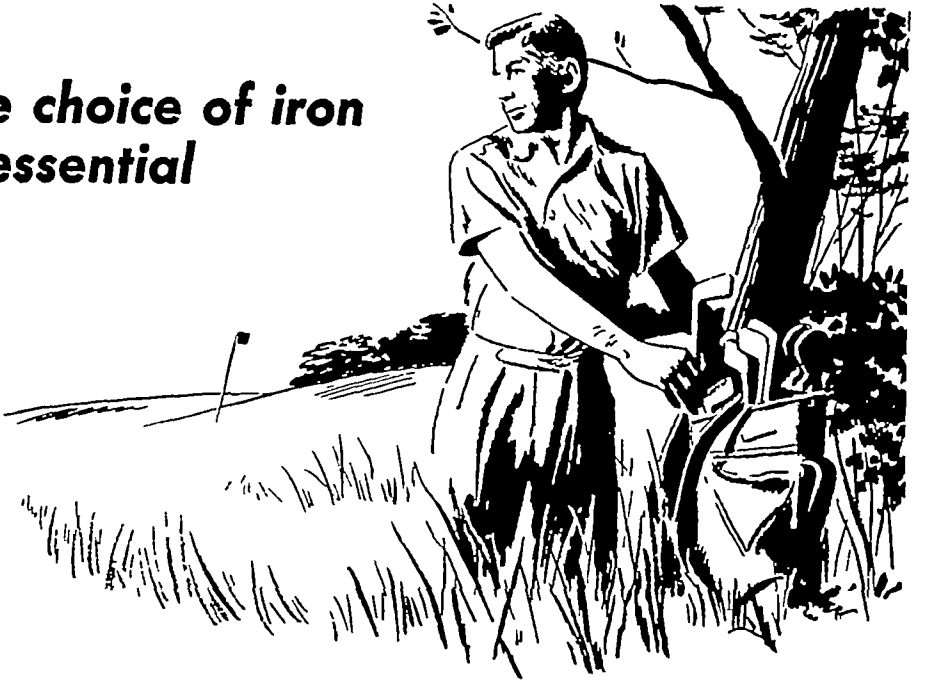
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SALIVARY ANALGESIA

Contains 3½ grains of aspirin
in a pleasantly flavored chewing gum base
acceptable to all patients Ethically promoted

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The choice of iron is essential



The choice in iron deficiency

is OVOFERRIN

As an effective, acceptable hematinic, Ovoferrin satisfies the most rigid requirements at all ages and in all conditions where iron is indicated Since it is palatable and easily assimilated without untoward side effects, it is a selection of choice for

the build-up without a let-down

℞ MAINTENANCE DOSAGE

For Adults and Children One teaspoonful 2 or 3 times a day in water or milk

℞ THERAPEUTIC DOSAGE

ADULTS One tablespoonful 3 or 4 times daily in water or milk CHILDREN One to 2 teaspoonfuls 4 times daily in water or milk

Professional sample on request



Made only by the

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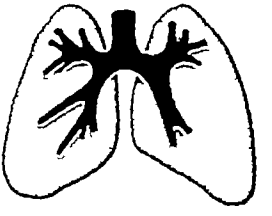
Sodium Penicillin G

by Tongue, by Lung, by G. I. Tract



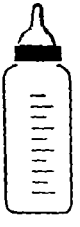
By Tongue

Sublingual PENALEV tablets (50,000 or 100,000 units) are rapidly absorbed, quickly create therapeutic penicillin blood levels



By Lung

Potent penicillin G aerosol solutions can be prepared readily by dissolving PENALEV tablets in water or normal saline



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PENALEV tablets dissolve promptly and completely in milk, fruit juices, or infant formulas, without appreciably changing their tastes



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Soluble tablets sodium penicillin G 50 000 and 100,000 units, vials of 12 tablets crystalline
Sharp & Dohme, Philadelphia 1, Pa

Penalev®

SHARP & DOHME

Soluble Tablets Crystalline

Sodium Penicillin G

New
powder
inhalation
therapy
for



Now the simplicity and convenience of powder inhalation therapy promises prompt relief in bronchial asthma, thanks to an effective new drug, available as a powder in Aerohalor* Cartridges The drug is *Norisodrine* Sulfate, a sympathomimetic amine with a marked bronchodilating effect

For oral inhalation, the patient uses the Aerohalor®, Abbott's powder inhaler, and a multiple-dose cartridge containing *Norisodrine* Sulfate powder He follows the "smoke it like a pipe" procedure already popularized by the Aerohalor, except that for a single dose he inhales only a small portion of the contents of one cartridge Relief usually follows quickly Effectiveness of the drug has been confirmed by clinical observation [1,2]

When the drug is properly administered, side effects are infrequently encountered and usually are minor in nature However, overdosage can result in disturbing side-effects It is imperative that the physician know and carefully instruct the patient in the methods of administration and precautions to be taken It is recommended that the dosage for each patient be carefully established under the physician's personal supervision Write now for your copy of literature ABBOTT LABORATORIES NORTH CHICAGO ILL.

HOW SUPPLIED

POWDER

10% POWDER—Each Aerohalor Cartridge contains Norisodrine Sulfate 10 mg and Lactose 90 mg Supplied in boxes of 12

25% POWDER—Each Aerohalor Cartridge contains Norisodrine Sulfate 25 mg and Lactose 75 mg Supplied in boxes of 12

SOLUTION

NORISODRINE SULFATE SOLUTION 1 100—For use with hand nebulizer or by oxygen aerosolization Each cc contains Norisodrine Sulfate 10 mg In bottles of 10 cc

1 Krasno L R Grossman, M and Ivy A C (1948) The Inhalation of Norisodrine Sulfate Dust, Science 108 476 Oct 29 2 Krasno L R Grossman M I and Ivy A C (1949) The Inhalation of 1 (3 4 Dihydroxyphenyl) 2 Isopropylaminoethanol (Norisodrine Sulfate Dust) J Allergy 20 111 March.

*Trade Mark for Abbott Sifter Cartridge

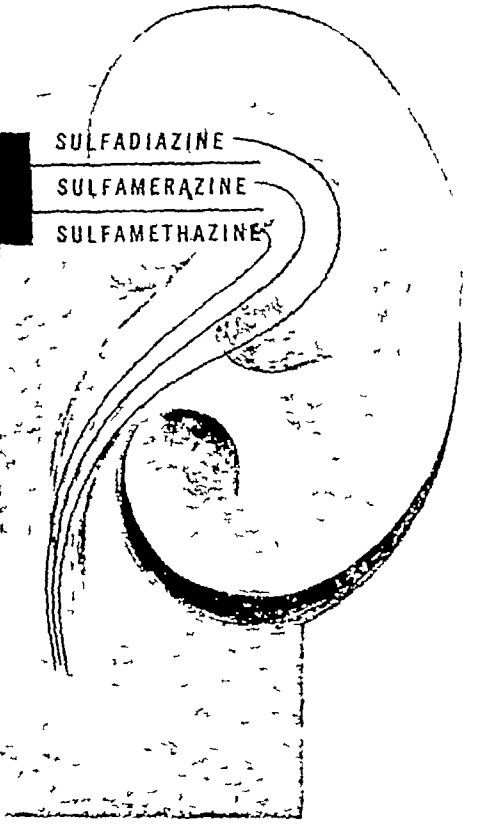
NORISODRINE® SULFATE

(Isopropylarterenol Sulfate, Abbott)

New Sulfa Combination...

TERFONYL

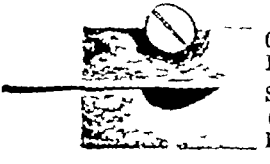
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HIGH BLOOD LEVELS
All three components are absorbed and excreted independently High blood levels can be maintained without kidney concretion and with minimal sensitivity reactions

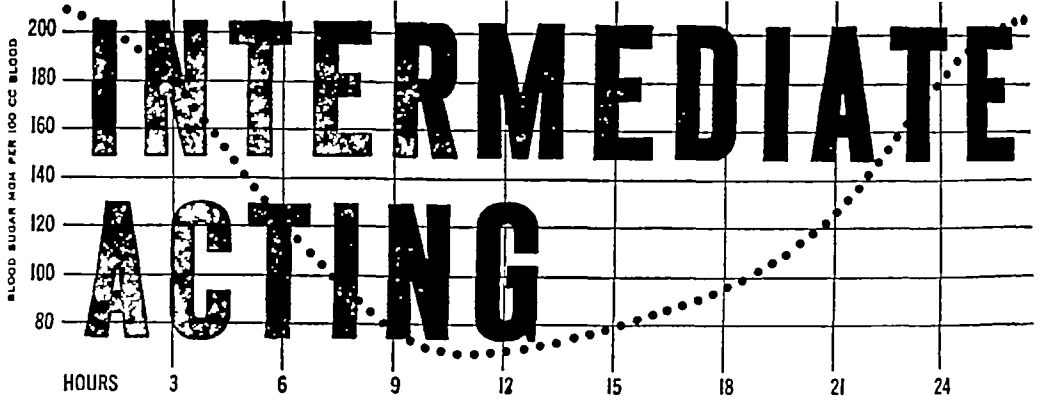
WIDE ANTIBACTERIAL RANGE
All three components have a wide antibacterial range and are highly effective in the treatment of pneumonia and other common infections



0 5 Gm tablets
Bottles of 100 and 1000
Suspension, 0 5 Gm per 5 cc.
(pleasant raspberry flavor)
Pint bottles

"TERFONYL" IS A TRADEMARK OF E. R. SQUIBB & SONS

SQUIBB MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858



INTERMEDIATE ACTING

GLOBIN INSULIN

B.W.&CO.

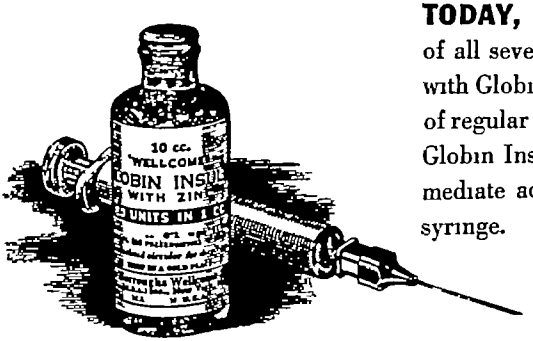
was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin"[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B W & Co'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B W & Co'—or with a 2 1 mixture of regular insulin protamine zinc insulin *Ready to use* Globin Insulin 'B W & Co' provides the desired intermediate action without preliminary mixing in vial or syringe.

In 10 cc vials U-40 and U-80



B.W.&CO.'—*a mark to remember*

1 Rohr J H and Colwell A R : Arch Int Med 82 54 1948.
2. Ibid Proc. Am Diabetes Assn. 8:37 1948.

BURROUGHS WELLCOME & CO. (U S.A.) INC. Tuckahoe 7, New York



The most "persuasive" oral germicide you can prescribe

1. ***Cēpacol persuades a wide range of oral bacteria to surrender within 15 seconds after contact***[1]

2. ***Cēpacol's pleasant taste persuades your patients to use it***

The rapid antisepsis[2] and soothing relief which Cēpacol brings to inflamed, sore throats are important. Along with the fact that Cēpacol is non irritating, non toxic, and does not interfere with tissue healing Too, patients are extremely grateful to you for prescribing something so effective that also is so *pleasant* to use—as either gargle or spray

CĒPACOL®

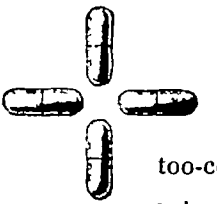
The alkaline germicidal solution that works in partnership with saliva

Merrell
1828
CINCINNATI U S A

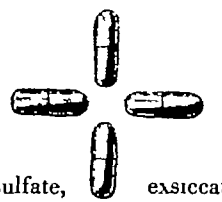
NOW AVAILABLE— Cēpacol Throat Lozenges! These convenient, pleasant tasting lozenges, dissolved slowly in the mouth provide a soothing, analgesic solution to relieve the dryness and irritation of sore throat

1. As shown in laboratory studies. 2. Cēpacol contains an effectl germicidal detergent the quaternary ammonium salt Cetepyra® Chloride 1 4000.

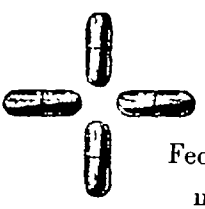
in ill-defined anemias...

write **FEOSOL PLUS** 

FEOSOL PLUS is the ideal single preparation with which to correct all too-common dietary deficiencies and promote optimal metabolic efficiency

each FEOSOL PLUS  **capsule contains**

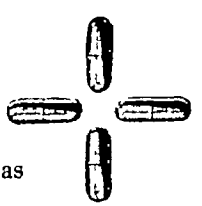
Ferrous sulfate, exsiccated, 200 0 mg ,
liver concentrate powder (35 1), 325 0 mg , folic acid, 0 4 mg ,
thiamine hydrochloride (B_1), 2 0 mg , riboflavin (B_2), 2 0 mg ,
nicotinic acid (niacin), 10 0 mg , pyridoxine hydrochloride (B_6), 1 0 mg ,
ascorbic acid (C), 50 0 mg , pantothenic acid, 2 0 mg

FEOSOL PLUS 

by no means replaces Feosol
Feosol is the standard therapy
in simple iron-deficiency anemias

Dosage—3 capsules daily, one after each meal
Available in bottles of 100 capsules

Smith, Kline & French Laboratories, Philadelphia

FEOSOL PLUS 

For the correction of ill defined secondary anemias









iver Plus Stomach = Red Blood Cells

Liver-stomach concentrate was discovered and evaluated in the Lilly Research Laboratories It was given the trade-mark name 'Extralin' (Liver-Stomach Concentrate, Lilly) To this date it stands out as a most effective oral treatment for pernicious anemia Twelve Pulvules 'Extralin' per day will produce a standard reticulocyte response in previously untreated cases in relapse The same dose will maintain the blood picture of the average uncomplicated case at normal levels Neurological involvement is prevented When neural symptoms are present, progression is promptly arrested For cases in which oral antipernicious-anemia therapy is indicated, specify Pulvules 'Extralin ' 'Extralin' may be prescribed alone or as a supplement to injectable liver extract



Lilly

ELI LILLY AND COMPANY INDIANAPOLIS 6 INDIANA, U S A



new

common cold therapy

without drowsiness

Early treatment with Thephorin AC tablets will frequently abort or relieve the common cold with little likelihood of drowsiness Thephorin AC is therefore of particular value to motorists machine operators and ambulatory patients who must remain alert It combines the antihistaminic effect of Thephorin with the action of acetophenetidin acetylsalicylic acid and caffeine In over 2,000 attacks of the common cold, Brewster* found that Thephorin "is effective and will abort a high percentage of the attacks"

HOFFMANN LA ROCHE INC NUTLEY 10 • N J

Thephorin®-AC

tablets

'Roche'

J M. Brewster *In Press.*
(*Thephorin—brand of phenindamine*)



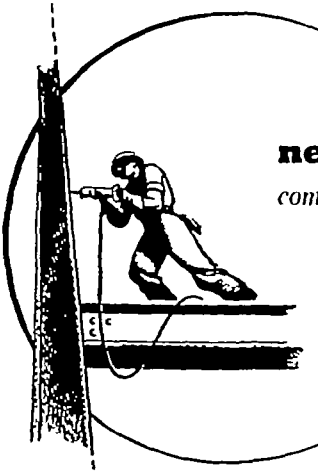




Liver Plus Stomach = Red Blood Cells



Lilly



new

common cold therapy
without drowsiness

Early treatment with Thephorin AC tablets will frequently abort or relieve the common cold with little likelihood of drowsiness Thephorin AC is therefore of particular value to motorists machine operators and ambulatory patients who must remain alert It combines the antihistaminic effect of Thephorin with the action of acetophenetidin, acetylsalicylic acid and caffeine In over 2,000 attacks of the common cold, Brewster* found that Thephorin "is effective and will abort a high percentage of the attacks "

HOFFMANN LA ROCHE INC NUTLEY 10 • N J

Thephorin®-AC
tablets

'Roche'

J M. Brewster *In Press.*
(*Thephorin—brand of phenindamine*)

NEW YORK STATE JOURNAL OF MEDICINE

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VOLUME 49 | DECEMBER 1, 1949 | NUMBER 23

Editorials

Tactics

Tactics are the art of using or handling available resources to accomplish an end Physicians are accustomed to their daily use in the battle for the lives of patients. In medicine, however, the opposing forces are either inanimate or, as in the case of micro-organisms, without apparent intelligent direction or leadership, finally, as in the case of neoplasms, purposeless malignancies Physicians deal tactically with these opposing forces of destruction with the patient's economy, his person, and his environment as the battleground. Perhaps only in the field of psychiatry does he employ fully resources other than material

Accustomed by education and practice to the artful employment of increasingly excellent medical tactics against disease in sick people, what is his predicament when the problem calls for the tactical use of available resources vis-à-vis well people, aggregations of well people, with intelligent leadership, well people who would detach the control of his profession from him? Here, indeed, is a predicament, and a serious one

It is probably safe to say that most physicians know little about well people and have wasted little or no time in studying them beyond establishing, for scientific purposes, certain norms. This is not, perhaps, a serious matter, as long as no more is involved than the person-to-person relationships of the individual practice of medicine But it becomes more serious and may be calamitous even, when physicians in aggregate seek to accomplish an end through the intermediary of well persons As a matter of tactics, an aggregation of physicians such as a state medical society should be able, at least theoretically, to develop a technic of using or handling its available resources to conduct successfully, let us say, a legislative campaign in the public interest

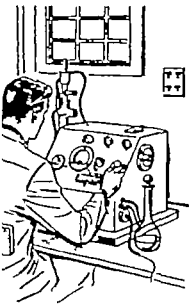
Practically, such a campaign might possibly fail Because, if leadership for it were developed from the ranks of the pro-



A 15" x 12" reproduction of this illustration by Harold Anderson is available upon request



COMING: THE GERIATRICIAN





Increasing longevity is prima-facie evidence of medical progress However, as more people grow older, physicians are confronted with an ever-increasing number of clinical problems which arise out of the aging process It is no longer fantastic to assume that geriatrics will someday take its place at the opposite pole from pediatrics as a full-fledged specialty practice

Diseases of the heart, kidney, and blood vessels, pernicious anemia, diabetes mellitus, cancer, and other conditions which strike most frequently after middle age have engaged a large share of the time and thought of Lilly research workers Crystalline digitoxin, liver extract, liver-stomach concentrate, and Insulin are but a few of the important contributions in which Eli Lilly and Company has shared Perfecting existing preparations, as well as searching for answers to unsolved problems, keeps teams of scientists busy at the Lilly Research Laboratories Practical developments are made available to the medical profession wherever ethical pharmaceutical and biological products are sold

Lilly

LILLY SPECIALISTS SERVE THE MEDICAL PROFESSION

portance to the medical profession, since, in the wake of strikes, shutdowns, slowdowns, and unemployment, worry, anxiety, and uncertainty swell the numbers of those who will shortly crowd doctors' offices and increase the patient roster of hospitals already overloaded It is true that unemployment insurance, the departments of public welfare, and the numerous charitable organizations can and do intervene to cushion the acute hardship for a while

But continuing aid of this type seems to us to be unhealthy—a magnificent gesture certainly, but no substitute for a healthy independence Such aid begs the question, does it not? It ignores the cynical leadership which has coerced the working man and woman for the aggrandizement of its own power into walkouts often of an irresponsible nature Such leadership trades upon the immunity granted to labor by the Clayton Act from the ordinary operation of the anti-trust laws Result Loss of independence within the unions, creation of a dependency of the working man to questionable leadership, increase in cost of living for everybody, abuse of public and private charity, creation of public inconvenience affecting union and non-union people alike, aggravation of ordinary and usual illness by unnecessary worry, loss of work and of *the security of independence*

More and more the economic trend is toward the futile goal of higher wages and a putative "security" for union members only, within the larger framework of national social security Viewed dispassionately against the background of the recent national debt (1948) of some $252,292,246,513, or about $1,721 45 per capita, "fixed" charges of $35,000,000,000 a year, and some $5,500,000,000 interest on the national debt, one might well pause to ponder Who is secure from what and for how long?[1]

[1] New York World Telegram Oct 2 1949 p 22

Convalescence Study

In its generally accepted meaning, convalescence is the process of gradual recovery from sickness, it is also the period during which such recovery takes place, and the state of the body during this period Convalescence is not only a medical problem, it has grave financial and other implications

Since the able-bodied must carry the weight of those who are disabled, the problems of convalescence are important to the nation's economy Little has been done in the field of convalescence other than to afford patients an opportunity to rest in a neutral environment with a good normal diet Not content with this simple procedure, a group from St Luke's Hospital, New York City, are now interesting themselves in the basic problems involved during the convalescent period It is their hope to be able eventually to modify the speed of convalescence through specific measures

Technics to be employed include a personalized approach to the problem of each patient, including a careful history of his diet, an evaluation of the social service history and its bearing upon the patient's psychologic attitude toward his or her own physical state, an effort to orient the patient's own thinking about his illness and stimulate in him a positive desire to help himself get well, an attempt to correct any suspected dietary deficiency specifically, using such diet supplements as seem indicated, if the patient is unable or unwilling to eat a sufficient quantity of the proper foods, and an effort to be made to determine the optimum protein intake for various convalescent states An attempt is to be made to determine the best approach to the problem of deficiencies in hemoglobin Other phases are the use of occupational therapy of a specific nature to improve function of specific parts of the body, the effect of the psychologic approach to the patient's particular problem upon the rate of recovery, the study of the effect of high protein feeding upon poor cardiac tone from any cause, and a study of the relationship of the eryth-

fession, such generalship would be seriously deficient in the strategical know-how to conduct it successfully If, on the other hand, the campaign were directed by hired professional nonmedical strategists, these would be considered mercenaries, and a tactical error of the first magnitude would be entailed in some loss of allegiance to such leadership on the part of the individual physician

This creates a serious dilemma Chief among such a society's available resources is the individual physician Can he be developed for leadership in the sense here under discussion? Outside of his practice and in relation to well people, his tactical training and study has not been seriously undertaken, and, with few exceptions, his tactical sense does not exist Possibly more farsighted leadership in the profession should have made the subject of tactics as they relate to well people a matter of curricular study, or at least postgraduate instruction It was inevitable that the expansion of the field of medicine as distinct from private practice would necessitate the development of an art not formerly of great importance in private practice Now it is realized that there is a great need for the comprehensive understanding of what makes well people and groups of well people "tick" So successful has scientific medicine become that the well vastly outnumber the sick and live longer than in the past

Doctors can be trusted to deal scientifically and competently with the sick and their medical care That is their business They are still the sole reliance of this hapless group of people Yet it is the growing horde of the well who dispose of the vast forces of potential disruption What do they think of doctors and the medical profession? The relatively small company of the sick upon whom the doctors pour out their wealth of knowledge and skill are more inclined to be resentful of their illness than pleased by their improvement or recovery Well again, they join the ranks of those who can make or break the future structure of medicine

Tactically, doctors are at a disadvantage in that they lack knowledge of the intentions of the well, they ignore, for the most part, the historical fact of the growing organization of well people into groups whose actions and thought patterns are controllable to an extent, groups whose attitudes can be compelled by rascals as well as by sincere leaders Lacking, themselves, any great amount of cohesiveness by reason of their training as individualists, doctors tend to underestimate the effective striking force of disciplined cohesion in a vast group of well people who resent physicians as the visible symbols of potential pain, frustration, expensive sickness, and disability, all of which, be it noted, the doctors and medical science are laboring mightily to abolish!

It is not too late to commence the tactical training of doctors The A M A, in its Public Relations Bureau, has established a general staff This staff, however, while it can and does map out over-all strategy for the public educational campaign, yet must depend upon lower echelons to make this strategy effective in the field of operations. It is here that the lack of tactical art may prove to be highly obstructive to the accomplishment of the general strategy

It is absurd to jeopardize a campaign by good generalship of poorly trained effectives under field commanders having little tactical sense and less tactical training Let the component units think this over It is not too late, it would seem, to initiate a study of tactics by county societies Some few have done so In this State with a well-organized Public Relations Bureau a beginning was made early this year in the speakers training courses held regionally This training should be followed up and expanded and must include more doctors Only when thousands of physicians all over the nation feel themselves to be a vital, sure, well-informed, well-equipped field force of effectives can a well-led campaign of public education and legislative adequacy be accomplished

The Creeping Paralysis of Dependency, I

As this is written, the principal basic industries of the country—coal, steel, railroads, and many more secondary manufactures—are slowing down This is of im-

turned to other temporarily more popular and novel fields of health endeavor

To meet this situation a Committee on Endemic Goiter was appointed by the American Public Health Association in 1940 under the chairmanship of the late Dr Fred Minor of Flint, Michigan, and included in its membership representatives of the A M A, U S P H S, Food and Drug Administration, Nutrition Board of the National Research Council, the Salt Manufacturers Association, and others This committee, now under the chairmanship of Dr O P Kimball of Cleveland, Ohio, has restudied the evidence as to cause, preventability, and practical measures for prevention which will not demand sustained educational promotion or depend solely on the whim, the assumed self-interest, or the sustained attention of purveyor or purchaser of table salt The committee has agreed that the ideal would be the universal availability of iodized table salt and the disappearance of table salt lacking this essential and trace supplement, except so far as certain religious rituals might require a sodium chloride without iodine added

The difficulties to be overcome are chiefly technical administrative definitions and certain trade practices and customs

All the table salt used by the armed forces in World War II was iodized salt as advised by the National Research Council

Before resorting, if this should prove necessary, to an official definition of table salt which would secure to all purchasers and users the benefits of the small addition of an iodide which would effectively prevent endemic goiter, an understanding has been reached with the manufacturers of table salt to use the channels of trade advertising to promote the exclusive use of iodized salt for table and family purposes

An excellent basic document has recently been published by the United States Public Health Service with the cooperation of the Committee on Endemic Goiter of the A P H A under the authorship of Dr Tom H Sebrell of the National Institutes of Health, which gives in authoritative form the facts and principles of prevention which will be used for educational purposes No better brief statement has been made available under any auspices, and the matter is worthy of sustained interest and active promotion by the medical profession

The minor and major, overt and hidden, temporary and continuing effects on the human body and mind of insufficiency of iodine in the diet can be avoided at no public expense, and at no added cost to the person and family in the United States, if the supply and demand for iodized table salt becomes effective throughout the country to the exclusion of the use of the deficient iodine-free table salt too commonly used at present in house, hospital, hotel, and restaurant dietary practice!

Increases in Our Aged Population A great deal of attention is currently being focused on meeting the educational, health, and other needs of the large crop of war and postwar babies—and rightfully so—but this must not obscure the growing needs of our aged population The resurgence of the birth rate has swelled the ranks of our children, but this must not divert attention from the fact that the number of old people in the population has likewise been increasing rapidly in recent years

> In 1940 there were about 9,000,000 people in the United States at ages sixty-five and over, by 1948 the number had jumped to nearly 11,000,000 Thus, in the short span of eight years our aged population grew by nearly 2,000,000, or by 21 per cent, as compared with an increase of 11 per cent in the population as a whole The proportion of the aged in this period rose from 6 8 to 7 5 per cent of the total population.
>
> The rate of increase since 1940 for people sixty-five and over has varied considerably from state to state and from one region to another In general, however, the New England, the southern, and the midwestern states showed the smallest proportionate rise, while the Middle Atlantic and the western states experienced the largest increase. Maine and Vermont, which have long had a relatively high ratio of old people, recorded smaller increases than any other state—4.2 and 7 8 per cent, respectively At the other extreme are Florida, California, Nevada, and Arizona, with additions to their aged population ranging from 37 to 52 per cent in the eight years under review [1]

That portion of the country which formerly was considered the youngest, in that it was settled latest, now is reaching apparently a staid maturity One associates the settling and early development of the lands of the middle and far West with tales and scenes of violent and, in many in-

[1] Stat. Bull. Met. Life Ins. Co Sept 1949 p 7

rocyte sedimentation rate to the status and activity allowances for rheumatic carditis cases

St Luke's Convalescent Hospital in Greenwich, Connecticut, has recently opened a new Nutritional Research Laboratory where basic studies in protein metabolism are now under way An effort will be made to study individual amino acids with regard to their relation to specific pathologic conditions After determining the various changes in amino acid utilization brought about by disease, it is hoped to be able to shorten the period of convalescence by supplying an excess of the specific amino acids, as indicated The effect of various hormones, particularly the steroid group, upon the basic nutritional deficiencies will also be investigated

It is possible that these researches, which it is anticipated will cover a fifteen-year period, may provide much needed short cuts to recovery This is a step in the right direction, in our view, since it opens possible channels for reducing length of stay in hospital, and may provide information whereby incapacitated workers may return more quickly to their jobs

We feel that the slowly changing mean age of our population makes it imperative to know all we can about the needs of those above fifty years of age Theoretically, it will become essential in the not too distant future to keep many more of the population productive past the age of fifty Any information which can be obtained with regard to the essential factors of nutrition in the older age group can be used to great advantage in maintaining a productive citizenry

Current Editorial Comment

Permanent Automatic Prevention of Endemic Goiter It is almost thirty years since the first systematic attempts were made in the United States to reduce and control the incidence of endemic goiter, benign nontoxic hyperthyroidism, among school children, first in Akron and Cleveland, Ohio, and later on a more extended scale in Detroit and smaller cities of Michigan and in some of the other states of the Great Lake's goiter belt and in the Northwest These efforts were strikingly successful largely under the leadership and the technical direction of Drs David Marine and O P Kimball of Cleveland and with the widespread support of physicians in private practice and in public health positions

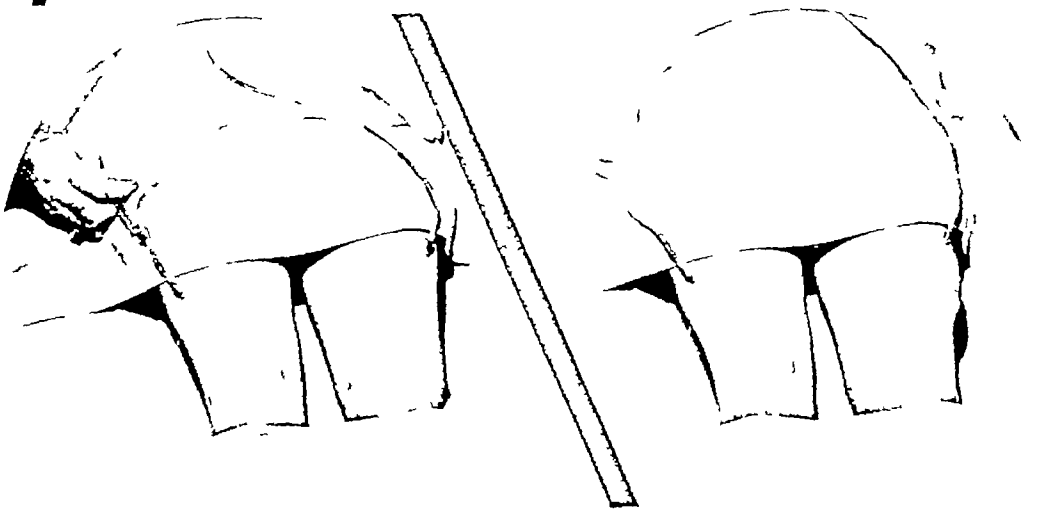
A solution of iodide of soda was provided for use medicinally during a week or ten days twice a year to all children attending the public and parochial schools in Cleveland In the campaign in Detroit and other Michigan communities table salt containing a small amount of iodide was provided by the salt manufacturers, with no increase in cost to the retail purchaser It was common to find over a period of five to ten years a reduction in incidence of appreciable hyperthyroidism among the children of families who made a practice of using iodized salt, from nearly 30 per cent to less than 5 per cent

The medical profession became convinced that this use of iodized salt had no unfavorable toxic, irritative, metabolic, or dermatologic results Toxic hyperthyroidism also showed substantial reduction among communities availing themselves generally of the dietary preventive resource of iodized salt

Experience of the trade showed that substantial amounts of iodide were lost in processes of packaging, transporting, storing, exposure to varying warm temperatures, and from other factors This was corrected by the use of "stabilizers" to hold the iodide in the salt container and by improving the carton package

The general picture was favorable and a slow but encouraging extension occurred in the percentage of iodized table salt sold at retail, but rechecking of the goiter incidence by the committee of pediatrists and their surgical and internist associates in Michigan revealed a gradual increase of goiter among school children and a lack of established purchasing habits among parents of buying only iodized table salt As the wave of educational and professional interest waned, public indifference followed, and teachers, parents, and physicians

Speed...Comfort...Safety...



Start of hypodermoclysis
Alidase injected in right leg
No Alidase used in left leg

Completion of hypodermoclysis. Right leg: comfort, safety, rapid absorption
Left leg: swelling, pain, slow absorption

ALIDASE* Searle (highly purified hyaluronidase) injected through the hypodermoclysis tubing makes it possible to administer subcutaneous fluids with the speed, comfort and safety of the intravenous route

Clinical studies have demonstrated that Alidase markedly increases the rate of absorption of saline, plasma, glucose, Hartmann's or Ringer's solution The absorption of penicillin, streptomycin, procaine and adrenalin is also facilitated

The swelling, induration and discomfort which ordinarily accompany hypodermoclysis are negligible when Alidase is employed

USUAL DOSE: One ampul per 500 to 1,000 cc. of hypodermoclysis fluid

ADMINISTRATION It may be (a) injected through the wall of the rubber tube near the hypodermoclysis needle or (b) dissolved directly in the solution (when the amount of fluid to be injected is small)

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2. Sannella L. S Yale J Biol & Med. *12* 433 (March) 1940.
3 Seifter J and Christian J J.: Presented at The New York Academy of Science in the Section of Biology (Dec. 4) 1948.
4 Schwartzman J Henderson A. T and King, W E.: J Pediat. 33:267 (Sept.) 1948
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ALIDASE* BRAND OF HYALURONIDASE

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RESEARCH IN THE SERVICE OF MEDICINE

*Trademark of G D Searle & Co. Chicago 80 Illinois

stances, early death It is hard to envision that area as now populated by the aged descendants of those violent and hardy pioneers

Of special interest are the population changes which have been taking place on the West Coast The old age population in the three Pacific Coast states as a group increased 36 5 per cent, outranking by a considerable margin all the other regions in this respect, for California alone the rise was as much as 41 4 per cent Despite the very sizable additions of old people to the Pacific states, the proportion of the aged in relation to the total population actually decreased from 8 1 to 7 7 per cent between 1940 and 1948 This paradox is explained by the phenomenal influx into this area of young adults and their children

Every state, without exception, has added a considerable number of people sixty-five and over to its population since 1940 In some areas the increase has been remarkably large New York State, for example, has added nearly a quarter of a million older people in this short period, California more than 230,000, Pennsylvania and Illinois about 130,000 each, and Ohio a little more than 100,000 The magnitude of the problem is, of course, better gauged by the total number of aged in the various states Thirteen states each have more than a quarter of a million old people, and of these five have more than one half million, in New York State the aged number about 1,200,000

Even before the war the medical, recreational, housing, and other facilities needed by the aged were grossly inadequate With the marked increase in the old age population, the situation has become more critical And, as has been pointed out in the *Bulletin* so often, the older people will continue to increase both in absolute numbers and as a proportion of the total population It would be the better part of wisdom to make provision for their growing needs Fortunately, official and voluntary agencies in many communities throughout the country are already studying the problem seriously and taking steps towards its solution.

Silver threads among the gold create a costly and vexing problem in custodial and other care for Father William who, when young, if memory serves us, says he—

Took to the law
And argued each case with my wife
And the muscular strength which it
gave to my jaw
Has lasted the rest of my life

OFFICE MANAGEMENT OF VENEREAL DISEASES

"The time has now arrived when the diagnosis and treatment of venereal diseases should properly revert to the office of the private physician" are the words prominently displayed on the cover of a valuable and useful booklet recently issued by the Bureau of Social Hygiene of the New York City Department of Health, in cooperation with the New York State Department of Health and the United States Public Health Service This booklet outlines for the physician the management of venereal disease patients and is up-to-date on the new methods of treatment, including penicillin and other antibiotic agents, although the final word on these remedies cannot be written at this time

The publication is well worthy of the attention of the practitioner and may be obtained from the Department of Health, 125 Worth Street, New York 13, New York.

Scientific Articles

Symposium

METHODS OF TUBERCULOSIS CASE-FINDING IN THE COMMUNITY

MASS CHEST X-RAY SURVEY

A Summary of Follow-Up Findings in 200,000 Patients Examined in Erie County, New York

MILLER H SCHUCK, M D , and WENDELL R AMES, M D , Buffalo, New York

(*From the Buffalo and Erie County Tuberculosis and Health Association and the Erie County Health Department*)

THE mortality from tuberculosis has been higher in Buffalo and Erie County than in any other portion of upstate New York There had been a decrease, it is true, during the period from 1900 to 1948, but the rate for Buffalo in 1948 was 44 per 100,000 in contrast to 35 5 for New York State as a whole

The Buffalo and Erie County Tuberculosis Association was fully cognizant of the special local problem and, after consultation with the Department of Health, decided to purchase and staff a mobile photoroentgen unit which could be utilized in all parts of the city and county The unit was to be used for a full-time, continuous survey instead of an intensive spot survey over a short period of time Our purpose is to present, in brief, the organization of the survey program and a summary of the findings from the 200,000 survey films which were taken during the period from March 4, 1946, through January 19, 1949

The estimated population of Buffalo is 611,932 and that of the entire county, including Buffalo, is 876,710 This is a highly industrialized area, and there is a thorough mixture of nationalities and races There are approximately 30,000 Negroes in Erie County as a whole, and about 40 per cent of the population is of Polish and Italian descent There are smaller groups of German, Irish, and Slavic nationalities During the war years there was a very considerable migration of Negroes from the Southern agricultural areas, and many diagnosed patients either did not attempt treatment or left sanatoria against advice However, all of these factors were known to exist in other areas with a lower mortality rate from tuberculosis, and it was presumed that the high rate locally might be from the combination of undiagnosed cases and from lack of isolation of known patients It was thought that a mass survey program would help to eliminate the former factor

During early 1946, a 70-mm photoroentgen unit was delivered, this being of the tractor-trailer type with a self-contained power generator Personnel on the trailer included two technicians and a secretary A full-time director was employed for the highly important task of supervising operation of the unit, interviewing employers and civic groups, and arranging schedules One physician was made responsible for the reading of all films, conducting the two check-up clinics, and forwarding reports of findings to patients and physicians A full-time secretary and statistician with special training in other survey programs has been responsible for the transfer of information to the index cards and compilation of findings

The minimum age was set at fifteen years, but a considerable number of younger persons have been examined, usually because they had family contact Some younger individuals were also included in the high school surveys, since the junior and senior classes were checked, regardless of age

All of the survey films demonstrating either

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Public Health, Hygiene and Sanitation May 4 1949

The common cold aborted with . . .

Pyribenzamine

—report 3 independent investigators

The theory that an allergic reaction is the trigger mechanism in the common cold is gaining wide acceptance Three reports have been published by independent investigators on their use of Pyribenzamine to abort the common cold All stress that treatment begun within a few hours after onset of symptoms produces the greatest benefits

★

Results of Treatment of Common Cold with Pyribenzamine

Persons treated	Number	Benefited	%
Students[1]	252	224	89
Factory Workers[2]	494	397	80
Naval Personnel[3]	466*	348	75

**Includes patients treated with other antihistaminics*

1 Gordon, John S : Laryngoscope, 58 1265 (Dec.) 1948.
2. Murray H C. Indust Med. 18 215 (May) 1949
3 Brewster John M U S. Nav M Bull 49 1 (Jan. Feb) 1949

Pyribenzamine Expectorant—Each teaspoonful contains 30 mg Pyribenzamine citrate, 10 mg of ephedrine sulfate and 80 mg of ammonium chloride

Dosage—Adults 1 or 2 teaspoonfuls every 3 to 4 hours followed by a small glass of water

Children ½ to 1 teaspoonful every 3 to 4 hours

Pyribenzamine Nebulizer—Distributes mist of minute droplets of Pyribenzamine hydrochloride Nasal Solution 0 5% throughout nasal passages. *Provides effective* relief of allergic nasal symptoms with no side reactions

Dosage—1 application to each nostril every 3 to 4 hours.

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY

PYRIBENZAMINE (brand of tripelennamine T M Reg U S. Pat. Off z/1507M

per cent were in the group fifty-five through sixty-four years, and only 2 per cent of the total were over sixty-five years of age

In Table 2 the attendance has been shown according to race as well as age and sex The preponderance of young adults in the age group fifteen through thirty-four years was noted again, in fact, the percentage of attendance in the various age groups was essentially the same for the white and nonwhite groups

Findings on Miniature Film

A total of 337 people (1 7 per 1,000) were classified as "definite tuberculosis," admittedly a low figure, but it was our purpose to be conservative in presumptive as well as final diagnoses There was a strikingly uniform progress on in the rate per 1,000 in each older age group, this being true of both white and nonwhite groups In the age group zero to fourteen the rate per 1,000 was only 0 129 for whites, but in the twenty-five to thirty-four group it had jumped to 1 44, and in the age group sixty-five and over it was 6 72 (Table 3)

The major portion of films showing abnormal findings were classified as "suspicious tuberculosis," and these totaled 2,075 or 10 5 per 1,000 Here again, the number of films so classified showed a progressive increase with each of the older age groups In the fifteen to twenty-four age group, 4 56 per 1,000 were classified under this heading, but the number had increased to 41 1 per 1,000 in the age group of sixty-five and over There was no gross difference in the white and nonwhite groups

In the white group a breakdown of the "definite" and "suspicious tuberculosis" cases according to sex showed that there were approximately equal numbers of males and females in the age group from fifteen through thirty-four years, but in the succeeding age groups there was a preponderance of males In the nonwhite group, this difference between the sexes was not apparent, possibly due to the small number examined

In summary, 12.2 per 1,000 were classified as either "definite" or "suspicious" tuberculosis on the basis of findings in the small films, 277, or 1 4 per 1,000, were thought to have cardiac abnormalities and 779 (4 per 1,000) were found to have nontuberculous pulmonary changes

Results of Follow-Up Examinations

In Table 4 we have shown the final diagnoses after additional study and re-examination with conventional 14- by 17-inch films In the group of 337 originally classified as "definite tuberculosis" there were only 209 who were retained in that category, while 88 were classified as "apparently cured" and seven were continued as

TABLE 3.—PERSONS X-RAYED ON MOBILE UNITS AND FINDINGS ON MINIATURE FILM BY AGE GROUPS SEX AND RACE

Age Groups	Number X-rayed		Definite Tuberculosis		Rate per 1,000 X-rayed	Suspicious Tuberculosis		Rate per 1,000 X-rayed	Nontuberculous		Cardiac		Unsatisfactory		Negative	
	Male	Female	Male	Female		Male	Female		Male	Female	Male	Female	Male	Female	Male	Female
White																
0–14	3 011	4 140		1	0 120	3	8	1 42	5	3	2	2	1	1	3 000	4 134
15–24	30 098	34 400	12	34	0 046	167	159	4 56	56	38	17	19	13	18	34 733	34 132
25–34	21 034	19 820	30	30	1 44	198	196	9 44	50	40	5	17	9	4	21 033	19 542
35–44	15 096	15 310	38	34	2 32	217	191	13 15	70	42	10	30	7	5	15 348	15 014
45–54	11 134	9 525	42	21	3 05	235	146	23 2	106	58	19	31	8	9	10 724	9 260
55–64	6 317	4 503	34	20	4 94	202	94	27 1	125	38	20	26	4	3	5 032	4 412
65 over	2 370	1 951	18	7	6 72	113	40	41 1	57	24	15	15	7	1	2 160	1 294
No age	204	258													204	258
Total	98 354	89 421	174	147	1 71	1135	834	10 6	484	243	88	140	49	41	90 424	88 016
Nonwhite																
0–14	203	205				1	1	4 90							202	204
15–24	1 374	1 020		1	0 334	7	13	6 70	2	1	2	3			1 303	1 002
25–34	1 227	1 424	3	2	1 88	0	10	6 04	2	4	2	3			1 214	1,405
35–44	862	940	2	1	1 05	8	15	12 7	10	5	1	6	1		840	922
45–54	621	554	6		5 10	14	14	23 8	15	4	7	6		1	579	529
55–64	225	163				0	1	18 0	3	1	5	10			211	151
65 or over	82	67	1		6 71	5	5	67 1	4	1	2	2	1	1	69	56
No age	13	11													13	11
Total	4 007	4 008	12	4	1 67	47	59	11 0	30	18	19	30	2	2	4 491	4 882
Grand total	102 961	94 414	186	151	1 70	1182	893	10 6	520	259	107	170	61	43	100 015	92 898

TABLE 1 —DISTRIBUTION OF PERSONS X RAYED ACCORDING TO AGE AND SEX (March 4 1946 to January 19 1949)

Age Groups	Male	Female	Number X rayed	Percentage in Each Age Group
0–14	3 814	4 354	8 168	4 1
15–24	38 372	36 020	74 392	37 7
25–34	23 161	21 253	44 414	22 5
35–44	16 558	16 265	32 823	16 6
45–54	11 755	10 079	21 834	11 1
55–64	6 542	4 756	11 298	5 7
65 and over	2 452	1 418	3 870	2 0
No age	307	269	576	0 3
Total	102 961	94 414	197 375	100 0

questionable or definitely abnormal findings were cut from the roll by the interpreter and a form letter sent to the individual concerned requesting that he return for a large check-up film When he reported, a detailed history was obtained, physical examination of the chest was carried out, and the necessary 14- by 17-inch films were taken When indicated, tuberculin tests were done, fluoroscopic check-up was made, and directions were given regarding the collection of adequate sputum samples A brief report was then forwarded to the patient and a more detailed report to the family physician In some cases, of course, it was necessary to make repeated examinations for accurate evaluation, but every effort was made to get the patient back and the first report to the doctor in a period of not more than ten days It was thought that a longer delay created poorer cooperation on the part of the patients and caused them to underestimate the importance of the findings

Patients who did not respond to the first request to return received a second letter, and, in case there was still no response, the survey film as then turned over to the Health Department and a nurse made a personal visit to encourage cooperation Patients who appeared to have cardiac pathology were notified through the Visiting Nurses Association and advised to see their family physician Some patients were requested to return to our own check-up clinic when the underlying condition was not obvious and there was a differential diagnosis such as that involving aortic aneurysm and mediastinal mass

Distribution According to Age, Race, and Sex

Although 200,000 films were taken, 2,625 were excluded since they were unsatisfactory or were taken on patients outside the county and were not rechecked here, leaving 197,375 films to be included in this study

In Table 1 we have shown the attendance according to age and sex Somewhat to our surprise, there was practically equal representation of the sexes in all age groups There was, on the other hand, much better attendance in the younger age groups Sixty and two-tenths per cent of all the people examined were in the age group fifteen through thirty-four, while only 5 7

TABLE 2 —DISTRIBUTION OF PERSONS X RAYED ACCORDING TO AGE SEX AND RACE (March 4 1946 to January 19 1949)

Age Groups	Male	Female	Number X rayed	Percentage in Each Age Group
White				
0–14	3 611	4 149	7 760	4 1
15–24	36 998	34 400	71 398	38 0
25–34	21 934	19 829	41 763	22 2
35–44	15 696	15 316	31 012	16 6
45–54	11 134	9 525	20 659	11 0
55–64	6 317	4 593	10 910	5 8
65 over	2 370	1 351	3 721	2 0
No age	294	258	552	0 3
Total	98 354	89 421	187 775	100 0
Nonwhite				
0–14	203	205	408	4 2
15–24	1 374	1 620	2 994	31 2
25–34	1 227	1 424	2 651	27 6
35–44	862	949	1 811	18 9
45–54	621	554	1 175	12 2
55–64	225	163	388	4 0
65 over	82	67	149	1 6
No age	13	11	24	0 3
Total	4 607	4 993	9 600	100 0
Grand Total	102 961	94 414	197 375	

per cent were in the group fifty-five through sixty-four years, and only 2 per cent of the total were over sixty-five years of age.

In Table 2 the attendance has been shown according to race as well as age and sex. The preponderance of young adults in the age group fifteen through thirty-four years was noted again, in fact, the percentage of attendance in the various age groups was essentially the same for the white and nonwhite groups.

Findings on Miniature Film

A total of 337 people (1.7 per 1,000) were classified as "definite tuberculosis," admittedly a low figure, but it was our purpose to be conservative in presumptive as well as final diagnoses. There was a strikingly uniform progression in the rate per 1,000 in each older age group, this being true of both white and nonwhite groups. In the age group zero to fourteen the rate per 1,000 was only 0.129 for whites, but in the twenty-five to thirty-four group it had jumped to 1.44, and in the age group sixty-five and over it was 6.72 (Table 3).

The major portion of films showing abnormal findings were classified as "suspicious tuberculosis," and these totaled 2,075 or 10.5 per 1,000. Here again, the number of films so classified showed a progressive increase with each of the older age groups. In the fifteen to twenty-four age group, 4.56 per 1,000 were classified under this heading, but the number had increased to 41.1 per 1,000 in the age group of sixty-five and over. There was no gross difference in the white and nonwhite groups.

In the white group a breakdown of the "definite" and "suspicious tuberculosis" cases according to sex showed that there were approximately equal numbers of males and females in the age group from fifteen through thirty-four years, but in the succeeding age groups there was a preponderance of males. In the nonwhite group, this difference between the sexes was not apparent, possibly due to the small number examined.

In summary, 12.2 per 1,000 were classified as either "definite" or "suspicious" tuberculosis on the basis of findings in the small films, 277, or 1.4 per 1,000, were thought to have cardiac abnormalities and 779 (4 per 1,000) were found to have nontuberculous pulmonary changes.

Results of Follow-Up Examinations

In Table 4 we have shown the final diagnoses after additional study and re-examination with conventional 14- by 17-inch films. In the group of 337 originally classified as "definite tuberculosis" there were only 209 who were retained in that category, while 88 were classified as "apparently cured" and seven were continued as

TABLE 1.—PERSONS EXAMINED ON MINIATURE UNIT AND FINDINGS ON MINIATURE FILM BY AGE, COLOR AND RACE

Age Groups	Number Examined		Definite Tuberculosis		Rate per 1,000 Examined		Simple Tuberculosis—Suspicious		Rate per 1,000 Examined		Nontuberculous		Cardiac		Unsatisfactory		Negative	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
White																		
0–14	1,811	1,811	1	1	0.55	0.55	7	8	3.86	4.41	6	1	1	1	1	1	1,796	1,800
15–24	20,008	20,008	22	22	1.09	1.09	108	108	5.39	5.39	28	28	11	11	11	11	19,828	19,828
25–34	21,911	21,911	32	32	1.46	1.46	216	216	9.85	9.85	28	28	11	11	11	11	21,613	21,613
35–44	16,666	16,666	28	28	1.68	1.68	216	216	12.96	12.96	28	28	11	11	11	11	16,372	16,372
45–54	11,114	11,114	18	18	1.62	1.62	216	216	19.43	19.43	28	28	11	11	11	11	10,821	10,821
55–64	6,625	6,625	11	11	1.66	1.66	216	216	32.62	32.62	28	28	11	11	11	11	6,338	6,338
65 over	2,370	2,370	4	4	1.69	1.69	108	108	45.57	45.57	28	28	11	11	11	11	2,175	2,175
No age	204	204	1	1	4.90	4.90	7	8	34.31	39.22	1	1	1	1	1	1	192	192
Total	80,861	80,861	171	147	2.11	1.82	1,116	814	13.80	10.06	181	241	88	110	40	11	80,121	80,018
Nonwhite																		
0–14	205	205	—	—	—	—	1	1	4.88	4.88	—	—	—	—	—	—	204	204
15–24	1,774	1,774	2	2	1.13	1.13	8	8	4.51	4.51	2	2	1	1	1	1	1,761	1,761
25–34	1,427	1,427	2	2	1.40	1.40	8	8	5.61	5.61	2	2	1	1	1	1	1,414	1,414
35–44	803	803	1	1	1.24	1.24	8	8	9.96	9.96	2	2	1	1	1	1	790	790
45–54	321	321	1	1	3.11	3.11	8	8	24.92	24.92	2	2	1	1	1	1	309	309
55–64	226	226	1	1	4.42	4.42	8	8	35.40	35.40	2	2	1	1	1	1	213	213
65 over	62	62	—	—	—	—	2	2	32.26	32.26	2	2	1	1	1	1	55	55
No age	13	13	1	—	76.92	—	—	—	—	—	—	—	—	—	—	—	12	13
Total	4,907	4,907	12	7	2.44	1.42	44	43	8.96	8.76	14	14	6	6	6	6	4,761	4,807
Grand total	102,001	91,411	186	161	1.82	1.76	1,183	891	11.59	9.74	243	320	107	170	61	21	100,916	91,818

TABLE 4.—Results of Follow-up Examinations in Relation to Findings on Miniature Film

Findings on Miniature Film	Number X rayed	Findings on 14- by 17-inch Film—Pulmonary Tuberculosis (Clinically Significant) P1 Active	P1 Inactive	P2 Active	P2 Inactive	P3 Active	P3 Inactive	Apparently Cured	Suspected Tuberculosis	Other Pathology	Cardiac	Negative	Under Private Physician	Refused Further Examination	Examination Pending
Definite tuberculosis	337	53	67	50	28	11		88	7	19		3	2	7	
Suspected tuberculosis	2075	148	219	35	11	2	1	459	162	277	4	663	10	62	23
Nontuberculous	779	1	2		2			46	15	486	12	185	9	15	6
Cardiac	66*									8	49	9			
Unsatisfactory	94		1	1				4	1	7		80			
Total	3351	202	289	86	41	13	1	597	185	797†	65	940	21	84	30

* In addition 211 cardiacs found on the Mobile Unit Survey films were referred directly to the private physician.
† In this group 101 possible neoplasm cases were diagnosed. Of the 101 there are 21 cases in which definite diagnosis of neoplasm has already been made

"suspicious tuberculosis." In the group of 2,075 originally classified as "suspicious tuberculosis," only 416 were given a diagnosis of "definite tuberculosis," 459 were classified as "apparently cured," and 162 were continued as "suspicious tuberculosis." Five cases of definite tuberculosis were screened from other groups, and there were, therefore, 632 individuals (3.2 per 1,000) who were found to have clinically significant and reportable disease, and 597 (3 per 1,000) cases of apparently cured, nonreportable disease.

Four hundred ninety-one, or 78 per cent, of the patients were found to have minimal disease, 202 were classified as active, and 289 inactive. There were 127, or 20 per cent, moderately advanced cases, 86 active, and 41 inactive. Only 14, or 2 per cent, advanced cases were discovered, but 13 of these were active. The preponderance of minimal disease, 78 per cent of the total, is in striking contrast to the older figures for extent of disease at the time of admission for sanatorium care. Only 19 per cent of all persons examined fell into the age group of forty-five and over, but this group contained 41 per cent of the patients found to have reportable disease.

Careful checking with the central tuberculosis register revealed that only 61, or 10 per cent, of the reportable cases had been previously known. This finding was in direct contrast to the opinion of many people at the time the survey was instituted (Table 5).

Comment

The Mobile Unit Survey has been different from most other programs in that (1) careful follow-up of findings on miniature film was made by the same staff, (2) the survey was county-wide, but one hundred per cent coverage in individual areas was not attempted, (3) the survey has been continuous since it was first started during March, 1946. The yield of 3.2 clinically significant cases per 1,000 is much lower than the 13 per 1,000 reported by Christie from the survey made during 1948 in Washington, D. C., but the fact that 90 per cent were newly discovered patients and that 78 per cent of these were in the minimal stage made the screening process profitable.[1] If the group of 597 apparently cured, nonreportable cases are included, the total yield is 6.2 per 1,000. We feel that the yield may have been appreciably diminished by including a higher percentage of the age group fifteen to twenty-four, especially through surveying the junior and senior classes in the various high schools. We also realize that there has been duplication, since in several instances industrial groups were surveyed twice during the two-year program. A special study has been conducted at the University of Buffalo.

TABLE 5.—Clinically Significant Tuberculosis on Follow-Up Examinations According to Age and Sex

Age Groups	P1 Male	P1 Female	P2 Male	P2 Female	P3 Male	P3 Female	Total Male	Total Female
0–14		1						1
15–24	24	55	9	16		1	33	72
25–34	35	57	20	11	1		56	68
35–44	62	50	13	10	1	2	76	62
45–54	58	38	13	3	5	1	76	42
55–64	54	20	15	7	2		71	27
65 over	22	15	9	1	1		32	16
Total	255	236	79	48	10	4	344	288

School of Medicine which includes a chest x-ray for each student three times each school year, and this group also has been included in the total reported

The high yield of significant cases from the older age groups has been stressed by Medlar and Boyd, and the fact that 41 per cent of our reportable cases came from the age group forty-five and over coincides with this opinion [2,3]

Up-to-date figures are not available, but the 1940 census showed that 29 per cent of the population in Erie County was made up of people forty-five years of age or older Eighteen and eight-tenths per cent of this survey group were forty-five years of age or older, and, therefore, we appear to be neglecting the most important segment of the population

Summary

1 Survey films (197,375) during the period from March 4, 1946, through January 19, 1949, led to eventual diagnosis of 632 reportable cases of tuberculosis (3.2 per 1,000) and 597 cases of nonreportable, apparently cured disease, 78 per cent were minimal in extent, 28 per cent moderately advanced, and only 2 per cent advanced

2 Only 18 8 per cent of all those examined fell into the age group of forty-five and over, yet 41 per cent of the reportable cases were in this age group

3 From miniature films alone, 1 4 per 1,000 were thought to have cardiac abnormalities, and 4 per 1,000 were found to have nontuberculous pulmonary pathology

4 Only 61, or 10 per cent, of the reportable cases had been previously known to the Health Department

5 The incidence of reportable pulmonary tuberculosis was no higher in the nonwhite than in the white group

We are indebted to Mrs. Dorothea Voltermann statistician and secretary-technician, Buffalo and Erie County Tuberculosis Association for tabulation of findings and her wholehearted interest in this survey

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NIAGARA FALLS MASS CHEST X-RAY SURVEY

Community Organization

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THE first total population, chest x-ray survey using multiple mobile photoroentgen units in New York State was conducted in the City of Niagara Falls from October 18, 1948, to December 10, 1948 The object of the survey was to x-ray the chests of 80 per cent of the population age fifteen and over and, in so doing, to uncover cases of tuberculosis in their early stages

Early diagnosis of tuberculosis is still a problem in Niagara Falls, as indicated by the fact that 75 per cent of the cases reported during the first seven months of 1948 were either moderately or far advanced Thus, our existing case-finding facilities had been a failure when judged by their ability to find tuberculosis early These facilities consisted of a follow-up and examination of all known cases and contacts, maintenance of a case and contact register for the past ten years, two chest x-ray clinics per week, one for routine films and unreferred individuals on 70 mm film and the other one on standard 14- by 17-inch film for physicians' referrals and for follow-up of those showing indications of pathology on the small films In addition, both local hospitals routinely x-ray the chest of a patient on each admission However, this last detail of the program was not inaugurated until May, 1948 One local industry employing about 2,000 persons routinely x-rays all its employes once each year

* By invitation.

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Preliminary Planning

During the early part of 1948, plans for a chest x-ray survey were promoted by the Tuberculosis and Health Association of Niagara County and by the Niagara Falls Junior Chamber of Commerce This was to have been a limited survey using a single transportable unit for a period of one month However, before this plan could be put into execution, the State Department of

Health made known its intention to employ sufficient equipment and personnel for total population surveys within a very short time In view of the possibility of such a comprehensive survey, the plans for a limited survey were abandoned However, considerable interest had developed in mass surveys as a result of this abortive effort, and, when equipment and personnel were available, the State Department of Health offered them to the City Health Department for a total population survey

At a preliminary conference between representatives of the State Department of Health, the City Health Department, the Niagara Sanatorium, and the Tuberculosis and Health Association, a tentative plan was developed for the survey Under this plan, all medical and technical equipment, as well as adequate personnel for taking and reading of 70 mm films, were to be supplied by the State Department of Health Office space and equipment, communications, follow-up clinic facilities, and publicity and promotional expenses, as well as the stenographic and clerical personnel, were to be supplied locally Interpretation of follow-up films and reporting of findings were to be made by the superintendent of Niagara Sanatorium It was agreed that this tentative plan would be presented to various groups in the city whose cooperation would be necessary and that a survey should be conducted at this time only if real interest in the project was forthcoming Approval by the local medical profession was a specified prerequisite Also, since Niagara Falls is a heavily industrialized city with almost one third of the entire population employed in industry, it was felt that the unqualified approval of both management and organized labor was absolutely imperative

The tentative plan was presented to the Niagara Falls Academy of Medicine which voted unanimously for its endorsement A special meeting of the Industrial Health Committee of the Tuberculosis and Health Association was called Representatives from several of the major industries and from the three major unions in the city, the C I O, A.F of L, and U.M W, attended Since x-raying the workers on the job was part of the plan, considerable concern was evinced by industry as to how much interruption in production schedules might be involved and the monetary loss resulting from such interruption A detailed explanation of technics to be used and the speed with which the actual x-raying could be done served to reassure this group The labor leaders present were frankly skeptical as to the confidential nature of reporting, fearing that x-ray findings would be available to employers Representatives of the State and local health departments present guaranteed that reports would be available only to the individual and his own physician. With this assurance, the survey was endorsed by each of the three major unions

With the cooperation of industry and labor assured, the next step was to enlist the cooperation of the general public A general meeting was called at the City Hall with invitations extended to representatives of a wide variety of community organizations, service clubs, veterans' organizations, and religious and fraternal leaders. From the groups which attended this meeting, a general planning committee was selected for over-all supervision of the survey One of the city's leading industrial executives accepted the chairmanship of this committee and selected a small executive committee for detailed planning and administration.

Organization

The necessity for a full-time program director was recognized, but funds were not available for employing such a person Moreover, it was unlikely that anyone who had adequate knowledge and experience in both tuberculosis and survey methods would be available This problem was solved by requesting the Tuberculosis and Health Association to grant its executive secretary a ten weeks leave of absence from his regular duties so that he might serve as program director This request was granted

During the ensuing two weeks, conferences were held with representatives from the Divisions of Tuberculosis Control and Public Health Education of the State Department of Health, and the organizational plan necessary to meet our needs was developed Subcommittees were decided on as follows (1) Unit Location Planning, (2) Zone and Area Organizing, (3) Publicity and Public Information, (4) Professional Services, (5) Industrial, (6) Schools, and (7) Finance

The chairmen of these subcommittees were chosen by the executive committee The membership was developed by consultation between the general chairman and the individual subcommittee chairmen

Subcommittee Activities

Unit Location Committee—This committee functioned under the chairmanship of the city editor of the local newspaper Since a satisfactory source of power was necessary at each location, a representative from the local utilities company was a valuable member The committee first divided the city into nine working units, designated as zones This division was determined by a consideration of trading centers, natural barriers, main thoroughfares, and population density Each of these zones was then subdivided into smaller units, designated as

areas, each of which was to have a unit location Schools, firehalls, churches, and business establishments seemed most suitable for transportable units and street locations for the mobile bus units When the locations had been established, permission for the use of the premises obtained, and power sources checked, a tentative schedule for the eight weeks of the survey was set up

Zone and Area Organizing Committee—This committee began to function as soon as the city had been mapped into zones and areas and the unit locations had been established The chief objective of this committee was to see that every home in the city was visited by an informed neighborhood canvasser, who would explain the survey and invite families to take advantage of the opportunity when the unit came to their neighborhoods The committee was guided and assisted in this work by one full-time and one part-time health educator assigned to the project by the State Department of Health The committee selected leaders for each of the nine zones, and, in conference with these zone leaders, area leaders were selected Each area leader then recruited a corps of block workers, usually at least two for each block A schedule of orientation meetings for block workers was then arranged and coordinated with the unit location schedule so that the meeting preceded the arrival of the unit in the area by about one week These meetings, presided over by a health educator, served to acquaint the block workers thoroughly with the benefits to be derived from the survey so that they might better be able to overcome indifference or opposition encountered during their canvassing Publicity materials to be left at homes during the canvass were distributed, including a pamphlet containing questions most frequently asked and the proper answers to them

The canvasser's visit was reinforced by a flyer delivered to each home one or two days before the x-ray unit was to move in This flyer gave the exact location and hours of operation of the unit as well as alternate locations in adjacent areas Boy Scouts, Girl Scouts, and the Junior Red Cross delivered the flyers under the direction of the committee chairmen

This house-to-house canvass was probably the most effective single activity contributing to the ultimate success of the project In all, 500 block workers visited more than 22,000 homes

Publicity and Public Information—The chairman of this committee acted as director of publicity Since the funds available for this phase of the project were rather inadequate, as much use as possible was made of free and donated forms of publicity During the planning stages of the survey most of the publicity was in the form of newspaper accounts of the progress in various phases of the preparations To eliminate the possibility of a lack of interest resulting from a protracted campaign, intensive publicity was purposely withheld until about one week before the actual beginning of operations The director's plan was to avoid using all types of publicity at the beginning of the survey so that interest could be maintained throughout the entire eight weeks by the periodic introduction of publicity devices and promotions

The city editor of the *Niagara Falls Gazette* assigned one reporter for the duration to write up the survey developments All stories were cleared through the publicity director and checked by the health officer for scientific accuracy

The two local radio stations were supplied with a series of spot announcements, which were plugged daily throughout the survey, and special programs were given in Italian and Polish

Special publicity devices included posters, movie trailers, leaflets, inserts in department store monthly billings, painted sidewalk signs, sound trucks, and milk bottle collars At the midpoint of the survey a special four-page pictorial spread was featured in the rotogravure section of the Buffalo Sunday newspaper

Professional Service Committee—This committee, composed of members selected from the local medical and dental professions, checked all procedures and publicity materials to insure their acceptability from the standpoint of ethics and scientific accuracy This committee also prepared and sent out a letter to all physicians advising them of the routine to be followed and the manner of reporting to private physicians

Industrial Committee—This committee assumed full responsibility for x-raying in industry The city was divided into five industrial zones with a chairman for each, usually the personnel manager of one of the larger plants Two bus units were assigned to industry for its exclusive use Most Niagara Falls industry is electrochemical and electrometallurgical, operating continuous processes Thus, scheduling had to provide for day, night, and "swing" shifts Blank cards were supplied to each industry and made out in advance from their own payroll and personnel records With cards thus prepared in advance men could be x-rayed in small groups with a negligible loss of time

The industrial committee also handled publicity within the plants Notices were posted by both management and union officials

Schools Committee—This committee was active in arranging unit locations in the schools in directing the x-raying of students age fifteen and over as well as teachers, custodians, engineers, and lunch room personnel This committee conducted an intensive educational campaign designed chiefly to reach the parents through the

children. The importance of tuberculosis control and the value of the survey were stressed in the health and biology classes in the secondary schools In the elementary schools the teachers taught the children a few simple facts to take home to their parents along with leaflets and schedule flyers

Finance Committee—This committee was responsible for allocation of funds, approving all expenditures and limiting them to the budget A total of $6,000 was available, this amount appropriated by the City of Niagara Falls

Survey Center

Headquarters were necessary to house and coordinate the various activities of the survey other than the actual x-raying Fortunately, ample space was available in the City Chest Clinic, and this was converted and expanded to serve as a center of operations Included in this center were the administrative headquarters of the program director, the tuberculosis consultant, the supervising technician, the health educator, and the office manager Facilities were provided for interpretation of 70 mm film, for interviewing and history taking by the public health nurses, and for developing both 70 mm. and 14- by 17-inch film

Management of administrative details connected with the survey was the responsibility of the office manager The office manager served in this capacity in addition to her regular duties in the City Health Department Her responsibilities included equipping and arranging the survey center to accommodate the operating staff, the employment and supervision of stenographic and clerical personnel, the direction of processing of records and medical reports with the assistance of the records consultant, and the maintenance of an accounting system for local funds

Budget limitations did not permit the employment of all the clerical personnel needed After the needs of the survey center were met, only four clerks remained to serve with the seven units operating Soon it became evident that, since one unit operating at capacity required the services of three clerks, a considerable number of volunteer clerical workers would be required Volunteers were secured from a panel of such workers maintained by the local Red Cross and from the local secretarial association. Assignments were made daily by the health educator from this roster

Results and Comment

The only real gauge of the effectiveness of the organization of the community for such an effort as this is the results obtained. Since more than 75 per cent of the total eligible population of city was x-rayed, the community organizat might be deemed adequate However, analy of the 25 per cent not x-rayed, especially as to t age and sex groups into which they fall, will useful information for guidance in future surve

The most serious shortcoming in the comm nity organization for this survey was the lack experience in total population surveys by ever one concerned This was, to a great degre counterbalanced by the enthusiasm and effo demonstrated by the hundreds of lay worke involved We were fortunate in our selectio of a general chairman whose judgment in th choice of subordinates was excellent

As the survey progressed, certain deficiencie were made manifest The program director of such a project should be experienced not only in survey methods but also in medical, technical, organizational, and administrative aspects Such an individual will rarely be resident in the community surveyed It was felt in Niagara Falls that the program director should be supplied on the State level of either the official or voluntary agency

There was a certain amount of inertia in the earlier stages of planning, and the necessity for maintaining a strict time schedule was not fully realized This was particularly true in the organization of the house-to-house canvass With seven units operating, the survey moved through the city at a fairly rapid pace so that the area-organizing groups were sometimes hard pressed to keep ahead of the units The entire organization of each zone should have been completed at a considerably earlier date Had this been done, some of the last minute emergency organization could have been avoided

The budget for carrying out local responsibilities was inadequate, and this situation was further complicated by the lack of any fluid funds Since the only finances available were those supplied by the city, all expenditures had to go through the usual routine including competitive bids and council approval of major items This often caused serious delays in a schedule which was already rather crowded In another survey an effort might be made to secure fluid funds through contributions from voluntary agencies so that something more than minimum essentials might be available

The Niagara Falls survey not only contributed to the improvement in the local tuberculosis control program, but it also served as a suitable testing ground for initiating the State-wide program of total population surveys in major cities It is hoped that the experiences gained in this survey will be of value in the planning and execution of future similar efforts

NIAGARA FALLS MASS CHEST X-RAY SURVEY

Procedures and Results

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CHEST x-ray surveys of total populations of communities in relatively short periods of time are now recognized as an integral, necessary function of the case-finding aspect of any well-organized tuberculosis control program. Such surveys result in the finding of many unknown, mostly asymptomatic, early cases of tuberculosis which the routine examination of contacts and of persons with symptoms would not discover Mass surveys, therefore, have an importance equal to that of established clinics in the discovery of new cases

The longer tuberculous individuals remain undiscovered, the greater the number of secondary cases which may result from them, so that the shorter the period of time taken to find all the cases in the community, the fewer will be the secondary cases which will develop The need for completing mass community surveys as rapidly as possible, therefore, is obvious

This paper is a report of the appraisal of the problem and facilities, the objectives, the procedures employed, and the immediate results in the total population chest x-ray survey of the City of Niagara Falls, New York, conducted in the fall of 1948 The distinguishing features of this survey which warrant this presentation are as follows

1 This was the first total population survey of a city of over 50,000 population in New York State.

2 Tentative diagnoses of definite or suspected tuberculosis and an estimate of clinical status were made on the basis of the interpretations of the survey films

3 Persons whose survey films were considered to show definite or suspected tuberculosis were x-rayed on standard 14- by 17-inch films at the survey headquarters as soon as possible, usually within two weeks after the small film survey x-ray

4. Reports of negative films or notices to consult their physicians or appear for re-examination at the survey headquarters were received, by all those x-rayed, no later than two weeks after the initial x-ray

* By invitation.

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Appraisal of Problem and Facilities

The estimated population of Niagara Falls is 89,000 About 66,000 are fifteen years of age or over About three quarters are native-born, most of the foreign-born are Polish or Italian Aside from its prominence as a tourist center, the city is highly industrialized, about half of the working population being engaged in manufacturing plants, the most important of which are in the electrochemical, electrometallurgical, and the printing and publishing fields

With a tuberculosis death rate for 1947 of 22 4 per 100,000 population and an average for the three years 1945 through 1947 of 25 9, Niagara Falls was well below the average for cities of 25,000 population or over in the State Since 1926, when tuberculosis deaths began to be allocated by place of residence, there has been a 63 5 per cent decline in the death rate

Niagara Falls also benefits from the services of a health department in charge of a full-time health officer and facilities for follow-up and for hospitalization of tuberculosis patients in the 200-bed Niagara Sanatorium, a county tuberculosis hospital In view of these favorable circumstances, a total population chest x-ray survey seemed definitely desirable and necessary to supplement existing case-finding procedures At the same time it would afford an opportunity for that city to be the first of the class of cities of 50,000 population or over in New York State to carry such a project to a successful conclusion.

As a result of this appraisal of the local problem and review of facilities, the health officer organized a survey committee, presented the facts to it, and recommended that a total population survey be undertaken. It was determined that such a survey was feasible, plans and procedures for the survey were prepared and an application submitted to the State Health Department for x-ray survey service This application was approved, and the duration and dates for the survey scheduled In approving this application, there were made available to the Niagara Falls Health Department the following facilities in terms of equipment, supplies, personnel, and services

1 Seven photofluorographic machines, four

TABLE 1.—NUMBER AND PERCENTAGE OF RESIDENT POPULATION X-RAYED BY AGE AND SEX

Age	Both Sexes: Estimated 1948 Population	Both Sexes: Residents X rayed* Number	Both Sexes: Residents X rayed* Per Cent of Population	Male: Estimated 1948 Population	Male: Residents X rayed* Number	Male: Residents X rayed* Per Cent of Population	Female: Estimated 1948 Population	Female: Residents X rayed* Number	Female: Residents X rayed* Per Cent of Population
Total	66 402	46 095	69 4	33 607	24 949	74 2	32 795	21 146	64 5
15–24	13 598	11 525	84 8	6 946	5 943	85 6	6 652	5 582	83 9
25–44	28 744	21 758	75 7	14 132	11 860	83 9	14 612	9 898	67 7
45 and over	24 060	12 650	52 6	12 529	7 080	56 5	11 531	5 570	48 3
Not stated		162			66			96	

* Exclusive of 5 434 adult nonresidents and of 608 persons under fifteen years of age

mounted on buses and three transportable carried in special panel-body trucks

2 Films and chemicals

3 Necessary technical personnel for operating the equipment and processing the films

4 A records analyst, responsible for the machine processing and running tabulation of records, for the smooth flow of these records, and for distribution of reports

5 A supervising technician to assist with daily scheduling and location of x-ray machines, especially with regard to electrical power requirements

6 Two physicians for interpretation of films and to assist, advise, and provide consultation with regard to any aspect of the survey

7 One full-time and one part-time public health educator to provide consultation and advice and to assist with the community organization for the survey

8 All record, report, and tabulation forms

Objectives

The object of this survey was to x-ray as many of the estimated 66,000 adults (those fifteen years of age or older) in Niagara Falls as could be reached, the ideal being 100 per cent, of course Practically, in any large community survey, if 80 per cent of the adults can be reached for x-ray, it may be considered a successful, satisfactory survey Eighty per cent of the adult population of Niagara Falls is 52,800

It should be realized, of course, that the x-raying of these people and the discovery of new cases of tuberculosis among them are only the immediate objectives These, in turn, must lead to the eventual objectives, namely, the control through supervision or hospitalization of the newly discovered cases, as indicated by follow-up study, and thereby the interruption of the cycle of infection and development of new cases

Procedures

Eight weeks were allowed for the entire survey, with a goal of 55,000 x-rays to be taken in that period, a goal which fell short of being realized by a scant 3,000 The survey was conducted from October 18 through December 14, 1948

Every person x-rayed received (1) a report to that effect if his x-ray was negative, or (2) a letter to consult his physician if the x-ray indicated nontuberculous intrathoracic pathology, or (3) a letter to return to the survey headquarters for a second x-ray on 14- by 17-inch film, at which time a history was taken and arrangement made for sputum examination if the survey x-ray film showed definite or suspected tuberculosis It was realized that to retain the interest of the community and thus contribute to the success of the survey, the time between the taking of the x-ray and the notification of the individual of the result of the x-ray should be as short as possible. Actually, only rarely did it take longer than ten days for the person x-rayed to receive his report or notification The report card part of the record was mailed to each individual whose x-ray was negative Where the films showed evidence of intrathoracic pathology, the individuals concerned were notified by form letter

In order to utilize the public health nursing service to the best advantage and to provide proper supervision of tuberculosis cases as soon as possible, the physicians who interpreted films made provisional or tentative diagnoses of definite or suspected tuberculosis on the basis of the survey films In addition, they made an estimate of the clinical status of the disease on the same basis, that is, if a tentative diagnosis of tuberculosis was made, whether the disease was probably active or probably inactive Where the disease was estimated to be probably active, the extent of involvement or the stage of the disease was also noted as minimal, moderately advanced, or far advanced

Individuals whose films showed significant abnormalities were notified by letter, the contents of which differed according to whether the diagnosis was definite or suspected tuberculosis or some nontuberculous condition If a nontuberculous condition was diagnosed, the individual concerned was notified to visit his physician to whom the report containing the interpretation, diagnosis, and recommendations had been sent

If definite or suspected tuberculosis was diagnosed, the individual concerned was notified to report on a specified date to the survey head-

TABLE 2.—PREVALENCE OF TUBERCULOSIS BY AGE AND SEX

Age	Both Sexes					Male					Female				
	Number X-rayed*	Total Tuberculosis† Number	Total Tuberculosis† Per Cent	Probably Active Tuberculosis Number	Probably Active Tuberculosis Per Cent	Number X-rayed*	Total Tuberculosis† Number	Total Tuberculosis† Per Cent	Probably Active Tuberculosis Number	Probably Active Tuberculosis Per Cent	Number X-rayed*	Total Tuberculosis† Number	Total Tuberculosis† Per Cent	Probably Active Tuberculosis Number	Probably Active Tuberculosis Per Cent
Total	51 529	481	0 93	150	0 29	28 955	306	1 06	107	0 37	22 574	175	0 78	43	0 19
15-24	11 979	28	0 23	20	0 17	6 397	17	0 27	12	0 19	5 582	11	0 20	8	0 14
25-44	24 952	175	0 70	68	0 27	14 170	97	0 68	42	0 30	10 782	78	0 72	26	0 24
45 and over	14,417	277	1 92	61	0 42	8 311	191	2 30	52	0 63	6 106	86	1 41	9	0 15
Not stated	181	1	0 55	1	0 55	77	1	1 30	1	1 30	104	0		0	

* Excludes 608 persons under fifteen years of age, but includes 5 434 nonresidents.
† Includes probably active probably inactive and suspected tuberculosis

quarters where facilities were available for a confirming x-ray, with upper clothing removed, on 14- by 17-inch celluloid film At the same time, a short medical and social history was taken, the name checked for previous report as a case of tuberculosis, and a sputum specimen container given to the patient with instructions as to how to collect the specimen and where to deliver it The report which was sent to the patient's physician was the *interpretation of this first* follow-up 14- by 17-inch film and made possible in these cases a more detailed, accurate description and diagnosis For persons who did not return for their first 14- by 17-inch follow-up film, the survey film interpretation was still available as a guide in determining the need and urgency for subsequent public health nursing follow-up

Results

The total number of persons x-rayed was 52,137, of whom 51,529, or 99 per cent, were fifteen years of age or over At first glance this would appear to represent 78 per cent of the residents fifteen years of age or over in Niagara Falls Actually, however, it is estimated that only 46,095 of these were actual residents of the city, and the remainder, for the most part, were nonresident employes in the industries which were surveyed as part of the total survey Of the estimated 66,000 resident adults, 5,000 employed in industry had been x-rayed a short time prior to the beginning of this survey, and it was not thought necessary to insist on their being x-rayed again This left 61,000 resident adults eligible for x-ray of which the 46,095 x-rayed during the survey represent 75 4 per cent The tabulation of the x-rayed adult resident population according to age and sex is based on this figure and is shown in Table 1 and Fig 1

For both sexes, the highest percentage x-rayed was in the age group fifteen to twenty-four years (84 8 per cent) and the lowest in the age group forty-five years of age and over (52 6 per cent)

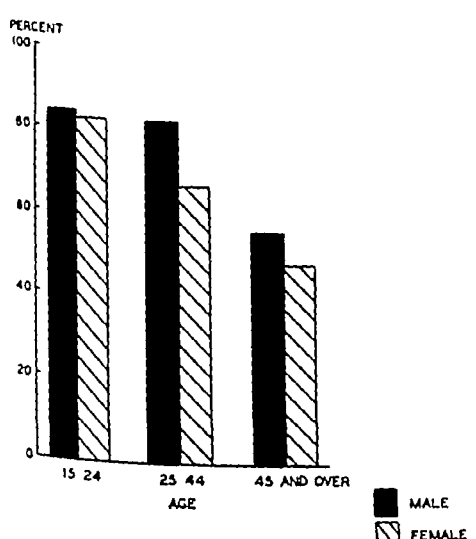


FIG 1 Percentage of estimated population x-rayed by age and sex

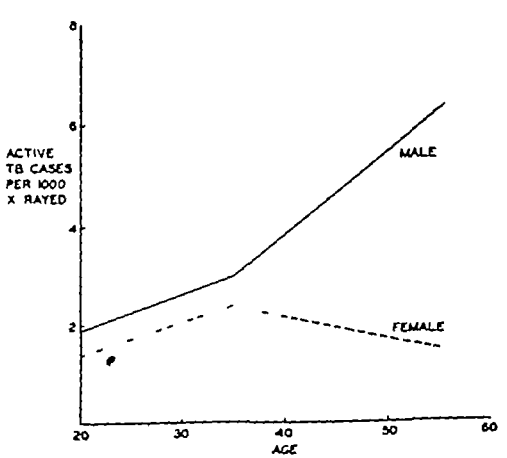


FIG 2 Prevalence of active tuberculosis by age and sex

TABLE 1 —NUMBER AND PERCENTAGE OF RESIDENT POPULATION X-RAYED BY AGE AND SEX

Age	Both Sexes: Estimated 1948 Population	Both Sexes: Residents X-rayed* Number	Both Sexes: Residents X-rayed* Per Cent of Population	Male: Estimated 1948 Population	Male: Residents X-rayed* Number	Male: Residents X-rayed* Per Cent of Population	Female: Estimated 1948 Population	Female: Residents X-rayed* Number	Female: Residents X-rayed* Per Cent of Population
Total	66 402	46 095	69 4	33 607	24 949	74 2	32 795	21 146	64 5
15–24	13 598	11 525	84 8	6 946	5 943	85 6	6 652	5 582	83 9
25–44	28 744	21 758	75 7	14 132	11 860	83 9	14 612	9 898	67 7
45 and over	24 060	12 650	52 6	12 529	7 080	56 5	11 531	5 570	48 3
Not stated		162			66			96	

* Exclusive of 5 434 adult nonresidents and of 608 persons under fifteen years of age

mounted on buses and three transportable carried in special panel-body trucks

2 Films and chemicals

3 Necessary technical personnel for operating the equipment and processing the films

4 A records analyst, responsible for the machine processing and running tabulation of records, for the smooth flow of these records, and for distribution of reports

5 A supervising technician to assist with daily scheduling and location of x-ray machines, especially with regard to electrical power requirements

6 Two physicians for interpretation of films and to assist, advise, and provide consultation with regard to any aspect of the survey

7 One full-time and one part-time public health educator to provide consultation and advice and to assist with the community organization for the survey

8 All record, report, and tabulation forms

Objectives

The object of this survey was to x-ray as many of the estimated 66,000 adults (those fifteen years of age or older) in Niagara Falls as could be reached, the ideal being 100 per cent, of course Practically, in any large community survey, if 80 per cent of the adults can be reached for x-ray, it may be considered a successful, satisfactory survey Eighty per cent of the adult population of Niagara Falls is 52,800

It should be realized, of course, that the x-raying of these people and the discovery of new cases of tuberculosis among them are only the immediate objectives These, in turn, must lead to the eventual objectives, namely, the control through supervision or hospitalization of the newly discovered cases, as indicated by follow-up study, and thereby the interruption of the cycle of infection and development of new cases

Procedures

Eight weeks were allowed for the entire survey, with a goal of 55,000 x-rays to be taken in that period, a goal which fell short of being realized by a scant 3,000 The survey was conducted from October 18 through December 14, 1948

Every person x-rayed received (1) a report to that effect if his x-ray was negative, or (2) a letter to consult his physician if the x-ray indicated nontuberculous intrathoracic pathology, or (3) a letter to return to the survey headquarters for a second x-ray on 14- by 17-inch film, at which time a history was taken and arrangement made for sputum examination if the survey x-ray film showed definite or suspected tuberculosis It was realized that to retain the interest of the community and thus contribute to the success of the survey, the time between the taking of the x-ray and the notification of the individual of the result of the x-ray should be as short as possible Actually, only rarely did it take longer than ten days for the person x-rayed to receive his report or notification The report card part of the record was mailed to each individual whose x-ray was negative Where the films showed evidence of intrathoracic pathology, the individuals concerned were notified by form letter

In order to utilize the public health nursing service to the best advantage and to provide proper supervision of tuberculosis cases as soon as possible, the physicians who interpreted films made provisional or tentative diagnoses of definite or suspected tuberculosis on the basis of the survey films In addition, they made an estimate of the clinical status of the disease on the same basis, that is, if a tentative diagnosis of tuberculosis was made, whether the disease was probably active or probably inactive Where the disease was estimated to be probably active, the extent of involvement or the stage of the disease was also noted as minimal, moderately advanced, or far advanced

Individuals whose films showed significant abnormalities were notified by letter, the contents of which differed according to whether the diagnosis was definite or suspected tuberculosis or some nontuberculous condition If a nontuberculous condition was diagnosed, the individual concerned was notified to visit his physician to whom the report containing the interpretation, diagnosis, and recommendations had been sent

If definite or suspected tuberculosis was diagnosed, the individual concerned was notified to report on a specified date to the survey head-

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Age	Both Sexes					Male					Female				
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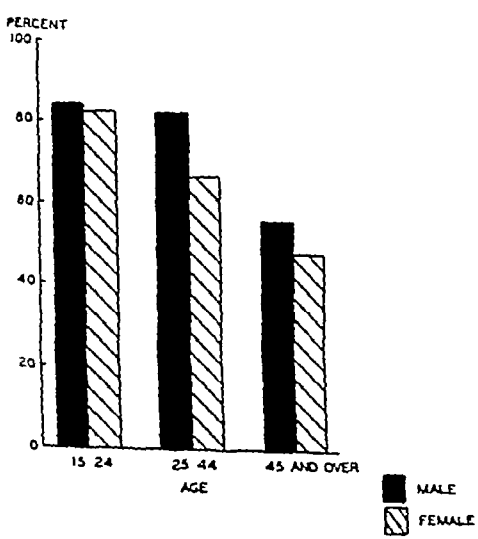


FIG 1 Percentage of estimated population x-rayed by age and sex

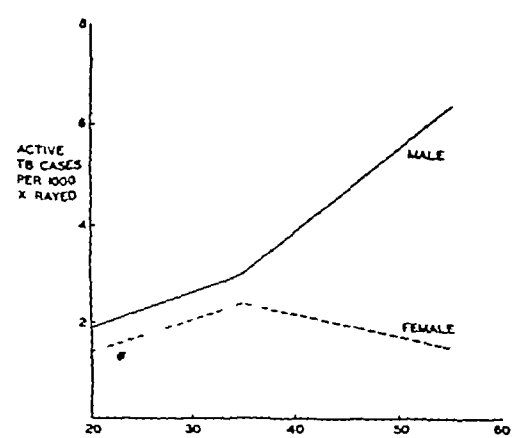


FIG 2 Prevalence of active tuberculosis by age and sex

TABLE 3.—DISTRIBUTION OF CASES CLASSIFIED PROBABLY ACTIVE TUBERCULOSIS BY SEX AND STAGE OF DISEASE

Sex	Total Cases Probably Active Tuberculosis		Minimal		Moderately Advanced		Far Advanced	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Both sexes	150	100 0	119	79 3	28	18 7	3	2 0
Male	107	100 0	85	79 4	19	17 8	3	2 8
Female	43	100 0	34	79 1	9	20 9	0	

In terms of numbers, however, the best participation was obtained in the age group twenty-five to forty-four, in which about 21,000 out of 28,000 eligibles were x-rayed For all age groups the percentage of males x-rayed was higher than for females This was particularly marked in the group twenty-five to forty-four, in which about 84 per cent of the males were examined as against 68 per cent of the females This excess of males over females may be due to the fact that industry in Niagara Falls employs a large percentage of the male population where it is more easily reached by survey methods

The prevalence of tuberculosis based on survey film interpretations is shown in Table 2 and Fig 2 Among all the adults x-rayed, 481, or 0 9 per cent, showed x-ray evidence of tuberculosis Of these, 150, or 0 29 per cent of the total x-rayed, were classified as "probably active pulmonary tuberculosis" For all ages combined, the prevalence of probably active pulmonary tuberculosis was two times higher among males than among females—0 37 per cent as against 0 19 per cent In those over forty-five years of age, the rate among males (0 63 per cent) is almost four times that of the females (0 15 per cent) and serves to emphasize once more the seriousness of the problem among older males and the need for ever-increasing efforts to reach this group

The distribution of the probably active cases of tuberculosis by stage of disease is shown in Table 3 Of the 150 so classified, 12 showed pleural effusion and are provisionally classified as "minimal tuberculosis" By stage of disease, 79 per cent were minimal, 19 per cent moderately advanced, and 2 per cent far advanced There appear to be no significant sex differences Only 12, or 8 per cent, of the 150 cases designated as probably active tuberculosis had been previously reported and thus known to the health department

While chest x-ray surveys are organized and conducted for the primary purpose of finding hidden cases of tuberculosis, the importance of the nontuberculous, intrathoracic conditions discovered through this means cannot be minimized In this era of increasing public health significance of heart disease and cancer control, to mention just two problems, the finding of conditions other than tuberculosis assumes steadily greater importance to the community as well as to the individuals concerned

Table 4 shows the distribution of nontuberculous, intrathoracic conditions by sex A total of 630 persons, or 1 2 per cent of the total x-rayed, showed x-ray shadows suggestive of nontuberculous pathology, of whom 389, or 0 8 per cent, showed evidence of heart disease and 169, or 0 3 per cent, pulmonary fibrosis There were also 17 whose x-rays showed shadows which were thought to be due to intrathoracic tumor

A tabulation of probably active tuberculosis found in industrial workers and in the rest of the community is shown in Table 5 and Fig 3

Of the total of 28,955 adult males x-rayed, about one half were employed in industry A study of Fig 3 indicates that the prevalence of active tuberculosis below the age of forty-five is higher among male industrial workers than among males in the rest of the community Above the age of forty-five no significant differences are noted between these groups

Of the total of 22,574 females x-rayed, 3,318, or about 15 per cent, were employed in industry When the prevalence of probably active tuberculosis among female industrial workers is compared with the females in the rest of the community, it appears that only below the age of twenty-five is there any clear indication that active tuber-

TABLE 4.—PREVALENCE OF NONTUBERCULOUS INTRATHORACIC PATHOLOGY BY SEX

Sex	Number X rayed	Total Nontuberculous Findings		Cardiovascular Disease		Neoplasm		Pulmonary Fibrosis		Non-specific Infection		Miscellaneous	
		Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Both Sexes	51 529	630	1 22	389	0 75	17	0 03	169	0 33	25	0 05	30	0 06
Male	28,955	407	1 41	194	0 67	10	0 03	168	0 58	16	0 06	19	0 07
Female	22 574	223	0 99	195	0 86	7	0 03	1		9	0 04	11	0 05

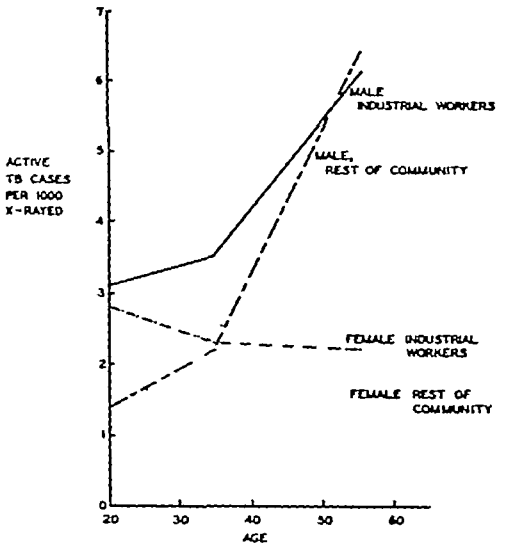


FIG 3 Prevalence of active tuberculosis by age, sex, and occupational group

culosis may be more prevalent among females in industry

The findings noted above suggest that male industrial workers in the younger adult ages are subject to a risk from tuberculosis which is greater than that observed among males not employed in industries Female workers below the age of twenty-five employed in industry appear to have a higher prevalence of tuberculosis than is found among nonindustrial female workers At all other ages there appears to be no difference in tuberculosis prevalence between females in industry and those not so employed

Whereas tuberculosis is significantly more prevalent in industry, such is not the case for nontuberculous intrathoracic conditions (Table 6) No significant differences in the rates for nontuberculous conditions were found in industry as compared to the rest of the community, with the exception of heart disease. In this condition, the rate is higher in the community than in industry A reasonable explanation for this might be that, unlike tuberculosis, most individuals with heart disease have symptoms that soon necessitate their severance from employment, especially in manufacturing industries

Results of Initial Follow-Up with Large Films

As shown in Table 7, of 481 individuals whose survey films showed evidence of definite or suspected tuberculosis, 332 had also been x-rayed on 14- by 17-inch films by the time the survey was finished Of the 320 with survey film diagnoses of definite tuberculosis, the large films showed agreement in 294, or 92 per cent The large film diagnosis agreed with the survey film diagnosis in 86 per cent of those whose survey film diagnosis was probably active tuberculosis and in 95 per cent of those whose survey film diagnosis was probably inactive tuberculosis Only 19 of the 332 x-rayed for a second time were negative on the large films The greatest percentage of disagreement occurred among those whose survey film diagnosis was probably active minimal tuberculosis

It cannot be emphasized too strongly that nei-

TABLE 5 —PREVALENCE OF ACTIVE TUBERCULOSIS BY AGE, SEX AND OCCUPATIONAL GROUP

Age	Male: Total X rayed	Male: Probably Active Tuberculosis Number	Male: Probably Active Tuberculosis Per Cent	Female: Total X rayed	Female: Probably Active Tuberculosis Number	Female: Probably Active Tuberculosis Per Cent
			Industrial Workers			
Total	14,157	61	0 43	3 318	8	0 24
15–24	1 956	6	0 31	1 076	3	0 28
25–44	7 931	28	0 35	1 777	4	0 23
45 and over	4,241	26	0 61	450	1	0 22
Not stated	29	1		15		
			Rest of Community			
Total	14,798	46	0 31	19 256	36	0 19
15–24	4 441	6	0 14	4 506	5	0 11
25–44	6 239	14	0 22	9 005	23	0 26
45 and over	4 070	26	0 64	5 656	8	0 14
Not stated	48			89		

TABLE 6 —PREVALENCE OF NONTUBERCULOUS INTRATHORACIC PATHOLOGY BY OCCUPATIONAL GROUP

Group	Number X rayed	Total Nontuberculous Findings: Number	Per Cent	Cardiovascular disease: Number	Per Cent	Neoplasm: Number	Per Cent	Pulmonary Fibrosis: Number	Per Cent	Nonspecific Infection: Number	Per Cent	Miscellaneous: Number	Per Cent
Total	51,529	630	1 22	389	0 75	17	0 03	169	0 33	25	0 05	30	0 06
Industry	17 475	221	1 26	93	0 53	5	0 03	101	0 58	11	0 06	11	0 06
Community	34 054	409	1 20	296	0 87	12	0 04	68	0 20	14	0 04	19	0 06

TABLE 7 —RESULTS OF INITIAL 14- BY 17-INCH FOLLOW-UP FILM EXAMINATIONS OF PERSONS WHOSE SURVEY FILMS SHOWED DEFINITE OR SUSPECTED TUBERCULOSIS

Initial Survey Film (Tuberculosis Diagnosis)	Initial Follow-up Films (14 by 17) Number	Per Cent of Survey films Followed	Diagnosis from Initial Follow-up Film (14 by 17) Probably Active	Probably Inactive	Suspect	Nontuberculous	Deferred	Negative
Total	481	332	69 0	96	206	7	2	2	19
Probably active	150	105	70 0	90	1		2	2	10
Probably inactive	319	215	67 4	3	204				8
Suspect	12	12	100 0	3	1	7			1

ther the survey film diagnosis nor the large film diagnosis may in any way be considered as a *final* diagnosis or determination of activity In having the physician with the x-ray units, who should be experienced and qualified in the interpretation of chest x-ray films, make a *tentative* diagnosis and estimate of clinical status on the basis of the examination of a small or a large film, the purpose is to provide an index to public health workers for priority of follow-up and also, if for some reason follow-up is not carried out, to have some idea of what type of tuberculosis remains unsupervised in the community The final diagnosis and determination of clinical status, obviously, is reached by thorough study by all accepted methods through effective follow-up In other words, the survey points to the need for effective follow-up Effective follow-up implies nursing visits and study of the patients by all the methods, including additional clinical, x-ray, and laboratory study, in order to reach a final definite diagnosis

Summary

1 A total adult population chest x-ray survey of Niagara Falls was completed in eight weeks, during which 52,137 individuals were x-rayed, of whom 99 per cent were fifteen years of age or older

2 It is estimated that 75 4 per cent of the resident adults eligible for x-rays were examined

3 The highest percentage of adults x-rayed was in the age group fifteen to twenty-five and the lowest in those over forty-five. The largest number of individuals examined was in the age group twenty-five to forty-four

4. In all age groups, more males than females were x-rayed

5 On the basis of survey film interpretations, 481, or 0 9 per cent, of the films showed evidence suggestive of definite or suspected tuberculosis Of these, 150, or 0 29 per cent of the total x-rayed, were considered tentatively to have probably active tuberculosis The rate of probably active tuberculosis was twice as high among males as among females

6 In both sexes and in all the age groups, the rate of probably active tuberculosis was highest among males forty-five years of age or older This emphasizes the seriousness of the problem among older males and points to the need for increasing all efforts to x-ray the chests of all individuals in this high prevalence group

7 Only 12, or 8 per cent, of the probably active cases had been reported previously, the remainder, or 138, therefore, were new to the Health Department

8 By stage of disease, the probably active cases were classified as follows minimal, 79 per cent, moderately advanced, 19 per cent, far advanced, 2 per cent

9 Nontuberculous intrathoracic conditions were diagnosed in 630 individuals, for a rate of 1 2 per cent Of these, 389, or 0 8 per cent, were suggestive of heart disease, and 169, or 0 3 per cent, of pulmonary fibrosis In 17 films, abnormal shadows were found which were interpreted as probably being due to intrathoracic tumor

10 Industrial employes showed a higher rate of probably active tuberculosis for both sexes, and this was more pronounced in males than in females

11 Follow-up 14- by 17-inch film examinations were possible during the survey for 69 per cent of the persons whose survey films showed definite or suspected tuberculosis Of the 320 persons x-rayed on 14- by 17-inch films, whose survey films showed definite tuberculosis, the large films showed agreement in 294 cases, or 92 per cent

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DIARRHEA OF THE NEWBORN

An Approach to Control Through Minimum Standards of Nursery Care*

RAY E TRUSSELL, M D , Albany, New York

(*From the Albany Medical College and the New York State Department of Health*)

ALTHOUGH diarrhea of the newborn was not reportable in New York State until the middle of 1946, a total of 28 nursery epidemics came to the attention of the State Department of Health during the six-year period, 1942 through 1947 There were 618 ill infants with 62 deaths These data are known to be incomplete

Because of the continuing development of such epidemics, the need for a control program seemed evident The clinical manifestations which were grossly similar in the various outbreaks were conceivably due to a variety of causative agents in the light of past experience The mechanism of spread sometimes seemed evident but often was not detectable through epidemiologic study The mortality rate in the various outbreaks varied from 0 to 50 per cent with inadequate criteria for prediction of the ultimate outcome Thus, any approach to control had to be partly specific and partly general and aimed at preventing the introduction and spread of infection in hospital nurseries The adoption and application of minimum standards for nursery care of newborn infants was the logical answer to the problem in the light of current knowledge

The standards adopted by the Public Health Council were based on the following

1 Epidemiologic studies in New York State and elsewhere
2 Recommendations of the American Academy of Pediatrics, Committee on Fetus and Newborn
3 Children's Bureau recommendations
4 Michigan Health Department's extensive research program on diarrhea of the newborn.
5 Medical Society of the State of New York, Council Committee on Public Health and Education
6 Hospital association representatives
7 Laboratory studies of formula sterilization
8 Individual consultants from many fields of interest

Briefly, the standards now embodied in the Sanitary Code require terminal "sterilization" of the formula in individual feeding bottles with nipple and cap attached, certain principles of isolation, the use of the "suspect" nursery system for observing infants with suspicious signs of illness, individual care for each infant with his own equipment, careful handwashing by physicians and nurses after coming in contact with any infant, adequate space for nursing care, adequate numbers of nursing personnel, and a limit on the number of infants in each nursery

The regulations are brief and allow for considerable flexibility in their application Detailed standards were not utilized because upstate hospitals and maternity homes vary in bassinet census from two to more than 70 and must meet the minimum standards with existing facilities and community resources The regulations have been the subject of favorable editorial comment, have been approved of by the individual members of the American Academy of Pediatrics, Committee on Fetus and Newborn, and have been sent by this committee to its subcommittees in other states and in certain territories with the suggestion that similar legislation be secured Thus, the New York State program has emerged as an effort attracting national attention Its success or failure depends on the medical, nursing, and administrative staff of each hospital in the upstate area

Initiation of the Program

During the last nine months of 1948, the Medical Society of the State of New York and the State Department of Health jointly sponsored an educational program to acquaint hospital administrators, physicians, and nurses with the newly adopted standards and to point out various feasible ways of meeting the requirements of the Sanitary Code which became effective January 1, 1949 Letters of explanation, reprints, suggested procedures, and questionnaires planned as means of self-evaluation were distributed Eleven regional institutes were held which were attended by 982 administrators, practicing physicians, nurses, and health officers Consultation was given by a hospital nurse consultant and/or an epidemiologist in approximately 120 hospitals A series of newspaper and radio announcements were released to acquaint the communities with the impending changes and the ways in which

* Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Public Health, Hygiene and Sanitation, May 5 1949

* This presentation is a progress report and the introductory remarks are merely a summary of more detailed discussions given elsewhere

they could assist their hospitals The emphasis throughout has been on simplification of technics, use of existing equipment, and careful study of each hospital's problem to avoid expenditures beyond the hospital's needs and the community's resources

Scope and Magnitude of the Hospitals' Problems

As crude measures of the scope and magnitude of the hospitals' problems, data collected in 1948 through questionnaires from 224 or 99 per cent of the 226 upstate hospitals and maternity homes with nurseries for newborn infants can be quoted The purpose here is to illustrate certain gross needs in the total upstate hospital group No attempt has been made to break the data down according to certain subclassifications of hospitals No criticism is intended of hospitals which were in their overcrowded and understaffed status due to the increasing demand for hospital deliveries Many hospitals were doing a splendid job of maintaining precautions for protection of the newborn before the control program was inaugurated

If certain of the requirements of Regulation 35 are used, the status of the 224 hospitals can be summarized as follows (Table 1)

From this tabulation it can be seen that overcrowding, understaffing, lack of handwashing facilities, equipment and bathing and dressing tables common to several infants in a nursery, and lack of protection afforded by terminal heating of formulas were problems of considerable magnitude in the 224 hospitals

Transition Period

When the Public Health Council adopted the new standards, it was with the full realization that reconstruction is costly and time-consuming and that additional nurses cannot be trained and employed overnight For these reasons, provision was made to defer enforcement of the requirements specifying floor space allowances, maximum number of infants per nursery, and maximum number of infants to be given care by one nurse until January 1, 1951, if the hospital administrator and the responsible health officer agreed that such were necessary

Up to the present time 108 hospitals have been granted deferments to the average space requirements for each infant Of these 53, or 49 per cent, asked for a maximum deferment of two years, although several have definite building programs underway or financially assured The remaining 55, or 51 per cent, are making the necessary changes in less than two years

In addition, 84 have been granted deferments to the requirement that no nursery shall house more than 12 infants Of these 40, or 47 7 per cent, were for the maximum deferment of two years

Finally, 68 have been granted deferments to the requirement that no nurse shall give care to more than 12 infants Of these, 36 or 52 9 per cent, were for the maximum deferment of two years

Thus, about 50 per cent of the hospitals granted deferments of any type have arranged already to be in complete compliance in less than two years Many other hospitals made the necessary changes before last January

It should be pointed out that many of these situations requiring deferments were borderline, and the hospitals requested deferments as precautionary measures The attitudes of the hospital administrators and medical and nursing staffs have been splendid Excellent cooperation has been an almost universal experience for those of us who have been working with the hospitals during the last year Many hospitals have made outstanding efforts not only to meet the minimum standards but also to include in their nursery policy and procedures additional detailed recommendations of the American Academy of Pediatrics

TABLE 1.—Status of 224 Hospitals

Requirement	Number Meeting Requirement	Number Not Meeting Requirement	Total	Per Cent Not Meeting Requirement
Nurse–baby ratio of 1 12 around the clock	150	74	224	33 0
24 square feet of floor space per infant or cubicles	77	147	224	65 6
Not more than 12 infants per nursery	111	101	222	45 4
Intercommunicating nurseries prohibited	193	28	221	12 7
Isolation facilities—permanent or temporary	209	8	217	3 7
Individual equipment for each infant except for weighing scales	105	118	223	52 8
No common carriers for bassinets	143	80	223	35 9
Handwashing facilities in *all* nurseries	166	57	223	25 6
Formula in individual feeding bottle at time of preparation with nipple and cap attached	176	46	222	20 7
Terminal heating of formula	93	128	221	57 8
Bulk storage of formula prohibited	170	54	224	24 1
Separate nurses for sick and well infants	191	32	223	14 3
Individual care of infants	100	123	223	55 2
Common bath table prohibited	99	123	222	55 4
Common dressing table prohibited	100	123	223	55 2

Future Policies

Having passed through this initial educational effort and the period of change-over in the hospitals as far as it has progressed, what of the future? The enforcement of the minimum standards for nursery care in each hospital is now the responsibility of the full-time health officer or commissioner of the city, county, or district within whose jurisdiction the hospital is located Every effort will be made to continue the program on an educational level In so doing at least three resources will be utilized beyond those locally available through the health officer (1) consultation services from the State Department of Health and (2) distribution of appropriate manuals of recommended procedures For example, the newly adopted official manual of recommendations for care of the newborn published by the American Academy of Pediatrics is being sent to every hospital and every health officer who will be working with these hospitals (3) A demonstration and training center has just been organized in the Brady Maternity Hospital in Albany This training center will be utilized first, to give public health nurses, who will be working with hospitals, and health officers actual experience in carrying out simplified techniques and meeting the Sanitary Code requirements, second, to give short-term intensive training to nurses from hospitals in need of assistance, and third, to demonstrate to health officers and other physicians the recommended procedures in actual practice This center is designed to meet an immediate need and will not be a substitute for the long-term training so desirable for well-trained supervisory personnel

Evaluation

It is impossible at this time to evaluate the long-range results of this control program Approximately a year has elapsed since the initiation of the educational program described There were two epidemics in progress last May, 1948, when the regional institutes were being held In July, 1948, there was one bizarre explosive outbreak which was confined to breast-fed infants and was self-limiting and nonfatal The same hospital recently had another nonfatal outbreak No epidemics have been reported from the other 225 hospitals and maternity homes in the past twelve months No lasting importance can be attached to this analysis at present Similar epidemic-free periods have occurred in the past At present, it can be said only that the situation appears encouraging If it remains favorable, it will be the result of a continuation of the wholehearted cooperation of administrators, physicians nurses and health department personnel which has been so evident up to the present time

Discussion

Harold Abramson, M D , *New York City* —It is indeed a pleasure to discuss Dr Trussell's progress report on the New York State Department of Health's program for the prevention of diarrheal disorders among newborn infants in obstetric nurseries The planning and effort involved in conducting such a campaign is considerable. Almost fifteen years have elapsed since the attention of public health workers was first called to the prevalence of fatal diarrhea in newborn infants Since that time, interest has heightened in the problems of newborn infants and in the improvement of their medical and nursing care Sanitary Code regulations have been rapidly enacted placing the conduct of maternity and newborn nursery services under the direct jurisdiction of local and state health departments Suggested standards have also been advanced by various national health organizations In the main, these regulations and standards have sought to establish practical methods of medical and nursing procedure and to prescribe certain minimal physical requirements and equipment to insure the safety of mothers and their babies in hospitals giving lying-in care

It will be noted that regulation of maternity services had its origin in cities such as New York and Chicago From this broad local base, supervision has pyramided with separate laws of control at the state level These codes have been topped by suggested standards circularized by national organizations such as the American Academy of Pediatrics and the Children's Bureau A joint committee of the American Hospital Association and the American Public Health Association is now also engaged in forming for distribution suggested minimal recommendations for the control of infection among newborn infants in hospitals Still another committee of the American Hospital Association is attempting to standardize formula preparation procedures

With this multiplicity of regulations, suggested standards, and committees, the thought arises that perhaps the eventual over-all result will be one of confusing, rather than clarifying the basic principles underlying the care of the newborn The problem could perhaps be approached more efficiently by setting up a central advisory committee of interested national health organizations to draw up acceptable basic standards and to coordinate the efforts of the separate committees A vertical organization would, therefore, be established representing the best thoughts on the problem Following the formulation of standards at the national level, the material could be adapted for use at the state level and finally tailored to suit needs at the local level.

Furthermore, it has been our experience that the various plans that have been advanced seem restricted in scope and place main emphasis on the control of the diarrheal diseases of newborn infants

The prevalence of infection, such as sepsis, impetigo, respiratory disorders, and thrush seems to have been overlooked In addition, the special problem of the premature infant has not been brought to the fore The care of mothers is also not sufficiently stressed

It would appear that more comprehensive programs are in order The projects should have horizontal, bilateral extensions to include the prenatal care of mothers at one extreme and the postpartum care and follow-up of mothers and their babies at the other extreme In between, the goal to be achieved is the safe routing of mothers and babies through the hospitals The psychologic relationship between mother, baby, and father should be borne in mind to maintain the family unit Whether the small nursery unit or the rooming-in system of care is best suited to achieve this end must be left to the test of time At any rate, with early ambulation, the mother should participate more and more in the care of her infant in the hospital

A modern and completely equipped physical plant is, of course, desirable But even more important is the establishment of safe, practical, and closely supervised medical and nursing policies and procedures As has been indicated by Dr Trussell, the continued training of physicians, nurses, and other hospital personnel in the care of mothers and babies should be weighted heavily It has been our experience in New York City that there are two items of paramount importance that cannot be spelled out or written into any code or system of standards They are *an understanding of the quality of care* and *the art of its administration* It is here that education plays so important a role This phase of the project is one of long-term instruction and training

One would be remiss if one failed to include in this discussion the need for better methods of study and differentiation of the diarrheal disorders of the newborn, as well as other communicable disorders to which newborn infants are peculiarly susceptible. Main reliance in the differentiation of the diarrheal diseases must at present be based on clinical criteria. The cases must, furthermore, always be considered in relationship to possible points of origin of infection and methods of spread. Postmortem examinations should be more thorough

Except in instances of infection by organisms of the Salmonella or Shigella groups, present bacteriologic procedures offer no aid in diagnosis There are a limited number of laboratories that can carry out virus studies of the type required in investigations of the diarrheal diseases The few reports that have been published thus far have not conclusively indicated a causal relationship of outbreaks to the agents isolated Progress in the prevention and control of the diarrheal diseases will be impeded until suitable laboratory technics are evolved for differential diagnosis In the future, projects designed to control the spread of diarrheal and other infections in newborn infants should provide for adequate laboratory investigations

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THE PROBLEM OF CEREBRAL PALSY

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CEREBRAL palsy has been defined as "a group of conditions which affect the control of the voluntary motor system and which have their origin in lesions of various parts of the brain."[1] The symptoms have been classified under five categories, namely, spasticity, athetosis, ataxia, rigidity, and tremors It has been estimated that approximately one third of the cases are associated with mental deficiency The extent of involvement and the degree of functional loss vary considerably among the afflicted persons Formerly, the condition was looked upon as one of hopeless invalidism, and unfortunately both patients and families harbored a sense of shame in connection with it More recently, great claims have been made regarding remarkable results which might be achieved with cerebral palsy patients if only the necessary personnel and facilities were made available As a result, there have appeared many arbitrary statements regarding the needs of cerebral palsy patients and the responsibility of official and voluntary agencies at the State and local levels to meet these needs Unfortunately, there have been little data available regarding the indicated scope and the actual potentialities of any large-scale program.

Perlstein has estimated that seven persons with cerebral palsy are born every year for each 100,000 of the population, and that six of these survive past the sixth year of life [2] This formula cannot be considered as generally applicable because no supporting data have ever been published and because it does not take into consideration the age distribution of the population and other factors which affect the birth rate

During the latter half of 1948, a survey was conducted in Schenectady County for the purpose of more clearly defining the problem of cerebral palsy with reference to its incidence and prevalence, variations in morphologic and functional types, sociologic aspects, and special needs for medical and related services This survey was carried out by the New York State Department of Health, with the State Departments of Mental Hygiene, Education, and Social Welfare serving in an advisory capacity Extra funds were made available by the Joint Legislative Committee to Study the Problem of Cerebral Palsy Many Schenectady City and County official and voluntary agencies cooperated by making their records on cerebral palsy patients available to the survey staff Foremost among these was the Eastern New York Orthopedic Hospital-School, popularly known as Sunny View, which also provided the facilities for the special clinics held in connection with the study

The purpose of this article is to highlight some of the findings of the Schenectady County survey and to point out the scope of the State program during the current fiscal year

Schenectady County Survey

Prevalence Study —The study of prevalence of cerebral palsy in Schenectady County was conducted in two steps First, all cases known to any medical or welfare agency at the State or local level were collected in a roster of known cases In addition, questionnaires were sent to each of the physicians practicing in the County, inquiring of cases of cerebral palsy known to them All the names obtained from these various sources were checked for duplications Each unduplicated case was then checked to ascertain whether the named person was still residing in the County

This procedure revealed that a total of 125

* By invitation.

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TABLE 1 —PREVALENCE OF CEREBRAL PALSY ACCORDING TO AGE

Age	Population*	Reported Cases in County — Number	Reported Cases in County — Prevalence Rate†	Discovered Cases in Canvass Area	Estimated Cases in County — Number	Estimated Cases in County — Prevalence Rate†
All	137 488	125	90 9	14	209	152 0
Under 5	12 751	16	125 5	3	34	266 6
5–9	9 311	41	440 3	3	59	633 7
10–14	7 103	18	253 4	3	36	506 8
15–19	8 928	10	112 0	1	16	179 2
20–24	11 031	15	136 0	2	27	244 8
25–34	25,293	19	75 1	0	19	75 1
35 and over	63 071	6	9 5	2	18	28 5

* As of July 1 1948, total population estimated by Office of Vital Statistics New York State Department of Health. Age distribution is that found in sample population comprising 16 4 per cent of estimated total population.
† Per 100 000 population.

patients with a diagnosis of cerebral palsy were known to be residing in the County at the time of the survey As the Schenectady County population in 1948 was estimated at 137,000, the prevalence rate of known cases is 91 per 100,000 population (Table 1)

The *second step* was a canvass of a representative sample of the population for the purpose of uncovering cases not known to any physician or agency In the City of Schnectady and in the adjacent villages of Scotia, South Schenectady, and Carman, the original canvass plan included every fourth house or apartment In the rural areas of the County, patches of territory corresponding to about 25 per cent of each township were selected at random, and all dwellings within each patch were included in the plan

A staff of 18 medical students was recruited during their summer vacations for the purpose of interviewing the families residing in the selected houses The prepared questions were broad in scope and were designed to discover all persons who might possibly have cerebral palsy The exact determination of the diagnosis was left to subsequent medical examination.

Because the medical students were available only during the summer months, it was not possible to cover the total of 25 per cent of the population called for in the original plan However, the investigation obtained adequate information concerning 22,528 persons, or 16 4 per cent of the estimated total population Because of its random method of selection, this sample was considered sufficiently large to be representative of the total County population. The age distribution of individuals in the canvassed groups did not differ in any significant way from that of Schenectady County's population as recorded in the 1940 census and was also essentially similar to that of New York State The representativity of this 16 4 per cent sample was further indicated by the fact that the canvassed area was found to include the residences of 20, or 16 per cent, of the 125 already known cerebral palsy cases

Fourteen cerebral palsy persons not previously known as such to any of the physicians or agencies cooperating in the study were discovered by the investigators, the exact diagnosis being confirmed by later medical examination If the sample is truly representative, it can be assumed that, had the entire county been canvassed, a total of six times that number, or 84 previously unknown cases of cerebral palsy, would have been found Therefore, the estimate for the total number of cerebral palsy cases in the County is 125 known, plus 84 unknown cases, or 209 cases in all This is equivalent to a prevalence rate of 152 per 100,000 population.

A puzzling feature of the age distribution of known cerebral palsy cases is the relatively low prevalence in the first few years of life. One would ordinarily expect that a condition which is most often congenital would be found with maximum frequency in the group under five years of age If all cases were diagnosed and reported during the first year of life, the prevalence would be highest at age one and would decrease in subsequent years in proportion to whatever excess mortality exists among cerebral palsy patients as compared with all other individuals Yet, the maximum prevalence of known cases in this survey was found in ages five through nine years, in which the rate was 440 per 100,000 population of that age The rate among children under five years was only 126 per 100,000, or less than one third as great

The most apparent explanation for this difference is that a high proportion of cerebral palsy cases are either not diagnosed or not reported to any medical agency during the first five years of life Diagnosis at ages under one year is difficult Parents often ignore or minimize any neuromuscular difficulties which they may notice in the infant in the hope that he will outgrow them, or, on the other hand, may try to shield the child from any public agency because of a sense of shame Yet, the attempt made in this survey to discover such cases was only partly successful The survey did uncover three new cases in each of the younger age groups, under five years, five to nine years, and ten to fourteen years However, when the total number of cases was estimated for each age group, the deficiency of cases in the youngest age group was not significantly offset The prevalence rate for total estimated cases in the "under five" group was 267 per 100,000, still less than half that for the five-to-nine-year group which was 634

In establishing the criteria for the diagnosis of cerebral palsy for the purpose of this study, it was decided to limit this designation to those patients whose symptoms had been manifested before the age of twelve An analysis was made to determine the relative incidence of congenital causes of cerebral palsy and of postnatal causes such as meningoencephalitis or trauma Information regarding the time of onset of the symptoms and the relationship to any postnatal factor was available for 121 patients Of these, only ten, or 8 3 per cent, had a history of manifestations of cerebral palsy appearing subsequent to cerebral trauma or to an infectious disease suggesting meningoencephalitis In nine of these ten cases, the causative factor appeared after the fifth year In the remaining 111 cases, the symptoms appeared at birth or within the first six months.

When the prevalence data were corrected by

omitting cases developing postnatally, there was still a marked discrepancy between the prevalence of congenital cases under five years and those between five to nine years The rates per 100,000 population were 251 and 591, respectively It appears that the figure of 591 per 100,000, or 5 9 per 1,000, is close to the true incidence of the disease among newborn infants and that the lower figure for prevalence in the under-five group, is observed only because of failure to detect cases despite the direct type of survey conducted in Schenectady County

The Socioeconomic Aspects—The families of 104 patients with cerebral palsy were visited by trained medical social workers for the purpose of determining the social and economic background in which cerebral palsy occurred and the effect of the disease upon the adjustment of the patient to his disability and to his environment For the purpose of obtaining control data, similar interviews were held with an additional 109 families, 30 of which had no physically handicapped member and 79 of which had one or more members with a handicapping defect other than cerebral palsy

Analysis of the economic status of the families revealed that cerebral palsy was no respecter of economic level and that the financial resources of the cerebral palsy families were similar to those of both control groups The occupations of the chief wage-earners and the educational backgrounds of both parents were likewise similar in distribution in the cerebral palsy and the control families In general, the families of both the cerebral palsy patients and the families with other physical handicaps paid somewhat smaller amounts for monthly rentals than did the so-called "healthy" families This may be related to the large portion of family budgets utilized for the care of disabled members Even many of the higher income group reported that the costs of providing care for the cerebral palsy patient had resulted in serious strain on the family economy

Only 22 per cent of the patients with cerebral palsy who were five years of age or older were or had been able to attend regular school and maintain their proper grade Another 17 per cent were or had been able to attend regular school but had fallen two or more years behind the grade expected for their chronologic age Thirty-four per cent of the patients were or had been assigned to special school classes or committed to special institutions because of serious mental or physical incapacity, and 27 per cent had never been able to attend any school whatsoever As would be expected, adjustment to school was related to the severity of involvement Fifty-three per cent of those with mild handicaps were attending or had attended regular school in their proper grades compared to only 13 per cent of those with severe handicaps On the other hand, only 6 per cent of those with mild handicaps had never been able to attend school, contrasted to 35 per cent of those with marked handicaps

Regarding employment, 21 per cent of the cerebral palsy patients over twenty years of age were found to be working full time, 17 per cent part-time or irregularly, and 62 per cent not at all It was observed by the interviewers that employability in general was dependent not only upon the extent and degree of involvement but also upon the type of personality and emotional adjustment to the disability There were several patients with considerable loss of function who were able to make useful citizens of themselves, either by taking care of households or by managing to maintain some form of self-support In contrast, there were several persons with relatively slight degrees of disability who could not maintain a degree of self-sufficiency because of a severe emotional reaction to the defect or because they tended to use the defect to protect them from facing the realities of life

The Clinical Picture of Cerebral Palsy—An evaluation was made regarding the extent of involvement and degree of functional loss for those cerebral palsy patients appearing on the roster This roster contained 147 names, including the 125 patients who had been known to the various medical and welfare agencies, the 14 newly discovered patients encountered during the canvass of the sample area, and nine additional patients who became known to the staff during the course of the survey as a result of information submitted by interviewed persons In 79 instances the evaluation was based upon a physical examination arranged especially for this purpose and conducted by a physician with special training in cerebral palsy Eight evalua-

TABLE 2—CLASSIFICATION OF 132 CEREBRAL PALSY PATIENTS AND ANALYSIS OF SPASTIC AND RIGID CASES BY EXTENT OF INVOLVEMENT

Classification of 132 Cerebral Palsy Patients by Major Manifestation

Manifestation	Number of Patients
Spasticity	72
Rigidity	16
Athetosis	17
Ataxia	18
Indefinite	9
Total	132

Classification of 70 Spastic and 16 Rigid Cases by Extent of Involvement

	Spastic	Rigid
Monoplegia	2	0
Paraplegia (lower extremity)	14	0
Hemiplegia	37	9
Quadriplegia	19	7
Total	72	16

tions were made by the patient's private physician Forty-five patients did not have special examinations, but sufficient data for evaluation were available through clinic and hospital records or from sociologic interviews with the families Twelve patients were in State schools for the feeble-minded and one patient with epilepsy was in Craig Colony It was not possible to obtain sufficient data for an evaluation of two patients

The data are presented in Table 2 Of the 132 patients on whom adequate data were available and who were not in institutions, 72 showed spasticity, 16 rigidity, 17 athetosis, and 18 ataxia In nine instances, no specific classification could be assigned. Table 2 also includes an analysis of the spastic and rigid patients according to extent of involvement

Sixty-five, or 45 per cent, of the 145 patients were considered to be mentally deficient or to be so severely handicapped as to be unable to give evidence of satisfactory intelligence Twelve of these were in institutions for the feeble-minded, and 34 others had received low ratings in school psychometric tests The remaining 19 were rated as mentally defective because of serious retardation at school or obvious lack of mental development It is quite probable that in some instances patients with normal intelligence were unable to achieve satisfactory psychometric ratings or to demonstrate intelligent behavior because of serious physical defects

All of the 145 patients were reviewed from the viewpoint of what services were indicated to give the patient the best possible chance of maximum improvement The variety of services needed for cerebral palsy patients is extraordinarily complex including as it does many medical and other professional specialties in a wide range of outpatient, inpatient, educational, and institutional types of care The patients studied in this way were grouped into three categories (1) those who needed no services, (2) those whose needs could be met while they lived at home, and (3) those who required permanent or prolonged institutional or hospital care The data are summarized in Table 3

TABLE 3.—NUMBER OF CASES NEEDING NO SERVICES, OUTPATIENT SERVICES OR INPATIENT SERVICES (BY AGE)

Type of Services Needed	Total Patients	Under 5 years	5–9 Years	10–14 Years	15–19 Years	20 Years and Over
All	145 (100%)	17	46	21	12	49
Inpatient						
Hospital school	12 (8 3%)	2	4	2	2	2
Custodial institution	27 (18 6%)	2	7	5	2	11
Outpatient	93 (64 1%)	12	34	11	7	29
None	13 (9 0%)	1	1	3	1	7

1 Thirteen, or 9 0 per cent, of the 145 evaluated patients had such a slight degree of handicap or were so well-adjusted that they did not require any special services

2 Ninety-three, or 64 1 per cent, of the patients were believed to be able to profit by some form of outpatient service The cerebral palsy patient considered under this heading is one whose family can provide a suitable home condition for him and, if necessary, can assist him in taking care of his routine personal needs and whose physical and mental condition called for such services as periodic examination by an expert medical team, physiotherapy, occupational therapy, brace fitting, speech therapy, psychometric testing and follow-up, medical social service, and vocational training The availability of these services offers the patient a chance to achieve maximum rehabilitation while remaining in his own home environment and, in many instances, allows him to carry out activities such as attending school and obtaining vocational training or actual employment

As indicated in Table 4, in almost two thirds of the cases it was believed that such outpatient services might best be combined with schooling for patients of school age or for those over twenty years of age in need of vocational training From the psychologic viewpoint, it was felt that, wherever possible, the children should be assigned to regular school classes This was considered feasible in 21 instances Special classes, because of serious mental retardation or severe physical handicap, were indicated in 33 instances Special vocational training classes were indicated for

TABLE 4.—TYPE OF OUTPATIENT SERVICES NEEDED BY 93 CEREBRAL PALSY PATIENTS ACCORDING TO AGE GROUP

	Total	Under 5 Years	5–9 Years	10–14 Years	15–19 Years	20 Years and over
All Cases	93	12	34	11	7	29
Outpatient services associated with schooling	60		30	11	6	13
Regular class with physiotherapy	19		11	6	2	
Special cerebral palsy class	22		18	4		
Class for mentally retarded	3		1	1	1	
Vocational training	16				3	13
Outpatient services for patients below or above school age or unable to attend school	33	12	4*		1	16

* Includes three patients temporarily unable to receive any schooling because of medical status and one patient whose phy sical incapacity necessitated home tutoring.

16 patients, three of whom were in the fifteen-to-nineteen-year age group and 13 of whom were twenty years or older

The remaining 33 patients who were considered capable of benefiting from ambulatory services were either below or above school age or, for various reasons, were unable to attend school. It should be pointed out that the need for ambulatory services will be increased when patients requiring prolonged hospitalization are referred to ambulatory services when such hospitalization is completed. Many may refuse hospitalization, and then the need for ambulatory services would be increased immediately.

3. Prolonged hospitalization for periods ranging from three months to several years was recommended for 12 patients with cerebral palsy. Such hospitalization was prescribed when special orthopedic surgery was indicated or when it was considered that the amount of muscle training, physiotherapy, and speech analysis required was so intensive that possible benefit might be obtained only by placing the child in a hospital. Obviously, upon the completion of such treatment these patients would be referred for continued ambulatory service.

Custodial care was recommended for 25 patients with serious degrees of feeble-mindedness and also for two patients with normal mentality but with physical disabilities so great as to make care at home impracticable. Twelve of the patients with serious mental insufficiency were already confined to State schools for the feeble-minded. The survey revealed 13 other similar patients for whom such institutional care was immediately desirable. There were eight additional instances in which home care for feeble-minded cerebral palsy patients seemed adequate for the present but for whom it appeared likely that such care could not be provided for any considerable period in the future and that institutionalization would eventually be necessary.

Of the two patients with normal mentality for whom custodial care seemed indicated, one had epilepsy and was already confined at Craig Colony. In addition, there were two patients with similar clinical conditions for whom care was being adequately provided at the time of the survey but who would require custodial care in the near future when it seemed likely that the parents or other relatives would no longer be able to provide for them.

Comment

If the observations made in Schenectady County may be considered as applicable to the State as a whole, the total number of patients with cerebral palsy in New York State would be estimated at 22,000. Although these statistics comprise the most reliable data available at the present time, it must be considered that they are based upon findings observed in one county only. Before they can be considered as truly indicative of the total State figure, additional surveys must be conducted in one or two additional counties.

Even allowing a considerable degree of error in the estimated State total, the problem of cerebral palsy is still of major significance. On the basis of a birth incidence of 5.9 per thousand births, there are approximately 1,500 children born with cerebral palsy each year in this State, of whom, according to Phelps' estimate, approximately 200 die within the first five years of life. Of the remaining 1,300, 8 per cent, according to the Schenectady data, are only slightly handicapped, leaving an increment of approximately 1,200 individuals moderately or severely handicapped by cerebral palsy each year.

It is of interest to compare this estimate of cerebral palsy incidence with the corresponding data for recorded cases of poliomyelitis. During the five years from 1944 through 1948, including the epidemic year of 1944, there was an annual average of 2,845 cases of poliomyelitis reported. Published data indicate that 3 per cent of poliomyelitis cases die, and 14.5 per cent are left with moderate, marked, or complete residual paralysis. Assuming these figures to be generally applicable, there would occur an average annual increment of 412 patients with moderate or severe physical handicaps caused by poliomyelitis each year. This is approximately one third the number handicapped each year by cerebral palsy.

There is no doubt that the need for therapeutic and rehabilitative services for cerebral palsy patients is great. Parenthetically, it should be emphasized that the term "rehabilitation" is used here in its broadest sense of implying the training of the patient to utilize his neuromuscular resources to the greatest possible extent so that he may become wholly or partially self-sufficient and self-supporting. Obviously, in the case of congenital cerebral palsy patients, it could not be applied in its more narrow sense of meaning the restoration of a body to a previously normal condition, inasmuch as these patients had never known a normal status of body build and function.

Remarkable results have been achieved with formerly bedridden patients who, as a result of intensive therapy and sound adjustment, have become self-supporting. Such achievements cannot be expected for all cerebral palsy patients, particularly those with very severe physical handicaps or with serious mental deficiency. However, many of these now helpless invalids can be raised to an achievement level at which they can at least take care of their own personal needs. It makes a tremendous difference to the

family, school, or institution whether a patient can dress and feed himself Frequently, nothing short of an attempt at rehabilitation and training can demonstrate the real physical and mental potentialities of these patients

The New York State Department of Health has been spending about half a million dollars per annum for services to cerebral palsy children during recent years Direct services by the State have included medical or surgical care at the New York State Rehabilitation Hospital at West Haverstraw, diagnostic evaluation at special clinics, and physiotherapy by staff nurses and technicians Services are provided indirectly through State reimbursement to upstate counties and to New York City for the costs of care authorized for these patients by the county children's courts and by the New York City Department of Health Research studies in cerebral palsy are conducted either directly by the State Department of Health staff or by contract with medical agencies

For the fiscal year beginning April 1, 1949, the expenditures by the Department for cerebral palsy services are to be increased to over one million dollars Aside from increases in the costs of providing the services described above, the major items in this augmented program are the provision of $100,000 for outpatient diagnostic and therapeutic services, experimentation with cerebral palsy classes in cooperation with the State Education Department and provision of $250,000 for alterations to the Rehabilitation Hospital to allow it to care for 65 patients with cerebral palsy at any one time An important additional item is the provision of $25,000 to support training of physicians, physical therapists, occupational therapists, speech therapists, and other professional personnel in the management of cerebral palsy These funds are in addition to those expended by the State Departments of Mental Hygiene, Education, and Social Welfare in providing services to cerebral palsy patients or to their families

The program of the State Department of Health can be much enhanced by more active support by the full-time county and city health departments The local health officers are in a position to make a very significant contribution by expanding their current crippled children's programs The operation of cerebral palsy clinics might well be operated by the local health departments as a regular activity Cooperation with the local departments of education would result in the development of facilities for care within the school system for the large proportion of patients of school age who require frequent therapy The activities of the public health nurses and the medical social workers, when available, could be of great value in case-finding if adequate local facilities were available to which they might refer suspicious cases encountered during the course of routine activities They could also make a significant contribution in assisting the families and the patients themselves in carrying out therapeutic procedures at home, in making the best possible adjustment to the disease, and in obtaining maximal utilization of community resources in their effort for rehabilitation Very important is the field of public health education directed at acquainting the public with the nature of cerebral palsy so that a community effort may be made to assist the patients, and so that they may thereby not only be aided therapeutically, but will be allowed the best possible chance of establishing themselves as respected members of society

The costs of providing maximal therapy to all patients, along the lines indicated by the Schenectady survey, are so great and the chance of procuring and training sufficient personnel so remote that the combined efforts of State and local official and voluntary agencies are not likely to be able to meet these recommendations on a Statewide basis in the near future One of the most urgent needs is the development of new tests for the determination of educability and of potentialities of muscle training, so that concentration of effort can be directed at those patients found to be best prospects for rehabilitation. Continuation of intensive therapy after maximum improvement has been achieved is an unwise utilization of scarce personnel and facilities and deprives other patients from possible benefit

Summary

1 A survey of cerebral palsy patients in Schnectady County indicates that incidence of this disease is 5 9 per 1,000 live births, and the prevalence is 152 per 100,000 population. This would indicate that there are at least 22,000 persons with cerebral palsy in New York State However, the data are based on observations in one county only, and it would be necessary to repeat this survey elsewhere before the figures can be considered as truly applicable to the State as a whole

2 The occurrence of cerebral palsy bears no apparent relation to social, economic, and cultural factors Financial strain due to providing available care for the patients was evident at all but the highest economic levels

3 Twenty-seven per cent of patients five years of age or older had never attended school, and 34 per cent required special classes or institutional care Sixty-two per cent of the patients twenty years of age or older had never been

employed, and 17 per cent were employed either irregularly or on a part-time basis

4. The Schenectady County survey indicates that 9 0 per cent of cerebral palsy patients require no services, 64 1 per cent need services on an ambulatory basis, 8 3 per cent require prolonged medical treatment at a hospital-school, and 18 6 per cent should be placed in institutions for custodial care

5 In view of the limited number of qualified personnel and facilities available for the treatment of cerebral palsy patients, studies should be made to determine the ultimate which may be expected following the application of optimal treatment and a means determined to screen good prospects for rehabilitation from those who have already achieved maximal improvement

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1 Phelps, W M ed. by Mitchell-Nelson O Textbook of Pediatrics 4th ed. Philadelphia W B Saunders Co 1946 p 1111

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Discussion

Hollis S. Ingraham, M D , *Albany*—The study reported by Levin, Brightman, and Burtt is a noteworthy contribution to the knowledge of cerebral palsy and, additionally, is fraught with significance in certain other aspects The technic of the study itself merits comment

Here essentially is what may be called a field epidemiologic investigation of a noncommunicable chronic disease, utilizing not only Health Department personnel but also calling on the skills of other field workers It is an excellent example of the proper approach to the study of any type of disease prior to the initiation of any planning for control. It is only through combing a community carefully, ringing door bells, and interviewing families that one can hope to secure a true estimate of the prevalence or even of the full range of manifestations of most illnesses This has been demonstrated many times over in the field of the acute communicable diseases Only the illnesses which are obvious and manifest are known to the clinics and hospitals or even to the practitioner In practically all morbid states, there is a group of sufferers hidden from view, like the submerged volume of an iceberg

I am sure, in the future, that health departments will apply these and related technics increasingly to the study of chronic illness We are all aware of the fact that health departments are concerned more and more with the prevention or amelioration of chronic disease, and it is imperative that the technics which they have developed so successfully in the study and control of the acute communicable diseases should be utilized. It is to be noted that the original demand for health department participation in disease control studies often comes from special groups in the population and may, on occasion, be directly translated into legislative action

As a result of the survey itself, surmises as to prevalence can be replaced by estimates founded on an actual sample However, it is to be emphasized that even this large sample is not entirely adequate, and we are not in a position to say that the results of the survey can be applied without further checking to other areas It appears that at least in the survey area the prevalence rate of cerebral palsy is considerably higher than previously surmised, actually being at least double the estimate advanced by Phelps.

On listening to this report, one is again impressed with the complexity of cerebral palsy and with the necessity for giving much additional study and making haste slowly in one's efforts at amelioration

The high proportion of persons in this study found to be suffering from mental defects is particularly tragic and brings home the necessity for the careful screening of patients prior to the initiation of the very long, drawn-out, and exacting training required by so many of these patients

A study of the tables of prevalence by certain age groups calls attention to what would seem to be the excessively high mortality suffered by patients with cerebral palsy This is made apparent by the fact that, while the prevalence rate in the age group of five to nine years is approximately six per 1,000, it has dropped to considerably less than one per 1,000 in the age group centering around thirty, indicating that the mortality rate is many times that of the general population This fact would make one suspect that the excess mortality under five years of age might be even greater and hence the prevalence rates based on the five to nine age group would very seriously underestimate the actual frequency with which patients with cerebral palsy are born

This is on the assumption that the ratio of cerebral palsy individuals does not vary from year to year This assumption may be false It must be further assumed that the group surveyed in Schenectady was reasonably stable Since there has been no sharp increase in population in this area since 1910, this latter assumption is probably not too incorrect

I should like to compliment the authors again on this excellent study and suggest, in closing, that similar investigations are urgently needed in other areas of the country, so that the true situation may be more accurately assessed. Such studies would also demonstrate any trends in prevalence and might be so designed as to give further suggestions on the causation of cerebral palsy

INTERIM SESSION, AMERICAN MEDICAL ASSOCIATION,
DECEMBER 6 TO 9, 1949, WASHINGTON, D C.

VACCINATION AGAINST TUBERCULOSIS

HUGH M KINGHORN, M D , and MORRIS DWORSKI, B S ,* Saranac Lake, New York

(From the Saranac Laboratory)

IN PREVIOUS communications we gave the results of experiments with caseous vaccine, Koch's bacillen emulsion, and Calmette's B-C G [1-4] The caseous vaccine was obtained from the tuberculous lung or tuberculous gland of the cow

Our view was that if we used this caseous material as a vaccine, we might prevent the development of caseation and thus be able to vaccinate animals against subsequent inoculation of virulent living tubercle bacilli

Endeavors to obtain a vaccine for tuberculosis have been directed to the tubercle bacillus, either living or dead, or to substances in the tubercle bacillus We believe, however, that this is only part of a proper conception of the problem, and that as tuberculosis is a tissue disease, the necrotic caseous tissue might also contain substances for effective vaccination This caseous tissue contains not only tubercle bacilli but the substance that produced the caseation This substance was produced by the tubercle bacilli

Tuberculous material from the lungs or lymphatic glands of a bovine is often caseous throughout and can be easily removed as a thick pus suitable for purposes of the experiments

The Department of Agriculture and Markets of the State of New York supplied us with the necessary material, and we are deeply indebted to E T Faulder, J E Boyd, and J Woodward Claris for their interest and help

The preparation of our caseous vaccine and Koch's bacillen emulsion has been described [1] These vaccines are always heated on two successive days for one hour at a temperature between 58 to 60 C and tested for sterility by inoculation into guinea pigs Equal amounts by weight of each vaccine are used in the experiments Time and space will allow us to record only a few of our experiments We first tested our caseous vaccine against Robert Koch's bacillen emulsion, as we considered this to be the safest and best of the killed vaccines

EXPERIMENT 1

This experiment consisted of 30 rabbits, which were divided into three groups

Group A—Ten rabbits treated with Koch's bacillen emulsion made from virulent human tubercle bacilli

Group B—Ten rabbits treated with cow's tuberculous gland emulsion

Group C—Ten rabbits, controls, untreated

The weights of the rabbits in the three groups were about the same The details of the experiment have already been published [1]

TABLE 1 —DURATION OF LIFE

	Total Number of Days After Virulent Inoculation	Average Number of Days After Virulent Inoculation
Group A (koch s bacillen emulsion)—10 rabbits	2 091	209
Group B (caseous vaccine) —10 rabbits	2 348	234
Group C controls (untreated)—10 rabbits	1 661	166

The infecting dose of living virulent bovine tubercle bacilli, 25,000 organisms, overwhelmed the animals of all three groups, and all of them died of far advanced generalized tuberculosis

Group B (caseous vaccine) outlived the control by 687 days, an average of 68 days per rabbit

Group A (Koch's bacillen emulsion) outlived the controls by 430 days, an average of 43 days per rabbit

Group B (caseous vaccine) outlived Group A (bacillen emulsion) by 257 days, an average of 25 days per rabbit

EXPERIMENT 3

This experiment consisted of 60 guinea pigs which were divided into three groups

Group A—20 pigs treated with Koch's bacillen emulsion

Group B—20 pigs treated with caseous vaccine

TABLE 2 —PROTECTIVE VALUES

	No Tuberculosis	Minimal Tuberculosis	Moderately Advanced Tuberculosis	Far Advanced Tuberculosis
Group A—bacillen emulsion—18 pigs	3 (16 6%)	6 (33 3%)	4 (22 2%)	5 (27 7%)
Group B—caseous vaccine—20 pigs	15 (75%)	5 (25%)	0	0
Group C—controls unvaccinated—19 pigs	1 (5 2%)	4 (21%)	3 (15 7%)	11 (57 8%)

Terms

Minimal tuberculosis slight although positive evidence of tuberculosis in some of the lymphatic glands or doubtful disease in one or two organs.

Moderately advanced tuberculosis definite tuberculosis in some of the glands and in some organs but moderate in amount

Advanced tuberculosis extensive disease in the glands and organs.

* By invitation.

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo Section on Pathology and Clinical Pathology May 5 1949

TABLE 3 —EXTENT OF DISEASE (15 MONTHS AFTER FIRST VIRULENT INFECTION)

	No Tuberculosis	Minimal Tuberculosis	Advanced Tuberculosis
Group B—7 rabbits (Caseous vaccine)	6 (85 71%)	1 (14 28%)	0
Group D—8 rabbits (B C G vaccine)	6 (75%)	2 (25%)	0
Group C—9 rabbits (Unvaccinated controls)	1 (11%)	3 (33%)	5 (55½%)

Group C—20 pigs, controls, untreated

This experiment has already been published in detail.[1] Table 2 would seem to represent the protective values of caseous vaccine and bacillen emulsion. The infecting dose was 62,500 organisms of a virulent living human tubercle bacillus culture H_{60}.

In Group B (caseous vaccine), 75 per cent of the animals had no tuberculosis In the remaining 25 per cent there was a minimal tuberculosis No animal reached the moderately advanced and far advanced stages

In Group A (Koch's bacillen emulsion), 16 6 per cent had no tuberculosis In the remaining animals there was a minimal tuberculosis, 33 3 per cent, moderately advanced tuberculosis, 22 2 per cent, far advanced tuberculosis, 27 7 per cent. In this group 50 per cent of the animals reached the advanced stages

In Group C (unvaccinated controls) 5 2 per cent had no tuberculosis In the remaining animals of this group there was a minimal tuberculosis, 21 per cent, moderately advanced tuberculosis, 15 7 per cent, far advanced tuberculosis, 57 8 per cent In this group 73 5 per cent of the pigs reached the advanced stages

A definite immunity was obtained with caseous vaccine and Koch's bacillen emulsion over the unvaccinated controls

EXPERIMENT 6

This experiment was made to compare our caseous vaccine with Calmette's B C G[2] It was divided into three parts first, to determine what degree of immunity each vaccine produced with respect to extent of disease, second, to determine in which group the immunity persisted longest, and, third, to determine whether B C G vaccine would produce disease

The first part of the experiment lasted about fifteen months, that is, from the time the vaccinated animals and the controls received the virulent inoculation. The second part lasted one year, that is, from the time the animals of all three groups received their second virulent inoculation till the time the entire experiment was terminated

The experiment was based upon 58 rabbits divided into the following groups

Group B consisted of 15 rabbits which were immunized with four doses of caseous vaccine obtained from a cow's caseous gland at intervals of ten to eleven days A total of 126 mg was given Thirty-one days after the last vaccination, they were infected subcutaneously with about 5,000 living virulent bovine tubercle bacilli, B_I culture

Group C consisted of 15 rabbits, unvaccinated controls These rabbits were infected with 5,000 B_I culture on the same day as Group B

Group D consisted of 15 rabbits which were immunized with B C G vaccine, in four inoculations with a total dose of 16 mg, on the same day as Group B Thirty-one days after the last vaccination, they also were infected subcutaneously with about 5,000 living virulent bovine tubercle bacilli B_I culture

Group E consisted of nine rabbits which were injected with B C G vaccine at the same time as Group D to determine whether the vaccinating organisms would produce disease They received four inoculations at intervals of ten to eleven days, 16 mg in all.

PART I

The first part of the experiment ended fifteen months from the first virulent infection Duration of life was not significant, as a number of animals from each group died of pneumonia soon after virulent inoculation Two rabbits of Group B (caseous vaccine) died of pneumonia at 39 and 45 days, one rabbit of Group D (B C G vaccine) died of pneumonia at 26 days and showed no tuberculosis. These animals are excluded, as they lived too short a time after infection to be enumerated

Table 3 shows that caseous vaccine and B C G give definite protection

Group B (caseous vaccine) gave 85 71 per cent no tuberculosis, 14.28 per cent minimal tuberculosis, and no advanced tuberculosis

Group D (B C G vaccine) gave 75 per cent no tuberculosis, 25 per cent minimal tuberculosis, and no advanced tuberculosis

Group C (controls, unvaccinated) gave 11 per cent no tuberculosis 33 per cent minimal tuberculosis, 55½ per cent advanced tuberculosis

PART II

This was for the purpose of determining in which group, caseous vaccine or B C G, the immunity persisted longer

Six rabbits remained in Groups B (caseous vac-

TABLE 4 —DETERMINATION OF PERSISTENCE OF IMMUNITY

	No Tuberculosis	Minimal Tuberculosis	Advanced Tuberculosis
Group B—6 rabbits (Caseous vaccine)	1 (16 66%)	5 (83 33%)	0
Group D—6 rabbits (B C G vaccine)	3 (50%)	2 (33 33%)	1 (16 66%)
Group C—5 rabbits (Controls unvaccinated)	1 (20%)	0	4 (80%)

cine) and D (B C G), and five remained in Group C (controls) These three groups were reinfected with 25,000 bovine B_1 organisms in the left groin subcutaneously, 464 days after the first virulent infection

One year later the experiment was terminated by killing all the surviving animals The findings are shown in Table 4.

Group B (caseous vaccine) gave 16 66 per cent no tuberculosis, 83 33 per cent minimal tuberculosis, and no advanced tuberculosis

Group D (B C G vaccine) gave 50 per cent no tuberculosis, 33 33 per cent minimal tuberculosis, and 16 66 per cent advanced tuberculosis

Group C (controls, unvaccinated) gave 20 per cent no tuberculosis, no minimal tuberculosis, and 80 per cent advanced tuberculosis

The advanced tuberculosis in the lungs of the controls, Group C, consisted of many large caseous tubercles throughout the lungs Here again we see the protective value of caseous vaccine and B C G

Combining the two parts of this experiment we see that the extent of the disease in the rabbits in each group was as shown in Table 5

in the inguinal glands of two animals Inoculati of guinea pigs with material from these glands fail to produce tuberculosis Seven rabbits were e tirely free of infection The abscesses which d veloped in the groins of these two rabbits were d to the repeated large numbers of B C G organis which were injected B C G does not produ tuberculosis in rabbits

EXPERIMENT 7

In this experiment 85 guinea pigs of approximat the same weight were used, and were divided into t following groups

Group A—20 animals treated with sterilized po dered caseous gland emulsion—six subcutaneous jections into the groins at intervals of ten days o a period of 46 days with a total of 27 mg

Group B—20 animals treated with sterilized t not powdered caseous lung suspension—six sub taneous injections into the groins at intervals of t days over a period of 46 days with a total of 27 m

Group C—20 animals—treated with five inocu

TABLE 5 —TOTAL RESULTS

	No Tuberculosis	Minimal Tuberculosis	Advanced Tuberculosis
Group B—13 rabbits (Caseous vaccine)	7 (53 84%)	6 (46 15%)	0
Group D—14 rabbits (B C G)	9 (64 28%)	4 (28 57%)	1 (7 14%)
Group C—14 rabbits (Controls unvaccinated)	1 (7 14%)	3 (21 42%)	9 (64 28%)

Group B (caseous vaccine) gave 53 84 per cent no tuberculosis, 46 15 minimal tuberculosis, and no advanced tuberculosis

Group D (B C G vaccine) gave 64 28 per cent no tuberculosis, 28 57 per cent minimal tuberculosis, and 7 14 per cent advanced tuberculosis

Group C (controls, unvaccinated) gave 7 14 per cent no tuberculosis, 21 42 per cent minimal tuberculosis, and 64 28 per cent advanced tuberculosis

PART III

Group E of Experiment 6 was composed of nine rabbits immunized with B C G vaccine at the same time as Group D (B C G), to determine whether B C G would produce disease in rabbits They received four inoculations of B C G at intervals of ten to eleven days with a total of 16 mg They were not infected with living virulent tubercle bacilli

One rabbit died of an intestinal disorder 195 days after the first inoculation with B C G There was no evidence of tuberculosis anywhere in the animal Two of the rabbits died at 165 and 237 days after B C G inoculation They died as a result of fighting with two other rabbits and failed to show evidence of tuberculosis Another rabbit died of pneumonia at 427 days and showed no tuberculosis Another rabbit died of a generalized skin suppuration at 693 days with no tuberculosis Another animal died at 848 days of pneumonia with no tuberculosis. Three rabbits were killed to end the experiment at 892 days after first B C G infection They had no tuberculosis

Although the organs of every rabbit were examined both macroscopically and microscopically, the only evidence of a B C G infection was a focus

tions of B C G subcutaneously in groins at interv of ten days over a period of 39 days with a total 8 mg

Group D—20 animals—untreated controls

Group E—five animals treated with B C G alc —five inoculations subcutaneously in groins at int vals of ten days over a period of 39 days with total of 8 mg

The experiment was divided into three parts the purpose of determining the following (1) test these caseous vaccines and B C G against a ve large infecting dose of living virulent human tuber bacilli, (2) to see if a vaccine made from a co tuberculous gland was more potent than a vacci from a cow's tuberculous lung, and (3) to t whether B C G would infect guinea pigs

PART I

In this as in other similar experiments, it w found that when a very large infecting dose of li ing virulent tubercle bacilli was given to guinea pi previously vaccinated with Koch's bacillen emulsi or our caseous vaccine, no protection was obtaine In fact this large infecting dose overwhelmed the pr tection, and the vaccinated animals lived no long and sometimes shorter, than the unvaccinated co trols In contrast, the animals vaccinated wi B C G revealed an astonishing degree of protectio not only in their duration of life, but also in th amount of disease exhibited by them

PART II

With the powdered sterilized caseous gland emu sion, the 20 guinea pigs lived a total of 4,559 day with an average duration of 228 days after the viru

TABLE 6.—DURATION OF LIFE OF THE DIFFERENT GROUPS

	Duration of Life (Days)	Average Number of Days	Extent of Disease
Group A—20 Animals (Powdered caseous gland emulsion sterilized)	4 559	228	All had far advanced tuberculosis
Group B—20 Animals (Caseous lung suspension, not powdered but sterilized)	4 649	232	All had far advanced tuberculosis
Group C—13 Animals (B C G)	7 181	552	One pig had minimal tuberculosis two had moderately advanced tuberculosis ten had far advanced.
Group D—20 animals (Unvaccinated controls)	4 979	248	All had far advanced tuberculosis

lent inoculation All animals died from far advanced tuberculosis from 90 to 454 days (Table 6)

With the sterilized caseous lung suspension (not powdered), the 20 guinea pigs lived 4,649 days with an average of 232 days after the virulent inoculation. All animals died from far advanced tuberculosis from 91 to 404 days

With B C G vaccine, 13 guinea pigs lived 7,181 days, with an average of 552 days One pig had minimal tuberculosis, two had moderately advanced tuberculosis, ten had far advanced tuberculosis. These 13 pigs lived from 116 to 1,548 days after the virulent infection The first pig died of paralysis of the legs 116 days after virulent infection, the remaining 12 pigs died of tuberculosis Four pigs were killed for sampling at 230 days, and all had minimal tuberculosis, mostly in the lymph nodes

With the unvaccinated controls the 20 guinea pigs lived 4,979 days after the virulent inoculation with an average of 248 days All animals died of far advanced tuberculosis The first pig died at 136 days and the last at 416 days.

This experiment shows the enormous protection which B C G gives over caseous vaccine and controls when a very large infecting dose is used The powdered caseous gland emulsion and the caseous lung suspension (not powdered) gave about the same protection, and both vaccines lost their vaccinating properties by the overwhelming infection doses

Two hundred thirty days after receiving the virulent inoculation, four pigs of Group C (B C G) were killed for sampling All four animals had minimal tuberculosis Four animals of Group A (caseous gland emulsion) died about this time (from 214 to 242 days), and all had far advanced tuberculosis Four animals of Group B (caseous lung suspension) died from 214 to 251 days, and all had far advanced tuberculosis Four animals of Group D (unvaccinated controls) died from 219 to 231 days, and all had far advanced tuberculosis

Table 7 also shows the enormous protection which B C G produces over caseous vaccines and the controls.

Postmortem examinations were made on every guinea pig that died The organs of the animals of Groups A, B, and D showed the same amount of tuberculosis The organs of Group C (B C G) showed very much less disease, although when the disease was extensive, it was sufficient in amount to classify the animal as far advanced. In one of the B C G animals the disease was confined to the lymphatic glands

PART III

Group E of this experiment consisted of five guinea pigs inoculated with B C G at intervals of ten days from August 2, 1938, to September 10, 1938 A total of 8 mg was given

All the pigs which were vaccinated with B C G gave a positive tuberculin reaction These animals died from some extraneous cause or were killed from 388 to 2,097 days after receiving their first dose of B C G They were examined macroscopically and microscopically, and no organ tuberculosis was found The infection did not extend beyond the regional lymph glands It is thus seen that B C G does not infect guinea pigs

We believe that the B C G culture is safe to use on the human subject, and in our experience the culture has remained stable

E L Trudeau believed that there was considerable value in Robert Koch's and other tuberculins but became convinced that the living attenuated tubercle bacillus was necessary to give the greatest amount of immunity, Calmette believed also that it was necessary to have an attenuated living tubercle bacillus for this purpose, and he, therefore, developed his B C G

It is our belief also that the living attenuated tubercle bacillus is necessary to give decided immunity, and it is also our belief that the killed tubercle bacillus will not give such immunity as does the living attenuated germ. In the process of killing the germ, probably the most important substance of the germ is destroyed by heat.

Our caseous vaccine was prepared from a virulent killed bovine tubercle bacillus B C G was prepared from an attenuated living bovine bacillus We have shown how very greatly superior B C G is over our caseous vaccine with a large infecting dose, and we attribute this to the substance B C G is con-

TABLE 7.—EXTENT OF DISEASE AFTER APPROXIMATELY 230 DAYS

	Duration of Life	Extent of Disease
Group A—4 pigs (Caseous gland emulsion)	230 days approximately—died	Far advanced tuberculosis
Group B—4 pigs (Caseous lung suspension)	230 days approximately—died	Far advanced tuberculosis
Group C—4 pigs (B.C.G.)	230 days sacrificed	Minimal tuberculosis
Group D—4 pigs (Unvaccinated controls)	230 days approximately—died	Far advanced tuberculosis

TABLE 8.—Analysis of Bovine Lymph Glands—Normal and Caseous

Tissue	Alcohol Ether Soluble Substances: Water Content (% of Moist Weight)	Total Lipins (% of Dry Weight)	Cholesterol (% of Total Lipins)	Lecithin (% of Total Lipins)	Iodine (Number after Acid Precipitation)	Water Insoluble Residue from Alcohol Ether: Water Insoluble (% of Dry Weight)	Total Nitrogen (%)	Total Phosphorous (%)	Phosphoprotein (% of Protein)	Calcium (% of Ash)	Ash (% of Water Insoluble)
Normal bovine peribronchial and mesenteric glands	81 5	24 4	6 51	32 27	32 2	68 73	15 88	0 85	0 16	1 78	10 47
Caseous material from lymph glands semifluid mass no macroscopic evidence of calcification	75 16	19 49	26 58	12 10	51 2	78 22	10 64	5 07	2 04	32 68	41 13

stantly giving to the organism This most valuable substance is lacking in caseous vaccine When the infecting dose of living virulent tubercle bacilli was not large, our caseous vaccine seemed to be equal to B C G, but when there was a large infecting dose, our caseous vaccine guinea pigs showed no protection whatever and, in fact, lived for a shorter time than the controls The B C G pigs, however, showed very great immunity, not only in duration of life but in extent of disease

Use of Caseous Vaccine and Bacillen Emulsion on the Human

We have used both caseous vaccine and Koch's bacillen emulsion on a large number of patients suffering from pulmonary tuberculosis All had far advanced pulmonary phthisis and were not suitable for any other method of treatment While some excellent results were obtained on a few patients, many failed to show clinical improvement These killed vaccines will not cure tuberculosis when the disease is far advanced Yet we believe they have their place in treatment For instance, with patients that have relapsed, these vaccines are well worth using for possible protection against another relapse We have frequently seen fever of a moderate degree, between 99 and 100 F, disappear Intoxication is very decidedly lessened, and patients regain strength However, tubercle bacilli do not seem to disappear from the sputum Experimental evidence presented by us supports the efficiency of our caseous vaccine when the infecting dose of virulent tubercle bacilli is not too large It is possible that when the pulmonary tuberculosis in the human is not extensive, and when the general condition is good, caseous vaccine may be of decided benefit

Caldwell has analyzed normal and caseous bovine mesenteric and peribronchial lymph glands [5] His findings are given in Table 8 One of the outstanding differences between normal and caseous glands is the high cholesterol content of the caseous material Shope has used cholesterol as a therapeutic agent in experimental tuberculosis [6]

We wish to thank Dr Arthur Vorwald director of Trudeau Foundation, Saranac Lake for assisting us in the execution of this study

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RESEARCHERS CONDEMN USE OF HORMONES AS BEAUTY TREATMENT

Treatment with hormones is not the answer to the problem of unwanted hair, a group of Duke University researchers found The researchers—Drs J Lamar Callaway, James T Wortham, and E C Hamblen, and A A Salmon, B S, of Durham, North Carolina, report their findings in the October issue of *Archives of Dermatology and Syphilology*

Women who come to doctors seeking such a treatment should realize that unneeded hormones not only may fail to relieve the condition but also may bring about significant alterations in ovarian function, the article indicates The only recommendation the doctor can give at present to women with unwanted hair not caused by specific disease, such as a tumor, is to stop overemphasizing the condition or use bleaching or safe methods of hair removal

TRENDS AFFECTING THE WELFARE OF RADIOLOGY

RAMSAY SPILLMAN, M D , New York City

I HAVE seen dissension in my own county society as to what constitutes the welfare of medicine, so I feel that I should define what I mean by the welfare of radiology By this I mean its maintenance at a level where it can live up to its responsibility in the grand pattern of medicine That means it must be able to attract young medical men as able as those who go into other branches

The long course of preparation for admission to medical schools today, the length of the curriculum itself, the basic internship, and the long period of preparation for the Boards should be a deterrent to any whose primary interest in medicine is financial But, by the same token, a candidate who has complied with all these exacting requirements should have earned at least a decent standard of living A specialty that cannot provide that and that cannot provide a professional prestige equal to that of any other branch will not attract as good candidates as it needs

I have seen five generations of radiologists and have known personally many individuals in each With very few exceptions, those of the first generation are dead, and dead before their time, of x-ray injuries From their experience we have learned how to survive

Those of the second generation are the elders of today I belong to the third generation, many of whom were once the assistants of the second We learned the craft by the preceptor system And now there is a fourth generation, and a fifth, that looks on me as a chronologic elder and shows me respect at the meetings and embarrasses me by calling me "sir"

The fourth generation has obtained its toehold, even though a precarious one I am a bit worried about the fifth generation They were in their residencies when they had to go into the armed forces They served, and served well, as did the fourth generation and some of the third But they never got a chance to try their wings on their own And what worries me is whether they ever will They are out of the service, and some of them have the diploma of the Board And where can they work? Gold or even silver leaves do not seem to be an inducement for them to stay in the Army or Navy in any numbers Some of them are working for the Veterans Administration, some of them are happy there and some otherwise

If life had gone on as it was going when I began in radiology in 1922, we of the third generation older now than the second generation were when they took us on as assistants, would be making places in our offices for more of these promising youngsters than we are Speaking for myself, I have not raised my fees in proportion to my increased costs, and, by the time I have paid my operating expenses and paid for my pro rate share of the kerosene to pour over the potatoes to destroy them, I don't have enough left to afford an assistant And, as my situation is not entirely unique, there are fewer assistantships for the fifth generation than there are candidates

If the applicant cannot get into an office that is a going concern, I don't see how he can expect, at present prices and present taxes, to equip an office and pay for it out of earnings, even if he begins as small as I did in 1928 No, not even if he shares it with several others So, unless the young radiologist has sources of income from his family, or from some other family, be it his wife's or some well-disposed relative or friend, an office of his own seems a very remote possibility

I know some men who are happy in their positions with the Veterans Administration I know others who are not, and who are either getting out or wishing they could get out And this despite the fact that they know they will have to be doing very, very well on the outside to make a net income equal to the salary they are leaving behind

By the simplest of arithmetic, then, the largest market existing for the talents of these aspirants is the hospitals The immediate past president of the State Society, Dr Leo F Simpson, has remarked, "The specialist, dependent as he is on the hospital to function, and lacking maneuverability to live under adverse economic conditions, could easily become the employe of the hospital trustees "[1] It is a very natural human desire, to be paid more if one works harder The straight salary hospital job is not the ideal situation A percentage of the gross receipts is more desirable But even a percentage of the gross receipts is subject to one consideration, namely More and more x-ray work in hospitals is being done on patients of the Associated Hospital Service or the Blue Cross, whichever name you prefer You know, and I know, that it is counter to the professed object of the Blue Cross

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to put people in hospitals simply to get a diagnostic work-up, but you know and I know that it goes on Whether the radiologist is on a straight salary or on a percentage of the gross revenue of the department, this Blue Cross work brings him no revenue for his effort, because the Blue Cross pays the hospital a certain sum (I believe in some cases $16 a day), and to the best of my knowledge none of that money is allocated to the visible revenue of the x-ray department A hospital cannot maintain a patient and do a gastrointestinal examination on him, too, for any $16, and the result is that the hospital gives to the patient what the Blue Cross is not paying for, and then goes to the public with its hat in its hand, begging to make up its deficit On the morning of the day this was written, the newspapers carried a story that 423 voluntary hospitals were campaigning for eight million dollars to meet their operating expenses And a few weeks before that, a man very high in hospital councils in New York announced that the government was going to have to lend a hand in operating the voluntary hospitals He stated further that asking for government help was not the same as asking for government control I have my doubts about that The Blue Cross is not coming begging to the public You and I should have such a surplus as the Blue Cross has But some of that surplus is built from my time, and yours, and from the margin of safety that stands between me and leukemia, and between you and leukemia

Is this evidence that hospitals in general are operating on sound economic principles? When fewer and fewer opportunities outside of hospital practice are open to the rising generation of radiologists, can they be pardoned a bit of apprehension as to how firm the foundation? With a government committed to raising taxes even above present levels, for the stated purpose of reducing the money they will have left to buy things and thus ward off inflation, are people to have enough money left over, that is not spoken for, to make up the deficits of the volunteer hospitals?

During the recent war, a very likeable woman came into my office and identified herself as a lifetime social worker, engaged in a survey for the Bureau of Social Security to determine what the costs of x-ray examinations were in hospitals and in offices She was one of an earnest group of Federal social workers who were confident that the Wagner-Murray-Dingell Bill was about to cure all the ills of patients and doctors alike, medical and financial, and they wanted to know what it cost to do x-ray work, so they would know how much to let us charge I felt that if these people did get the upper hand over us we would be in a better position if they knew what the facts were I was in on the final conference, and so were several other New York men. It was a sincere study, based on a desire to ascertain fact. But I hope that I shall not be doing radiology when I have to use this or that number of films on a gastrointestinal study, even if the directive is based on the findings of this survey Some of this committee were impressed that the x ray machine is not used all day long continuously Well, even a radiologist likes to get out of the fluoroscopic room once in a while

Even though my own machine has intervals when the tube can cool off, I could not increase materially the volume of work my office turns out, even though the government should pay for it. And even if all the qualified younger radiologists were given facilities and subsidies, I do not believe that the proposed extension of benefits could be carried out on any such scale as the proponents of socialized medicine intend

Paradoxically enough, at the same time that enormously increased demand is made for x ray services, regardless of how paid for, the very improvement in diagnostic capacity of radiology is reducing the number of cases any given installation can turn out Two prominent workers, Swenson in Philadelphia and Coe in Washington, have shown recently how, by taking enough pains, they can show small polyps in the colon, many of which, although they look innocent enough, represent full-fledged but as yet nonmetastasized carcinomas * And when Coe brought out that it was sometimes necessary to examine these colons up to four times, I marvel at the lack of understanding in a fee schedule promulgated by a very large life insurance company, containing a line, "Abdomen (intestines, colon, rectum, kidney, etc) maximum payment, $10 " This may be a well-meant attempt to stave off state medicine by underwriting a part of the necessary fee for an x-ray examination, but I cannot be budged from the opinion that a $10 examination of the colon cannot reveal any but a gross average of pathology, speaking by and large, and that an insurance company is not rendering a public service by underwriting it I was told that if the premium were high enough to underwrite what certain radiologists feel is a competent standard of work, the cost would be prohibitive

The situation simply illustrates that the costs of satisfactory work cannot be pulled out of a hat *Dr Simpson states, "Compulsory health insurance involves compulsion, bureaucratic administration, and diminished quality of service to patients who need it due to the impossible demands of those who do not "*[2] You need look no

* Since this paper was read a group from Temple Texas won the gold medal of the American Medical Association at the 1949 meeting in Atlantic City with an exhibit which expands on this thesis —*R. S*

farther than England to see the truth of that statement There would be clearer thinking on how to get the maximum benefit from medicine if economists could grasp what any freshman in physics knows, that there is a law of conservation of energy and that neither wealth nor matter can be created out of nothing But, for many years past now, the more firmly an economist believed that it could, the higher he has been apt to be in the councils of the government

Two trends that affect radiology adversely today, as I see them, are first, passing the diagnostic buck to the x-ray at the very outset Among the internists who send work to me, there are some to whom it is very seldom I tell anything that they had not predicted in advance from a careful history and physical examination, plus a high degree of clinical intuition, which is just another name for using reasoning power The second trend is the ill-advised attempt to make x-ray available to everybody, in the face of Dr Simpson's well-worded warning of diminished quality of service to patients who need it due to the impossible demands of those who do not

Do I sound pessimistic? If so, let me leave you a final word of cheer, derived from a small book by a very wise ethnologist, Dr W M Flinders Petrie [3] He is probably the foremost student of the phenomenon that we call civilization He finds that a civilization, just like an individual, does not go on forever It is born, it grows, it matures, it becomes senile, and it dies He finds that we are in the eighth civilization of which history has a record, and that we are in the terminal stage Seven times before, the concentration of great wealth has ushered in the last stage before dissolution I find no evidence in his study that the destruction of wealth will restore a dying civilization In a normal culture, the amount of government bears a reasonable proportion to what else goes on I can see in the present expansion of governmental activities a definite parallel to a malignant tumor, and I firmly believe that the tumor will eventually kill its host

I think you will find food for thought in these few concluding words from Flinders Petrie

> At every invasion by a new people, which, as we have seen, is the necessary foundation of a new period of civilization, there must be strong personal rule The holding together of the invaders, the decisive subjection of the invaded, the strife of the fusion of peoples, all require an autocracy of greater or less scope This period lasts during four to six centuries
>
> The next stage is an oligarchy, when leadership is still essential, but the unity of the country can be maintained by law instead of autocracy This stage varies in length, in Greece and Rome it was about four centuries, in Medieval Europe about five or six centuries
>
> Then gradually the transformation to a democracy takes place, beginning about the great phase of literature in Greece, Rome, and modern Europe During this time—about four centuries—wealth—that is, the accumulated capital of facilities—continues to increase The accumulation of the facilities of life, or capital in every form, diminishes the need for striving There is so much the less worth striving for, there is so much more to enjoy without strife Hence, the easier life is rendered, the more easy is decay and degradation The maximum of wealth must inevitably lead to the downfall When democracy has attained full power, the majority without capital necessarily eat up the capital of the minority, and the civilization steadily decays, until the inferior population is swept away to make room for a fitter people

I call these considerations to your attention because I can recognize in the description of the scenery some landmarks on the road we are now traveling

References

1 Simpson, Leo F NEW YORK STATE J MED 49 739 (Apr 1) 1949
2 *Ibid* 49 773 (April 1) 1949
3 Petrie W M Flinders The Revolutions of Civilization London and New York Harper Brothers 1911 p 123

HOPE FOR THE COCKTAIL IMBIBER

An interesting observation was presented by Dr Ross Golden at a recent Graduate Fortnight meeting of the New York Academy of Medicine, demonstrating the desirability of employing x-ray examinations of the gastrointestinal tract to aid in diagnosing allergy, amebiasis of the cecum, nutritional disorders, etc He quoted an example of a man greatly distressed because upper abdominal pains followed soon after taking a cocktail After preliminary x-ray examination showed the stomach functioning normally, he took a "barium scotch highball" Within a few minutes peristalsis ceased, and the antrum became spastic, suggesting the possibility of an allergic reaction to alcohol He was given a capsule containing antihistamine drugs and, if taken a half hour before imbibing the beverage, no discomfort resulted Thus, concludes Dr Golden, science can aid suffering humanity!

X-RAY STUDIES OF THE DISARTICULATED SKULL*

LEWIS E ETTER, M D , Pittsburgh, Pennsylvania

(*From the Western Psychiatric Institute and Clinic, University of Pittsburgh Medical Center, Pittsburgh*)

ROENTGENOGRAMS of the head present a confusing labyrinth of superimposed lines and shadows In order to separate these from one another and discover the exact details contributed by the various component bones, disarticulation of the dried skull was undertaken This dissection was accomplished by use of fine dental drills applied along the suture lines where necessary Then, by filming each component bone, at first separately in the various standard projections and next with it replaced in the skull, it became possible to correlate features found in the detailed analysis of the isolated bone with contiguous structures Now, if a film was made of the skull with the bone under study removed, the details of other related structures became more readily apparent It was possible then to see exactly how far a given line or anatomic structure extended and where it joined with a neighboring part In order to clear up any question regarding location of anatomic landmarks as shown on the films, small strips of lead were used to accentuate doubtful elements

It was found most instructive to deal only with the components of a single bone in relation to its neighbors at one time For example, the frontal bone enters into many of the standard projections of the skull If the whole dried skull was filmed it was difficult to say exactly where the frontal bone components ended and other bone structures commenced But if it was removed and films made of it separately, of the skull with it missing and then replaced, the exact anatomic features could be picked out and labeled By comparing the roentgenograms of the living skull in the same position it then was possible to label exactly the features of the frontal bone and not be confused with neighboring structures

Since the primary purpose of this study was to produce films for demonstration and classroom instruction, a matter of practical importance with reference to labeling presented itself All of the films of the bones prepared as above outlined had black opaque backgrounds surrounding the negative roentgen image If it was desired to preserve this appearance of the bone and not reverse the blacks and whites on the film it became necessary to get rid of the background The simple expedient of cutting out the roentgen image from the black film was developed, and the resulting silhouette glued to a sheet of cleared film gave ample room for lettering all the anatomic details Mounts prepared in this way were then placed between pieces of plexiglass and bound with tape, thus making a permanent teaching or exhibit collection Prints or projection slides can also be made from the original lettered and mounted silhouettes In addition to being used for the individual cranial bone study, this system is equally of use for mounting and labeling silhouettes of the whole dried skull or the roentgenograms of the living subject

A study of the sphenoid bone by the method described has been most illuminating As an example, the appearance of this keystone structure in the skull in the AP occipital, or Towne position is very instructive A photograph of the anterior inferior aspect of the disarticulated sphenoid is shown in Fig 1 Several of the anatomic landmarks are labeled, and particular attention is directed to the small triangular sphenomaxillary surface seen projecting downward as an inverted pyramid below the orbital surface of the greater wing This surface looks into the sphenomaxillary fossa, and its upper margin forms the posterior border of the inferior orbital or sphenomaxillary fissure It is of particular importance in the Towne projection because it is a prominent feature in the roentgenogram lying medially and below the mastoid

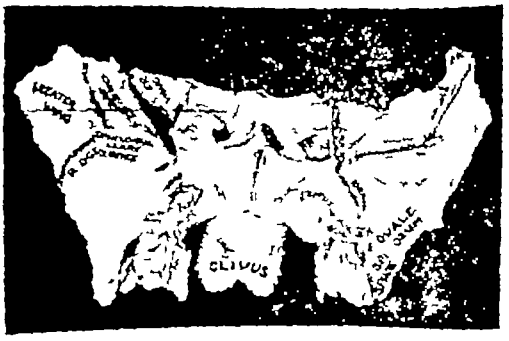


FIG 1 Photograph of the disarticulated sphenoid bone showing anterior-inferior aspect Note particularly the triangular sphenomaxillary surfaces

Presented, by invitation, at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo, Section on Radiology, May 6 1949

* A scientific exhibit New Method for Roentgen Anatomic Study of the Skull was shown in connection with this paper and given Honorable Mention in Scientific Research

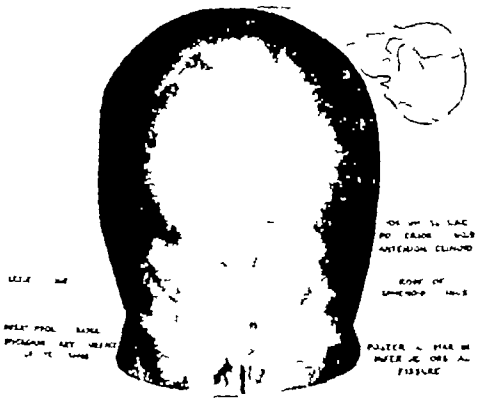


FIG 2 Occipital view—sphenoid components

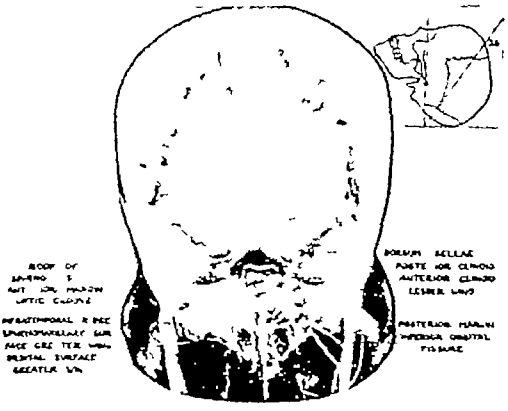


FIG 4 Sphenoid components—occipital view

tip for which it has been sometimes mistaken (Fig 2)

In Fig 3 a roentgenogram of the isolated sphenoid bone is seen, made with it in the same position it occupied in the skull when oriented for the AP 35 degrees toward the feet projection It will be seen that the sphenomaxillary surface is a prominent feature The relative positions of the anterior clinoid processes and the dorsum sellae are clearly delineated with lead markers as are also the orbital surfaces of the greater wings and the posterior margin of the inferior orbital fissure

If a film is then made of the dry skull with the sphenoid bone replaced, the exact details contributed by the sphenoid can be seen clearly by comparing the features with those demonstrated in the isolated bone (Fig 4) As described above, the sphenomaxillary surface is seen to be a prominent feature of this projection Its relation to the tip of the mastoid process and to the inferior orbital fissure is definitely proved To demonstrate the relation of the above structures to others in juxtaposition, a film of the skull with the sphenoid removed is seen in Fig 5 Here we can identify lines produced by the frontal, ethmoid, maxillary, mandible, occipital, and temporal bones, all having been previously identified by the same processes of analysis and synthesis Finally, it is a comparatively simple matter to study the view of the living skull in the same projection and pick out the features now certainly identified as belonging to the sphenoid

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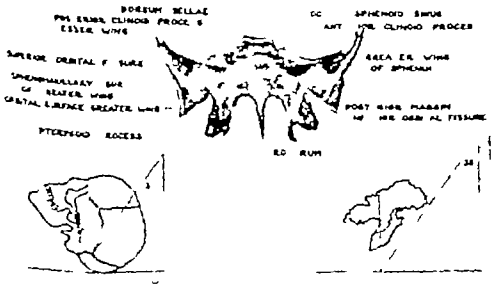


FIG 3 Sphenoid disarticulated—occipital view

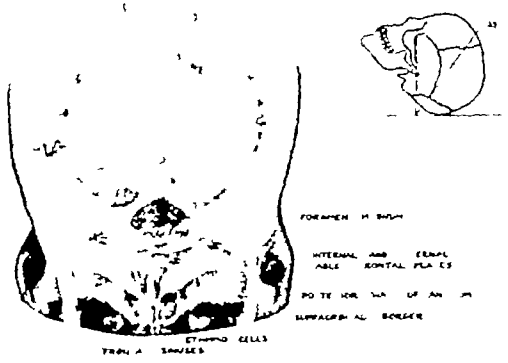


FIG 5 Occipital view—sphenoid removed.

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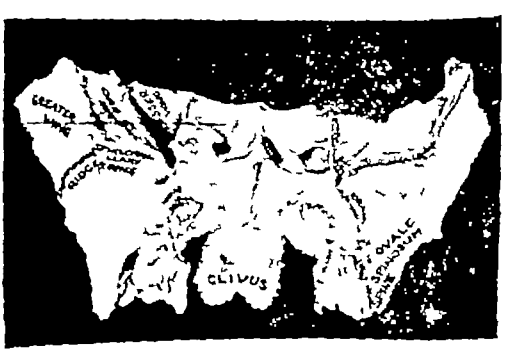


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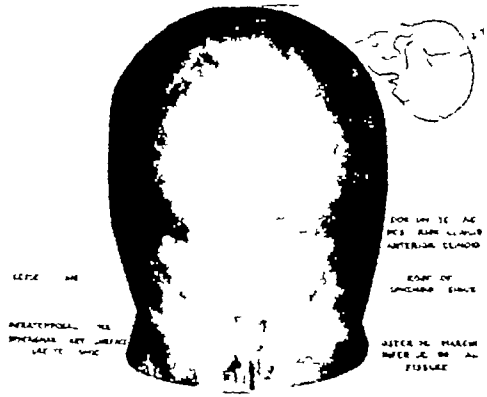


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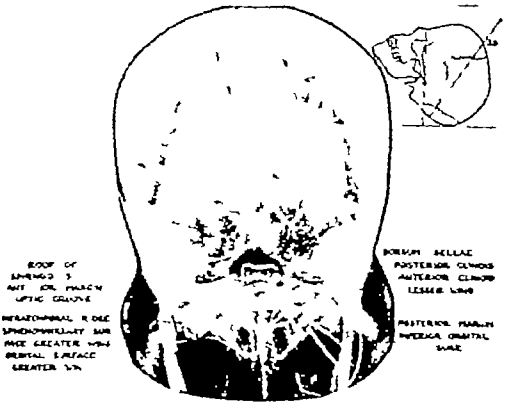


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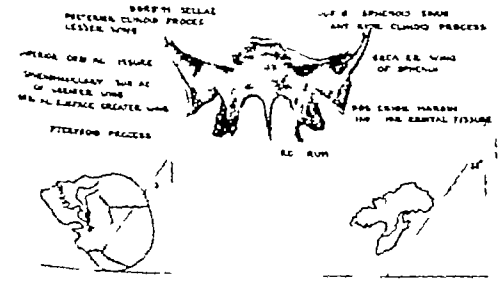


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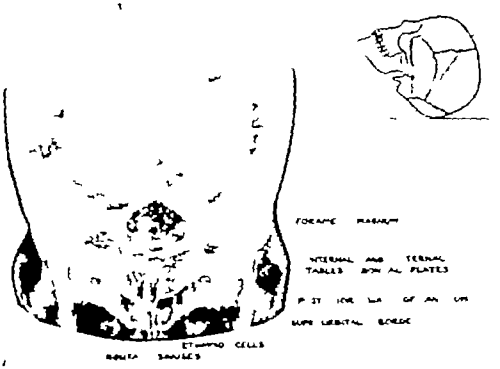


FIG 5 Occipital view—sphenoid removed.

roentgenograms were made of the skull with the bone in question removed Another exposure was made with the bone replaced In this way the exact features contributed to the roentgen image of the skull of the living subject by each bone were delineated and correlated

Discussion

George H Ramsey, M.D , *Rochester* —The roentgen examination of the skull and its contents has become an established procedure because of the direct visual evidence it adds to the clinical findings. If we are to give accurate interpretations, we must be familiar with the normal in the various projections

Dr Etter, in his radiologic dissection, has clearly and accurately labeled the lines and shadows contributed by each component of the skull. This method is both painstaking and time-consuming, but I am sure his effort is well repaid by the results

This research is being aided by a grant from the Sarah Mallon Scaife Foundation of Pittsburgh.

AMERICAN MEN MARRY

More American men are married, maintaining a home, and raising a family—and, what's more, apparently liking it—than ever before in the history of the country This is based upon a study of the American husband by the statisticians of the Metropolitan Life Insurance Company, who bring attention to the impressive fact that there are now about 35½ million married men in the United States, and that 34½ million of them are living with their wives.

Even the small proportion—approximately three per cent—living apart includes those men who are employed away from home or are temporarily absent for reasons other than marital discord, the statisticians note The otherwise happy situation is clouded somewhat by the fact that, because of the housing shortage, about 2½ million married couples are living with relatives or in other temporary quarters, such as transient hotels and lodging houses

Nearly one third of the husbands are under thirty-five years of age, and about one quarter are past fifty-five Of those at ages thirty-five to fifty four, 98 per cent are gainfully employed, or seeking employment, as a means of meeting their family responsibilities

Although the proportion of wives who work is greater than ever before, less than one fourth of all wives work outside the home, and these are mostly the younger ones who have been married only a short time

More than nine out of every ten young men in this country eventually marry All in all, American men look with great favor on traditional family life. They make a home, raise a family, provide for current needs, and save for their old age and for such contingencies as prolonged sickness and premature death.

A M A. SURVEYS BLOOD BANK RESOURCES

The American Medical Association is conducting a nation-wide survey of blood bank resources.

Under the direction of a special committee established by the A.M.A House of Delegates, the A.M A. Bureau of Medical Economic Research has just completed mailing questionnaires to more than 1,500 blood banks and 5,100 hospitals which have no blood banks The questionnaires are the first step in determining the capacity, equipment, personnel, inventory, general processing procedures, and arrangements for emergency cooperation among blood banks

The committee is headed by Dr Leonard W Larson of Bismarck, North Dakota Other members of the committee are Drs. William A. Coventry of Duluth, Minnesota, James Q Graves of Monroe, Louisiana, John W Green of Vallejo, California, Herbert P Ramsey of Washington, D C James R. Reuling of Bayside, New York, Deering G Smith of Nashua, New Hampshire, James Stevenson of Tulsa, Oklahoma, William D Stovall of Madison, Wisconsin, and Ernest B Howard of Chicago, assistant general manager of the A.M.A.

Organizations cooperating with the A.M A. in the survey are the American Association of Blood Banks, the American College of Surgeons, the American Hospital Association, the American Society of Clinical Pathologists, the Catholic Hospital Association, the College of American Pathologists, and the National Research Council.

THE PEPTIC ULCER PROBLEM

ALBERT F R ANDRESEN, M D , Brooklyn, New York

(From the Department of Clinical Medicine, Long Island College of Medicine, and the Long Island College Hospital)

ANYONE reading the literature on peptic ulcer must be amazed at the many different opinions expressed regarding etiology, pathogenesis, symptoms, and treatment of this common disease Patients who have made the rounds of internists, surgeons, psychiatrists, and cultists frequently ask me how there can be so much confusion in the ranks, and some of the more intelligent ones have expressed the opinion that the treatment of ulcer has become almost a "racket" Much of the confusion has been caused by ill-conceived and uncorrelated research by investigators unfamiliar with the clinical aspects of the disease The American Gastroenterological Association through its National Committee for the Study of Peptic Ulcer has made a careful study of the work that has been done and is attempting to promote a planned program of future study The United States Public Health Service has allotted $100,000 for subsidizing research in peptic ulcer under the guidance of the Committee, and it is to be expected that some constructive and authoritative reports will emanate from this source Meanwhile, an evaluation of the problem would seem to be in order

One fact in regard to the ulcer problem that stands out prominently is that no matter what type of treatment has been used, the reports show that ulcers have healed, as demonstrated by x ray and clinical findings before and after treatment Whether the patient has been treated by antacid, hormonal, or endocrine therapy, whether he has been fed through mouth or nose, into the stomach or duodenum or even through the veins or rectum, whether the foods have consisted mainly of carbohydrates, fats, proteins, or amino acids, whether psychotherapy, physiotherapy, or radiotherapy have been applied, and whether any one of the various operations, ranging from simple gastroenterostomy, pylorectomy, or gastrectomy to that "psychosomatic operation" of vagotomy, have been performed, the reported results have all been approximately the same The old familiar statistical studies, so notoriously inaccurate when applied to clinical reports in general, have been used to show the value of each of these methods of treatment Looking at the whole picture, any rational, unbiased person could come to only one conclusion—that uncomplicated ulcers must heal spontaneously and that the variation in healing time by different methods of treatment must be due to the fact that some treatments interfere with healing more than others

That uncomplicated ulcers heal spontaneously has been amply demonstrated in the past The most important point in the typical history of ulcer is so-called "chronicity and periodicity," by which is meant the occurrence, over a long period, of recurrent attacks of ulcer symptoms (hunger pain relieved by food) with often long intervals of entire freedom from symptoms, whether the patient has been treated or not During the intervals between typical attacks demonstrated to be due to ulcers, x-rays and even operations have disclosed either that no ulcer was demonstrable or, at times, that scars of healed ulcers were present Recurrent ulcers may be found at different points in stomach and duodenum in different attacks Lewis Gregory Cole, twenty-five years ago, at first by frequent serial roentgen studies and later by detailed pathologic research, demonstrated the rapid and complete healing of uncomplicated gastric ulcer [1] Later studies have shown that uncomplicated duodenal ulcers will also heal completely, although at times leaving deformities from scarring

Etiology and Pathology

Practically all treatments of ulcers have been based on the theory that ulcers are caused by erosion of the mucosa by acid gastric juice This theory has been based on the fact that excess secretion of hydrochloric acid has usually been found in the stomachs of patients with ulcer, ignoring the fact that some ulcers, especially those in the stomach, are found in the presence of an achlorhydria The fact that ulcers heal spontaneously or even where dilute hydrochloric acid has been given due to a mistake in diagnosis has been ignored In general, the increased acid secretion can be explained on the basis of irritation of the gastric mucosa caused by the presence of ulcer, and the spontaneous healing of the ulcer in the presence of the increased acidity could be attributed to the cleaning out of the base of the ulcer by the acid, promoting the healing process The increased acid secretion could thus be ex-

Presented at the 42nd Annual Meeting of the Fourth District Branch of the Medical Society of the State of New York, September 24, 1948.

plained as a protective reaction to the presence of the ulcer much more rationally than that it is a destructive agent

It is known that normal gastric mucosa is protected from digestion by gastric juice, so that it is necessary to presuppose damage or actual death of a localized area of mucosa before the juice could digest it out and produce an ulcer Cole, in his carefully checked pathologic researches, demonstrated conclusively that ulcers do not originate in the mucosa but, like boils and carbuncles, originate as necrotic areas in the deeper layers of the stomach wall, later breaking through the mucosa, the size of the resulting ulcers depending upon the depth and extent of the necrotic area [1] Large necrotic areas, such as those occurring along the lesser curvature of the stomach with its loose alveolar tissue, will produce the large ulcers seen there, whereas small ulcers are found in the prepyloric and duodenal regions When the necrotic areas are deep and occur in regions where the wall is thin and the lumen small, particularly in the duodenum, the breaking through may occur in both directions, through mucosa and serosa at the same time, producing perforation When a vessel happens to lie in the sloughed area, it may slough out or may be eroded by the gastric juice when it digests out the necrotic area, resulting in hemorrhage The extent of the induration occurring about an ulcer and the degree of accompanying peritoneal reaction is dependent upon the size and particularly upon the depth of the ulcer Stenosis resulting from cicatricial contractions after healing occurs mostly at the narrow pylorus and is much rarer than that resulting from perigastric and periduodenal adhesions caused by perforations, especially those so-called "slow perforations" into neighboring organs, principally the head of the pancreas, or such perforations covered by omentum

The reason for the occurrence of the necrotic areas constitutes the most important causative factor in the production of ulcer This fact has gradually come to be recognized, and many explanations have been advanced The fact that ulcers occur along the lesser curvature and the duodenum can be explained by the fact that there is an endartery circulation in this region That some ulcers occur as a result of obliteration of these endarteries as a result of arteriosclerosis, obliterating endarteritis, periarteritis nodosum, and embolism is undoubtedly true, but these are rare causes, as is syphilis That vasospasm resulting from psychic causes could proceed to actual death of tissue seems highly improbable, although the occurrence of ulcer following psychic trauma has been attributed to this cause That body habitus should play a part is incomprehensible and is belied by the fact that ulcer is seen proportionately as often in patients of asthenic as of sthenic habitus Some endocrine disturbances associated with vascular abnormalities could undoubtedly play a part in causing arterial spasm if not obliteration Allergy, which is known to cause sloughing areas elsewhere, as in skin, buccal, and rectal mucosa and conjunctiva, might conceivably be an important factor, but rarely are peptic ulcers directly attributable to allergy to ingested or inhaled substances

In 1912 and 1913 two research workers made contributions of great importance to the etiology of ulcer Rosenow demonstrated the connection between focal infection and ulcer previously suggested by Frank Billings [2] Turck produced typical gastric ulcers in dogs by the intravenous injection of simple extracts of homologous tissue, attributing the resulting necrotic areas in the stomach and elsewhere to absorption of a theoretic substance from dead tissue, which he called "cytost" [3] Later he called attention to the fact that "cytost" was undoubtedly present in small quantities in the necrotic tissue in so-called foci of infection and that the absorption could duplicate his findings after injection of "cytost" in dogs This was further emphasized when it was realized that Rosenow in his animal experiments injected mixtures of the infective material from foci of infection and not pure cultures of bacteria into his animal's veins, so that "cytost" was included The absorption of "cytost" would also explain the Curling ulcer following burns and the ulcers occurring after bad fractures or operations Whether "cytost" is the histamine-like substance which various workers are trying to implicate as the cause or whether the reaction in the mucosa is a so-called autoallergic phenomenon remains to be demonstrated

Thirty-five years of experience in the eradication of all foci of infection in my patients with ulcer has constantly emphasized to me the importance of focal infections in the etiology of ulcer I have never seen an ulcer occur in any case in which such foci could not be demonstrated as a cause, and recurrences, which might be postponed for an indefinite period by thorough eradication of foci, have practically always been found to be due to recurrence of old infections or the development of new ones That some patients tend to develop ulcers rather than other conditions known to be caused by focal infections would point to a constitutional tendency to the development of ulcer, which seems to be hereditary

Diagnosis

The history is the most important single factor in making a diagnosis Typical of peptic

ulcer is the history of "chronicity" and "periodicity," meaning the occurrence of attacks of "indigestion" lasting from a week to a few months with intervals between the attacks during which the patient can eat anything and have no symptoms whatever because then no ulcer is present The typical symptom-complex of hunger pains relieved by taking any kind of food or drink (or antacid) is usually present, being due to excessive gastric hunger contractions of the empty or nearly empty stomach occurring as a result of irritation from the ulcer This pain, usually in the epigastrium, may be reflected upward, downward, to either side or to the back, but at times, especially when the ulcer is complicated by disease in other parts of the gastrointestinal tract, the pain may be located in the gallbladder region, the back (with pancreatic irritation), the appendix region, or over the sigmoid In any case it will occur late after eating (one to three or more hours) and will be relieved by eating The time of occurrence of the hunger pain is independent of the location of the ulcer but is often directly due to the quantity of food ingested, occurring, as would be expected, earlier after small feedings, later after large meals

Another type of pain, due to pylorospasm in the case of an ulcer in close proximity to the pylorus, may occur immediately after or even during eating and is usually accompanied by retrostaltic symptoms such as nausea, belching (aerophagia), sour eructations, regurgitation, or even vomiting These retrostaltic symptoms may occur in any ulcer, regardless of location A third type of pain, due to peritoneal irritation, occasionally occurs in large lesser curvature ulcers when the crater becomes stretched with gastric contents, that is, immediately after filling the stomach, and will last until intragastric tension is relieved, usually one-half to one hour, being succeeded later by the hunger pains Peritoneal pain also occurs in deep duodenal ulcers which are impinging against peritoneum and is of course very severe if the peritoneal coat is perforated Persistent pain, little or not at all relieved by food, usually indicates a complication, such as a walled-off perforation and adhesions to neighboring organs or actual disease in these organs (pancreas, gallbladder, liver, omentum)

A little surface bleeding occurs in all ulcers, but gross hemorrhage is a complication to be discussed later

Roentgen diagnosis is valuable if performed by an expert To make a definite diagnosis of ulcer it is essential to identify a definite niche or crater filled with barium mixture surrounded by a defect due to inflammatory changes, edema, or induration This is only rarely possible on fluoroscopy, even large lesser curvature ulcers being easily overlooked Serial roentgenograms are absolutely necessary and must be taken in different positions, with and without compression, in order to bring out small ulcers Too often a diagnosis of ulcer is made only from the presence of spasm or because a deformity exists in stomach or duodenum At times, a crater not seen in the early films may be well visualized at one or two hours after the barium meal It is important to recognize the difference between the smooth crater of an uncomplicated ulcer and the deeper, often spreading crater or extravasation produced by a walled-off perforated ulcer, usually in the duodenum, which will often retain barium not only for six hours but for a long period of time Films taken at six hours will show whether an obstruction is present In any case a complete roentgen study, with films at twenty-four and forty-eight hours, a barium enema, and a cholecystography is advisable to identify complications which might have a bearing on successful treatment

Gastric analysis is of considerable value in many cases Fasting contents removed the morning after the usual rice and raisin "duration meal" taken at bedtime, if they contain visible rice and raisins, indicate a stenosis either in midstomach (hour-glass stomach), at the pylorus, or in the duodenum The quantity of overnight residue is somewhat of an index of the degree of obstruction, a large quantity with much liquid indicating a very small lumen The acidity may vary, being lower in gastric than in duodenal ulcer The microscopic findings include sprouting yeasts or sarcinae in the presence of free hydrochloric acid usually found in ulcer, as contrasted with lactic acid bacilli and free lactic acid when no free acid is present, as is often the case in carcinoma causing obstruction In high grade obstruction the overnight residue will often contain remnants of food eaten days before

Fractional gastric analysis will produce a curve of acidity which is not always characteristic In gastric ulcer the acidity may be high, approaching a free hydrochloric acid of 60 or 80 units, but it may also be low or even absent In duodenal ulcer the curve of free acidity usually rises rapidly to high figures, even to 90 or 100 or more, and tends to remain high, indicating the hypersecretion usually associated with this condition Absence of blood in the gastric contents is against the presence of an active ulcer, but its presence may be due to trauma in passing the tube If no blood is seen in the early removals but begins to be noticed toward the end of the examination, after one or one and one-half hours, coincident with regurgitation of bile into the stomach, it is

indicative of a source of bleeding in the duodenum and will confirm the presence of an active duodenal ulcer which may have been suspected only by x-ray examination The persistent finding of blood may also be of help in determining the presence of a postoperative marginal or jejunal ulcer

Gastroscopy, in expert hands, will show an ulcer if it comes within the limited area of the stomach which can be viewed by this method, but errors in diagnosis are frequent The new operating gastroscope designed by Benedict permits of biopsy, so that differentiation from carcinoma is possible in cases in which the ulcer can be reached

Stool examinations are of little value in ulcer Occult blood, found in so many stools even on a strict meat-free diet, may be due to slight trauma or bleeding anywhere from mouth to anus or in any of the tracts opening into the gastrointestinal tract Absence of blood may be an indication that no active ulceration is present and is of value in determining cessation of bleeding after massive hemorrhage

Other laboratory examinations, such as blood counts, serologic tests, and the various tests for possible specific diseases causing ulcer, will be of obvious advantage

The differential diagnosis between ulcer and cancer is important Duodenal carcinoma is very rare and is usually associated with biliary tract carcinoma, so that it is rarely confused with ulcer A gastric ulcer, on the other hand, must always be suspected of being a carcinoma with ulceration until proved benign, especially if the patient has no history of previous ulcers While an ulcer on the greater curvature is practically always malignant, the percentage of occurrence of carcinoma as compared with ulcer along the lesser curvature or on the posterior wall near the lesser curvature is not of great help in differentiation The fact that most carcinomas occur between the incisura and the pylorus does not mean that an ulcer seen elsewhere is not malignant The patient's safety demands a definite diagnosis The old teaching that gastric ulcer may become malignant was based on erroneous diagnosis, ulcers malignant from the start having been mistaken for simple ulcers As a matter of fact, gastric ulcers heal so rapidly that there is no time for malignant change to occur except in the scars resulting from healing, and this is very unusual The fact that simple ulcers heal so rapidly is the basis for making a re-examination of all gastric ulcers within three or four weeks after the finding of the ulcer when the ulcer crater may be found distinctly smaller or entirely absent and its surrounding induration diminished or gone, as contrasted with increasing and irregular infiltration in the case of malignancy and increase and often irregularity in the contours of the ulcer crater A few cases have been reported in which the carcinomatous crater was found to be smaller due to proliferation of the tumor tissue within the crater, but careful observation would show an irregularity of outline at this site and the increased surrounding infiltration It must be emphasized that inspection or even biopsy of the ulcer through a gastroscope, inspection and handling of it at operation, and even removal of the ulcer and its microscopic study may often not result in a definite diagnosis, and cytologic study of gastric contents is not absolutely diagnostic It is only by actually observing that an ulcer is healing or has healed, as shown by repeated x-ray studies, that a carcinoma can be definitely ruled out

Treatment

The treatment of peptic ulcer resolves itself into three principal indications the treatment of the simple uncomplicated ulcer, the treatment of complications, and the prevention of future ulcers

Prophylactic treatment is the most important As I mentioned before, ever since the relation between focal infection and ulcer was first demonstrated in 1913, I have carried out systematic and thorough eradication of all infective foci in the body, and my results have justified the really great effort involved in carrying out this program I have never observed the development of subsequent ulcers except in cases in which some new infection had developed, and subsequent care of these would then give excellent results Clinicians opposing removal of foci are invariably those who tried it but did not carry out a comprehensive program and, therefore, got no results My contention is that a clinician allowing obvious infections to remain in any patient who suffers from any chronic disease, whether it has been shown to be one due to focal infection or not, is not giving the patient adequate care, that is, he is treating a disease and not the patient Such neglect is getting to be too common

The presence of one small oral focus, like a retained root fragment in the jaw, may result in complete failure of this method of treatment, so that it is necessary, in the case of the mouth, to insist upon complete mouth x-rays and electric pulp-testing of all teeth, as well as direct observation Extraction of all nonvital or impacted teeth, removal of all retained fragments of teeth or fillings, and, in cases of pyorrhea, the removal of all remaining teeth, or at least of the teeth showing the greatest alveolar resorption, and thorough and frequent scaling of those allowed to remain X-rays after extractions must be insisted upon Such a program requires a degree of cooperation on the part of the dentist which is often difficult to obtain

Ears, nose, throat, and sinuses require a complete study and removal of even suspicious tonsils and necessary operative or other procedures for the eradication of infections in nose, sinuses, ears, and mastoid Chronic sinus infection offers an almost insuperable obstacle with ulcers recurring at any time when an exacerbation or new infection develops The ulcer symptoms usually begin at the end of symptoms of an acute upper respiratory episode I have found that the development of ulcer at such a time may be prevented by proper care of the acute infection, with particular attention to adequate drainage, to prevent absorption of the agent producing the ulcer

In the female, a very frequent cause of ulcer is the infected cervix, which may require anything from cauterization to extirpation Acute or chronic vaginal and uterine adnexal infections should of course be adequately cleaned up In the male, chronic infections in the prostate are a very common cause, but acute and chronic infections of any part of the genital tract should be eradicated Renal, ureteral, and bladder infections also must be treated

Although the three areas just mentioned constitute the most frequent sites of focal infection associated with the development of ulcer, others must not be neglected Rectal and colonic infections, pulmonary infections, bone infections, and even chronic skin infections must be eliminated Ulcers may also occur during any acute infectious disease

Treatment of the Uncomplicated Ulcer

Treatment of the uncomplicated ulcer is comparatively simple Realizing that such ulcers, no matter what their size or location, will heal spontaneously and completely in a matter of days or weeks, or, in the case of large lesser curvature ulcers, in a couple of months, all that is necessary is to provide conditions favorable to healing I tell patients that the ulcer is like the one occurring in the neck after a boil is opened, for which a salve is applied and held in place by a bandage In the stomach, instead of a salve, a diet like a salve should be used and kept in place by frequent replenishment The diet should be well-balanced, with possibly a slight excess of protein which long ago was shown to promote healing, and should consist of three meals per day with between-meal and nocturnal feedings at two or three-hour intervals while the patient is awake It has long been contended, and I agree with these observations, that animal protein does not agree as well with ulcer patients as egg, milk, cheese, and gelatin, so that I leave meat out of the diet for the first two or three months The reason for the irritation from meat is not definitely known, but perhaps the dead animal protein may contain a substance similar to the "cytost" of Turck. Forty years ago, when patients had ulcer recurrences, the eating of meat was blamed for them, and today I use a return to a normal meat diet as a clinical test of cure of an ulcer A return of an ulcer then indicates that some focus of infection has been overlooked The diet, which with slight modifications is the same as the one I adapted from von Leube's recommendation in my first paper on ulcer which I read forty years ago, is as follows [4]

ULCER DIET

Breakfast
- Milk one glass
- Cereal large dish, with sugar and milk or cream
- Egg one or two, soft boiled or poached
- Bread or toast with butter, one or two slices
- Juice of one orange, at end of meal

Midmorning
- Powdered gelatin, one heaping teaspoonful stirred into one-half glass of water followed by,
- Milk one glass

Luncheon
- Milk one glass
- Egg one soft boiled or poached, or cream cheese, one-half cake
- Baked or mashed potato or plain spaghetti
- Bread and butter, one or two slices
- Pudding, custard, gelatin, ice cream, or stewed fruit

Midafternoon
- Same as midmorning

Supper
- Same as breakfast or luncheon

At bedtime and at two and one-half-hour intervals in night if awake feedings as between meals

As this diet is somewhat deficient in vitamins and minerals, I usually prescribe these in capsule or tablet form Because of the deficient indigestible residue, a dose of one-half ounce of mineral oil may be given at bedtime There is no reason for interdicting salt In patients with marked gastric irritability a tablespoonful of vegetable oil may be taken just before meals Otherwise no medication is necessary or desirable I have not used alkalies or antacids or any other medication for over thirty years, and my patients do as well as any reported in the literature The feeding of predigested foods, formerly supplied in the form of peptonized milk and eggs and recently in the form of amino acids, is entirely unnecessary in a disease characterized almost invariably by excessive secretion of gastric juice Psychotherapy, in the way of explaining the simple requirements for healing, the uselessness of medication, and the undesirability of sedatives, will greatly aid in the rapid relief of

symptoms Most patients report complete cessation of pain within two or three days This diet is followed for from four to six weeks when vegetables and fruits are gradually added A full diet, with between meal feedings continued, is usually started at about three months, provided focal infections have been cleaned up in the interim X-ray check-up should show the ulcer healed

Surgical treatment is unnecessary in uncomplicated ulcer Failure to get relief by the diet outlined may be due to incorrect or insufficient diagnosis Other diseases with symptoms simulating ulcer or complicating ulcer, such as biliary tract disease, appendicitis, ileocolitis, diverticulitis, and even diseases outside the gastrointestinal tract, such as pelvic or genitourinary lesions, should be searched for and adequately treated Allergy to one or more of the foods in the diet may cause aggravation of symptoms I have seen immediate relief of symptoms previously aggravated by the ulcer diet when milk was eliminated from the diet Operative treatment should be confined to complications

The complications of ulcer requiring special care include hemorrhage, perforation, and stenosis Formerly, "carcinomatous degeneration" was included among the complications, but, as pointed out before, it is extremely rare, errors in the past having been due to mistaking a carcinomatous ulcer for a simple gastric ulcer In my experience patients with a history of previous ulcers who have later developed carcinoma have shown the carcinoma not to be located at the site of previously observed ulcers

Treatment of Hemorrhage

Hemorrhage is the most frequent complication of ulcer Slight bleeding, of course, occurs on the surface of all ulcers during the active stage As little as 30 cc of ingested blood will produce a black stool, and such a stool or a trace of bright blood in the vomitus without general symptoms of hemorrhage is of slight significance Real massive hemorrhage is usually manifested first by general symptoms such as sudden weakness, vertigo, palpitation, dyspnea, cold extremities, and sweating, the symptoms of shock. Frequently, such patients are treated for a "heart attack," especially when bright bloody vomitus and/or tarry stools are not noticed by patient or attendants I have even seen patients treated for "ptomaine poisoning" because they had arisen in the night and had vomited and passed a "diarrheal stool" in the dark, the subsequent anemia being attributed to the "poisoning" The real tarry stool is not merely black but of a sticky, tarry consistency, in severe cases mixed with liquid dark blood The vomitus may consist of bright blood or clots, depending on the length of time it has remained in the stomach. The blood count, before dilution of the blood by absorption of fluid from the tissues, will be the same as before the hemorrhage, dropping after twenty-four or forty-eight hours to its minimum if a single hemorrhage has occurred Continuous bleeding is most simply recognized by frequent recording of the blood pressure and pulse, a continuous fall in pressure and increase in pulse rate indicating continuous bleeding Prerenal azotemia with blood urea nitrogen up to 40 or 60 mm per 100 cc reaches its height in twenty-four or forty-eight hours and unless bleeding continues will gradually drop to normal in three or four days [5] It can, therefore, also be used as an indication of continued bleeding In a patient known to have had ulcers previously, a hemorrhage may be assumed to be due to ulcer, but it must be remembered that massive hemorrhage may be due to blood dyscrasias, ruptured esophageal varices, esophageal, gastric, or duodenal neoplasms, or even to severe gastritis Fortunately, the same treatment will be adequate for any of these causes, except that a ruptured varix might require cauterization

Nature's way of stopping hemorrhage from a bleeding vessel which is the usual cause of ulcer bleeding is by producing shock which enforces rest in a horizontal position, reduces blood pressure so as to prevent blowing out of the clot which forms at the site of bleeding, and increases the formation of blood coagulation factors It is important to aid nature in the maintenance of these conditions The patient should be at rest in bed, the blood pressure should not be raised suddenly by intravenous injections of any kind, and stimulants should be avoided While blood remains in the stomach, digestion of the clot is prevented by digestion of the blood, but when this has disappeared, the same effect can be secured by frequent feedings of soothing, liquid foods which combine readily with gastric juice and if possible act as coagulants Gelatin accomplishes this end The following is a copy of the routine treatment for hemorrhage used for many years on my service at the Long Island College Hospital and resulting in a mortality of about 2 per cent as compared with previous mortalities of 8 to 15 per cent by medical and 4 to 30 per cent by surgical treatments [6-9]

ROUTINE IN GASTRIC HEMORRHAGE

1 Order gastric hemorrhage diet
2 Treat shock by rest, warmth to extremities, and sedatives, if required
3 Quiet apprehension Reassure patient Do not isolate

4 Do not take a detailed admission history nor make a complete physical examination Do no more than rule out complications or bleeding from causes other than ulcer

5 Order blood coagulation tests coagulation and bleeding time, prothrombin time, vitamin K determination, and platelet count If coagulation is impaired, prescribe coagulants.

6 Type and match blood for transfusion No transfusion to be used in first ten days except for evidence of severe anovia Then try one or two transfusions of 150 to 220 cc of citrated blood If not successful, prepare for continuous drip transfusions to be used until bleeding stops or at least for thirty-six hours (may require 6 to 8 L of blood)

7 Chart blood pressure every two hours at first, blood urea nitrogen every two days at least

8 Test all stools for occult blood until this disappears

9 Start mineral oil, one-half ounce, every night after second night Retention oil enema on fourth night and thereafter as required

10 Do fractional gastric analysis on about the twelfth day in uncomplicated cases

11 Start x-rays on about the fourteenth day if bleeding has stopped

12 No gastroscopy until after x-ray

Contraindications

1 Ice Externally, increases shock Internally, stimulates gastric circulation

2 Parenteral fluids generally increase blood volume and pressure and cause more bleeding Small transfusions may be required in severe anovemia (See Routine)

3 Stimulants (digitalis, adrenalin, etc) tend to increase bleeding Only used in emergency

4 Alkalis stimulate secretion and irritate bleeding area

5 Excitement or worry increase shock, and reaction may increase bleeding

6 Examinations, manipulations, or treatments Only if absolutely necessary, especially in first few days

The formula for the gastric hemorrhage diet is as follows

Gelatin-Milk Feeding (Table I) Milk, cream, and dextrose are mixed together and kept in the refrigerator Gelatin, at the rate of 50 Gm per liter of the mixture or approximately 75 Gm. per day, kept in a paper cup at the bedside, is to be added at each feeding as follows A rounded teaspoonful is to be dissolved in one or two ounces of warmed milk mixture, and this is added to remaining cool mixture, making a cool, palatable drink. If the patient prefers it, the drink may be warmed A little flavoring (tea, vanilla, cocoa) may be added at time of feeding if desired

Routine For the first four days after the hemorrhage, feed 6 ounces of mixture every two hours, nothing else by mouth If asleep, the patient should not be disturbed for three or four hours

On the fourth, fifth, and sixth days add to three or four of the feedings one of the following one egg, soft boiled, poached, or raw, cereal, three ounces, custard, jello or ice cream, 3 ounces, and allow water in 3-ounce quantities between feedings

On the seventh and eighth days, add two of above foods to each feeding

On the ninth day, order ulcer diet

In patients who are allergic to milk or who object to it, a less satisfactory substitute is a mixture like the following (Table 2)

TABLE 1.—FORMULA FOR GELATIN-MILK FEEDING

Food	Amount	Carbohydrate	Protein	Fat	Calories
Gelatin	50 Gm.		45 Gm.		180
Dextrose	60 Gm.	60 Gm.			240
Cream (20 per cent)	100 cc	3 Gm.	3 Gm.	18 Gm	180
Milk	900 cc	36 Gm.	27 Gm.	27 Gm.	550
		99 Gm.	75 Gm.	45 Gm.	1 150 per L.

TABLE 2.—FORMULA FOR GELATIN-WATER FEEDINGS

Food	Amount	Carbohydrate	Protein	Calories
Gelatin	50 Gm.		45 Gm.	180
Dextrose	90 Gm.	90 Gm.		360
Juice of 3 oranges		30 Gm.		120
Water	to 1 000 cc			
		120 Gm.	45 Gm.	660 per L.

This is used the same way as the gelatin-milk mixture In milk allergy subsequent additions must consist only of milk-free foods

Vitamin C, 0 5 to 1 0 Gm per day, should be ordered with either routine diet

It will be seen from a study of the above routine that in the case of the gelatin-milk feedings, a patient taking nine or ten feedings per day will be consuming nearly 2,000 calories in twenty-four hours with about 100 Gm of protein In the case of the gelatin-water feedings only 1,000 calories will be taken, with only about 60 Gm of protein, represented by the gelatin alone, or more if the patient can take a protein mixture

In patients with stenosis complicating the hemorrhage, the treatment suggested for stenosis must be carried out In uncomplicated hemorrhage the usual studies are carried out after ten or twelve days, and complete treatment for ulcer is instituted

Surgical treatment for hemorrhage is not often recommended With operation of all hemorrhage cases at the onset of bleeding, the mortality in expert hands is two or three times as high as with medical care With operation after persistent, recurrent bleeding with the patient in severe shock, even under the most careful adjuvant treatment the mortality is so high that most surgeons refuse to operate In three patients ap-

parently moribund we have been able to save their lives by continuous drip transfusion over a period of thirty-six hours or more, using 6 to 8 L of blood

Treatment of Perforation

Perforation of ulcer may be of the acute or of the so-called "chronic" type Acute perforation due to sudden rupture of the ulcer through the peritoneal coat into the free peritoneal cavity usually occurs at the time the ulcer begins It may, therefore, occur suddenly without previous ulcer symptoms or with a history of previous attacks over years Where an ulcer has been shown to be present previously, the perforation usually can be demonstrated as due to another, new ulcer either at the edge of the previous one or some distance away The sudden terrific pain followed by shock and symptoms of peritonitis with shifting air demonstrable in the peritoneal cavity by roentgen examination or by diminished or absent liver dullness calls for immediate operation, although it must be emphasized that, to prevent too high a mortality, recovery from shock should be complete before the shock of operation is superimposed Simple closure of the perforation is the conservative procedure, leaving further care of the patient to the future

Chronic perforation is the term often used to describe the perforation which has been walled-off by the protective response of the omentum in covering up the site of the impending perforation or by adhesions to neighboring organs, most frequently the pancreas but also the gallbladder, liver, or colon producing an extravasation or fistula into these organs The onset of this perforation may cause very severe pain with signs of localized peritoneal irritation or acute pancreatitis or cholecystitis, which, however, does not increase or subsides gradually over an observation period of several hours, so that operation may be deferred

With the formation of firm adhesions spill is prevented, and an accessory pocket is produced This pocket, whose base is not stomach wall but the tissue of the neighboring organ, cannot heal up as in the case of an ordinary ulcer It may remain open for years, producing symptoms either continuous or intermittent, often brought on by exertion or other trauma, and sometimes accompanied by bleeding of the chronically inflamed tissues or by perforation at the edge of the pocket due to tearing away of adhesions Rarely, cicatricial contraction or granulations in the pocket may cause obliteration so that the pocket can no longer be seen roentgenographically with symptoms sometimes clearing up entirely or others persisting, or the contraction may cause stenosis

It is these perforated walled-off ulcers with accessory pockets which are the ones causing chronic persistent or frequently recurrent symptoms They are erroneously called "intractable ulcers"[10] They should be recognized at the time of a complete study, and the probable need for operation should be explained to the patient. After suitable preparation consisting of ulcer treatment as previously described, some suitable operative procedure is indicated

Treatment of Stenosis

Stenosis may occur as a result of inflammatory reaction, induration, and edema at the onset of an ulcer or as a result of cicatricial contraction following healing of an ulcer or adhesions or cicatricial contractions following perforated or almost perforated ulcers It is recognized by the cardinal symptoms of "delayed vomiting," the patient vomiting at long intervals all or nearly all of the food taken during the interval. Where only small amounts of food are being taken, the stomach may never become so overloaded as to cause vomiting, but the constant epigastric fullness and the belching and eructation of gas or sour material smelling of yeast may indicate the condition Rapid loss of weight and strength and increasing pallor are also noted The overnight residue already described under gastric analysis and the finding of a large atonic stomach with not only six but often twenty-four or even forty-eight hour gastric retention of the ingested opaque meal will clinch the diagnosis Often the ulcer will not be immediately demonstrable The purpose of treatment should be to give small amounts of concentrated liquid nourishment at frequent intervals to stimulate peristalsis and improve gastric tone, plus daily or twice daily aspiration of all gastric content to prevent overdistention and to act as index of improvement and parenteral administration of dextrose and amino acid solutions, fortified with vitamins, and minerals and any other medication which may be indicated Transfusions are also of help I use the same mixture of milk, cream, and glucose, with added gelatin as I use for hemorrhage but starting with four ounces of the mixture every two hours while awake and gradually increasing the quantity, adding raw eggs, protein preparations, and fruit juices and later cereals, puddings, and other foods, as indicated by improvement shown in diminishing returns on daily aspiration In cases where an inflammatory reaction with spasm was the cause of the stenosis, there is a gradual subsidence of the obstruction so that additions to the diet are readily taken The true organic stenosis may show some improvement, but more solid foods, even bread, will not pass the narrow point Repeated roentgenographic study after

ten days will determine the extent of improvement Some patients will show complete and permanent relief of the obstruction, others will require operation for relief In either case general ulcer treatment is indicated in addition

After operation, early feedings, following in detail the routine suggested for gastric hemorrhage, will usually result in an uncomplicated convalescence, and a subequent full course of ulcer treatment as suggested previously will give the best final results

88 SIXTH AVENUE

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TO A VIRUS

I

Twinkle, twinkle, little virus,
Do you find me so desirous
That you haunt me where I lie,
And you'll do so till I die?

II

First, you naughty little virus,
Like dots of red on white papyrus,
You daubed my skin with German measles
Not to mention coughs and sneezles

III

Then, my nonspecific virus,
You traipsed across my tired gyrus
And loosened full your endo-tox
The time you gave me chicken-pox.

IV

Then there came like a cadenza
Acute coryza with influenza
Tracheo-laryngo-pharyngitis
And equine encephalomyelitis.

V

Twinkle, twinkle, little virus
I wish I were a rose or iris
That has no lungs that consolidate
Then I'd snub you and go pollinate

J H WERK, M D

Port Jefferson—*Bulletin of the Suffolk County Medical Society, October, 1949*

MY ACHING BACK

I

Were I a victim of lechery
Or given to treachery
With bats in my turret
I'd much prefer it
To this nasty affliction
That defies prediction
I refer, to be precise and plain,
To this lower than low, low-back pain

II

Were I a case of megalomania
Or stowed away on the Mauretania
I'd sooner have it
(And be mighty avid)
Than this nasty disease
That none can appease
That has me on the torture rack
I mean that pain that's down the back

III

I've been a sufferer of colitis
I've seen gobs of myelitis
Not to mention
Marked retention
All of which I could endure
Acceptance that I'd ne'er adjure
If only you would break the strain
Of this awfully low, low-back-pain.
Or if none of these fine suggestions fit,
Could you please move it up or down a bit

J H. WERK, M.D

Port Jefferson—*Bulletin of the Suffolk County Medical Society, September, 1949*

PSYCHOSOMATIC ASPECTS OF REGIONAL ILEITIS

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THIS paper reviews the proved cases of regional ileitis diagnosed over a nine-year period at the Presbyterian Hospital in New York City, with particular attention to the nature and frequency of psychiatric problems found

Review of Literature

The first systematic description of the disease was reported in 1923 by Crohn *et al* who compared the symptoms to those of ulcerative colitis [1] The cause remains unknown In the attempt to discover the causative agent, almost every possibility has been investigated [2]

There have been a number of papers dealing with the pathology of the disease Schepers suggested as one possibility that the disease was caused by a "neuropathic disturbance," a concept consistent with a psychogenic cause [3] A similar conclusion is offered by Morehead who writes, "Its high incidence in neurotic individuals suggests the possibility of vasospasm as the initiating factor "[4]

In a more recent review, Bockus points out that the etiology is unknown but states "I have encountered very few calm and phlegmatic persons with this disease Many of them were emotional, sensitive, rather excitable people At least four of 19 patients could be classified as severely psychoneurotic The most prominent personality traits were anxiety and emotional immaturity It has seemed to me that emotional immaturity is even more pronounced in patients with chronic regional enteritis than in those with chronic ulcerative colitis "[5] In a discussion following presentation of a paper by Garlock and Crohn, Dr H C Cave states that he had noticed nonspecific enteritis usually occurred among "high-strung, nervous persons not unlike that group of patients among whom duodenal ulcer frequently develops "[6] However, many writers fail to see the possibility that emotional factors may be a cause of structural changes, as suggested by Weiss and English [7 8]

Notwithstanding the suggestive comments made by Bockus, Schepers, and Morehead, there has been neither a systematic investigation of the personal history of patients with regional ileitis nor any study of the psychiatric factors which might play some role in the production of the disease This paper is a report of the investigation of these factors

Methods

The material dealt with in this paper was taken from the case records of the Presbyterian Hospital and included histories of patients in whom the diagnosis of regional ileitis was made during a nine-year period from 1940 through half of 1948 A total of 82 charts were examined In most of these records, the personal history, social service record, and the record of psychiatric examination contained sufficient material for the purpose of this paper However, a more intensive study of emotional factors was undertaken in those cases where the clinical diagnosis of regional ileitis was substantiated by subsequent operation and later histologic examination of the pathologic specimen

There was a total of 27 cases An attempt was made to interview these patients Of this group of 27, ten were seen on one or more occasions for the purposes of this study, 13 could not be found, and four were known to be dead

Table 1 presents an analysis of the total 82 cases in which the tentative diagnosis of regional ileitis had been made These cases are examined in terms of the correctness of the diagnosis and the presence of psychopathology

From Columns 1 and 2, it can be seen that in 27 cases proved to have regional ileitis by operation and by microscopic examination of the pathologic specimen, 20 were found to have significant psychopathology These cases are discussed in more detail later

In Columns 3 and 4 are ten cases in which both regional ileitis and ulcerative colitis were present either simultaneously or in succession Because it is now generally recognized that psychopathology plays some role in the genesis of ulcerative colitis, these cases were not included with those studied intensively Psychopathology was uniformly present in the entire group of ten

In Columns 5 and 6 are listed 20 cases in which the diagnosis of regional ileitis was made on the basis of clinical and laboratory studies Since the diagnosis was not confirmed by operation nor, therefore, by any study of pathologic tissue, no intensive study of these cases was made However, from the chart records alone it was apparent that psychopathology was present in 16 of the 20 cases

Finally, in Columns 7 and 8 are listed 25 cases in which the tentative impression of regional

TABLE 1.—Relationship of the Diagnosis of Regional Ileitis to the Presence of Psychopathology in 82 Cases Diagnosed at Presbyterian Hospital in New York City from 1940 to 1948

Year	Number of Patients	Correct Proved Diagnosis		Correct Diagnosis but Complicated by Ulcerative Colitis		Probably Correct Diagnosis		Proved Incorrect or Probably Incorrect Diagnosis	
		Number	Positive for Psychopathology	Number	Positive for Psychopathology	Number	Positive for Psychopathology	Number	Positive for Psychopathology
1940	15	5	3	4	4	3	3	3	0
1941	14	5	4	1	1	7	5	1	0
1942	11	3	2	1	1	3	2	4	1
1943	8	5	3	1	1	1	1	1	0
1944	7	3	3	0	0	1	1	3	0
1945	8	1	1	0	0	1	1	6	1
1946	8	1	1	3	3	1	0	3	1
1947	8	2	1	0	0	3	3	3	1
1948	3	2	2	0	0	0	0	1	0
Total	82	27	20	10	10	20	16	25	4

ileitis was later proved incorrect or most improbable In only four of the 25 cases was there evidence of psychopathology This group acts as a control series for the group in which the diagnosis of regional ileitis was proved correct

The table shows, by comparing the totals in Columns 1 with 2, 5 with 6, and 7 with 8, that, in those cases where the diagnosis of regional ileitis seemed likely, psychiatric factors were prominent (36 out of 47), whereas in those cases where the diagnosis of regional ileitis was improbable or incorrect, psychiatric factors were markedly less frequent (four out of 25)

A more intensive study of the 27 cases in which the diagnosis of regional ileitis was confirmed by operation was undertaken The equal distribution between the sexes, 14 men and 13 women, and the average age of onset of the disease at slightly below thirty years are in agreement with the reports of others [9 10]

Seventeen of the 27 cases were diagnosed preoperatively from x-ray films This confirms the opinion expressed by Brown and Donald that x-ray studies are the most important diagnostic aid [11] The x-ray findings in regional ileitis were those that have been described by Kantor [12]

Following study of the charts of these 27 cases, they were divided into three groups

1 Seven cases in which evidence of psychopathology was inadequate None was available for interview by the author

2 Three cases in which psychopathology was present and may have played some role in the disease process None was available for interview

3 Seventeen cases in which psychopathology was very prominent and probably played some role in the genesis of the disease process

In the seven patients comprising Group 1, there was little evidence in the history charts to suggest that emotional problems played a role in the onset or exacerbation of the disease This may, in part, be accounted for by the fact that none of these patients was available for interview The only personal history available had to be taken from the medical history presented in the hospital charts In five of the seven, there was no follow-up, and the period of time in which they were known to the hospital was eight months or less In the remaining two, the disease process was relieved following a single surgical intervention, and, therefore, there was no reason for inquiry into the personal history In spite of this, one patient gave a history of chronic constipation relieved by a regular nightly laxative He also had a son who had a "spastic colon" Another patient described herself as nervous and irritable, a third complained of nervousness and lack of self-confidence, a fourth described himself as nervous and high-strung, and a fifth complained of feeling discouraged and said she didn't want to live These comments were of course considered neither sufficient nor accurate enough evidence of emotional problems to justify including these patients in the group in which psychiatric factors appeared to play some causative role

There were three patients in Group 2 in whom there was sufficient evidence of emotional tension and strain so that it seemed likely that psychiatric factors played some role in the production of the disease None of these three patients was available for interview, the personal history obtained was limited to what was in the charts

One was a thirty-year-old, incredibly optimistic, dependent, obsessive-compulsive, "goody-goody" man who was unable to express aggression in any fashion Underneath his facade of cooperative agreeableness, there was evidence of considerable aggressive demands The second patient was a hard-working, self-reliant accountant who described himself as having always been of nervous temperament and a poor sleeper His tense, driving temperament, combined with his inability to accept help, which was in conflict with his obvious dependent needs, suggested that psychiatric factors may have played some role in his illness The third patient in this group, a seventeen-year-old Jewish girl, was described as

tense, nervous, demanding, uncooperative, and irritable It was felt that her mental status was such that even medical treatment was impossible, and she later died

The remaining 17 cases (Group 3) gave definite evidence in the history that the onset and later exacerbations of the disease were correlated with emotional problems Of this group, seven were interviewed for the purposes of this paper, eight were seen by a psychiatric consultant in the course of their hospital stay, and only two were not at some time seen by a psychiatrist Seven of the 17 were treated psychiatrically, and one other was committed to a mental institution where she died

A summary of one of the case histories, with protocols of three others, are included here as examples

Case Reports

Case 1 —R F was a thirty-three-year-old Negro subway porter His chief complaints were symptoms suggestive of intestinal obstruction He gave a long history of borborygmi and constipation When interviewed, he appeared to be a soft-spoken, receptive, dependent, and ingratiating person

He described his mother as a hard-working, well-meaning person She was first married to an actor who left her $10,000 when he died She next married the patient's father, who is described as a professional confidence man, a gambler, bootlegger, and dealer in narcotics

The patient recalls frequent police raids on his home during his childhood His father would generally get away, but his mother would be locked up His father deserted the family when the patient was seven His mother then worked in a laundry to support the patient and his siblings, two sets of twins

The patient began work when nine years old, washing cars Shortly after this, his mother remarried for the third time, "because things were so tough" This marriage is described as the worst her third husband had served ten years in jail and had committed a number of murders He was abusive to her and to the patient The patient remembers with anger and resentment how frustrated he was because he was too small to fight back Later the third husband again went to jail When he got out, the patient was twenty-one years old and refused to let him stay in the house He had to "run him out with a knife"

The patient married at sixteen His wife was seven months pregnant at the time of marriage She had a bad reputation and had "never tried to make anything of herself" He married her because he was afraid he would be sent to reform school if he didn't They had frequent fights, and she threatened him with a knife on several occasions. She was described as insanely jealous but frequently unfaithful He wanted a divorce which she would not give him. He felt frustrated because he was unable to force a decision His children were insecure, fearful, and cried frequently

He left his wife for four years (1930 to 1934) and lived with his mother and his two older children. During this time he met his present fiancée His wife finally brought court action against him for increased support which he felt he could not provide Therefore, he returned to her, telling his girl friend he was going to try again to make a success of his marriage A few months afterwards, his stepfather returned to live with his mother The patient cried when he saw her take him back However, the stepfather soon began fighting, drinking, and gambling again and was forced to leave after three months

After this, the patient was the main support of his mother as well as his wife and children but continued to see his girl friend He was working hard trying to get ahead in the Civil Service, taking evening courses and working as a subway porter He tried a job as street car conductor for a month but found it too strenuous and said, "It almost caused me a nervous breakdown" His youngest son had developed ulcerative colitis and required tutoring at home

Because the patient had the burden of his father and then his stepfather and the constant burden of his mother, wife, and children, he was unable to realize his highly ambitious goals to better himself and felt deeply frustrated His wife had found out about his girl friend and had tried to "cut her with a knife" He was also in debt It was in this setting that his illness finally became acute with obstruction and required his hospitalization

While the patient was in the hospital, the social service agency arranged for relief support of his mother Following discharge from the hospital, the patient drew his pension money which he used for a divorce This was the first time he had had enough money to make this step His mother died at this time, and he began living with his fiancée whom he describes as "a lovely girl who is kind and generous and gives me moral and financial support"

He has since been promoted in his job so that he has a permanent position as a subway guard At present he is moved from one station to another each day and works either on the platform or in the change booth He has, on a number of occasions, been assigned to the busiest stations When he reports for work, he feels tense and insecure, and these emotions affect his gastrointestinal tract He states, "The necessity of tackling the job makes me feel insecure and goes to my stomach and causes me diarrhea Anything that makes trouble for me makes me feel insecure, makes me feel rebellious When this clears up I feel O K When I feel that I'm master of the job, I stop being tense I like a conservative life, not an exciting one I get rattled when people try to hurry me and that makes me burn up inside" He has two bowel movements per day on a quiet day, but when he gets excited it goes up to five or six a day

In spite of his desire for a conservative life, whenever he reaches some reasonable expectation of emotional or financial security, he undertakes additional

responsibility which jeopardizes his position This results from the conflict of his dependency needs and his ambitious goals

Case 2—J K. was a forty-six-year-old Jewish printer He described his mother as a nagging, dominating person, whom he never felt free to criticize. He appeared to be a dependent, passive, and immature person whose ambitions lay well beyond his ability

His illness began at a time when he felt very guilty over a protracted affair he was having with a married woman It became worse when he found she was also intimate with another man However, he continued his relationship with her because he worked for her grandfather When this situation ended, his symptoms subsided, although he noticed he had diarrhea when he became emotionally upset

His most recent attack followed an argument with a tough neighbor, in which he was told to "shut up or fight." He shut up but couldn't get over the humiliation of the affair He was unable to sleep, lost his appetitite, and felt lonely and depressed

He described himself as easily upset, a shy, self-conscious worrier who "boils inwardly" and broods when facing a situation calling for aggressive action

Case 3—H W was a forty-year-old Jewish deputy collector of internal revenue He appeared to be an insecure, tense, emotionally labile person The diagnosis of regional ileitis and anxiety state was made At the time of hospitalization he had frequent suicidal preoccupations and was demanding and resentful

His life history revealed that he was orphaned at the age of eleven months and subsequently developed a "fight-at-the-drop-of-a-hat" philosophy In 1935, following his separation from his wife because of numerous quarrels, his son contracted a severe case of poliomyelitis The patient was extremely anxious, worried, and depressed during this period, and it was then he first developed his symptoms The attack subsided following surgery and his reunion with his family He was on his good behavior and says, "Instead of fighting back when someone tread on my tail, I was quiet, but I felt it in my guts"

Case 4—L L was a twelve-year-old Jewish boy His mother was a dominating, possessive person The father was described as demanding and irritable. As a child, the patient was both a behavior problem and a feeding problem He was toilet-trained early In spite of the obvious overt hostility between the patient and mother, he described himself as dependent on her and constantly in need of her presence

Later, when the patient voluntarily expressed the idea that worry and dissatisfaction had a marked effect on his symptoms, he recalled that at the time of the onset of his illness, he had had a premonition that his mother was going to die He also had the idea that he would die too, and there "would be no world for anybody" It was noted in his chart that improvement in his long illness dated from the first day he got his job After considerable pressure, his mother was persuaded to let him go to Arizona alone He later wrote from there that he was physically well and mentally very happy

Comment

In this type of study, no decisive relationship of emotional problems to a somatic disease such as regional ileitis can be shown At best, the study may serve as a stimulus to further inquiry However, the material presented does strongly suggest some type of interrelationship The first piece of evidence for this is the high correlation of both emotional problems and regional ileitis in those patients with proved diagnosis when compared with a control group without regional ileitis A second piece of substantiating evidence is the fact that exacerbations of the disease are found to coincide in time with some disturbance in the emotional life of the patient In addition, there is some suggestion that the severity of the disease and the prognosis are related to the severity and chronicity of emotional disturbances

If regional ileitis is conceived of as a psychosomatic disease, comparable in many ways to peptic ulcer and ulcerative colitis, it should be possible to treat selected cases in the same way that selected ulcer and colitis cases have been treated, that is, by vagectomy [13,14] In this series only one patient has been treated by vagectomy It is too early to make any evaluation of the result

A final piece of evidence favoring the concept that emotional factors are important in regional ileitis comes from even a superficial examination of the psychodynamics of the 17 patients comprising Group 3, who all display certain similarities in their patterns of psychologic adaptation In all of them, overt fear and repressed rage were present as part of a dependency pattern of adaptation produced as a defense against a threat to their security

It is not suggested that the dependency pattern of adaptation associated with overt fear and repressed rage is unique in regional ileitis, since it is observable in most patients who have an illness in which emotional factors contribute to the genesis of the somatic disease The additional constitutional, hereditary, or experiential factors which must also exist and which determine the choice of the end organ are as yet unknown

The evidence cited above furnishes the present basis for the psychosomatic concept of regional ileitis This concept permits the following formulation of the known facts It is felt that emotional factors start the series of events in some cases In persons predisposed by constitutional or hereditary factors or early childhood experiences, the emotional disturbance produces, via the autonomic nervous system, a disorder of gastrointestinal physiology, characterized by hypermotility, spasm, and hypersecretion These changes produce an inflammatory reaction with lymph-

edema and finally necrosis and ulceration in the mucosal crypts This is an early, or acute, stage from which some patients recover spontaneously and at which time in other cases psychotherapy or vagectomy might be therapeutic

If, however, the precipitating factors continue, the illness gradually progresses with further necrosis, continuous diarrhea, further inflammation, secondary infection, pain, and anemia The progression of the illness ends in irreversible scarring and hardening of the small intestine and finally obstruction Because the structural damage in the late stages of the illness is irreversible and because the local gastrointestinal lesions become autonomous, treatment requires surgical intervention, either a short-circuiting operation or resection

Summary

The charts of 82 cases of regional ileitis accumulated over a nine-year period at the Presbyterian Hospital in New York City were examined for the presence or absence of psychiatric factors In 25 cases the diagnosis of regional ileitis was disproved or seemed unlikely Of these, only three seemed to have any emotional problems In ten cases, ulcerative colitis coexisted, and in all ten emotional factors were present

In the remaining 47 cases, in which the diagnosis of regional ileitis seemed probable, emotional problems were present in 36 In 27 of these 47 cases, the diagnosis of regional ileitis was proved at operation and by examination of the pathologic specimen

The histories of these 27 proved cases of regional ileitis were studied in detail In 20 patients, sufficient evidence was obtained to suggest that emotional factors play a considerable role in the production and progress of the disease In the remaining seven cases, no information was available as to the role of emotional factors A formulation of the disease from a psychosomatic point of view is presented

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W P ANDERTON, M.D , *Secretary*

THE MANAGEMENT OF EAR PROBLEMS IN CHILDREN

MARVIN F JONES, M D , New York City

(From the Department of Otolaryngology, Manhattan Eye, Ear and Throat Hospital)

THE solution of the problems of deafness or impaired hearing in the adult may be found in the child Aside from the fenestration operation there is little to offer the adult patient to restore useful hearing With the exception of the comparatively small percentage of otosclerosis patients among people with impaired hearing, nothing except a hearing device will restore adult loss of hearing to a useful hearing level This statement does not hold true for the child A child's impaired hearing may be improved, cured, or prevented

There are many reasons why hearing difficulties of children have been overlooked or ignored The youthful patient is always more of a diagnostic problem than the adult and perhaps more of a challenge to the ability and tolerance of the otologist Parents sometimes complicate the problem for both the child and the otologist A knowledge of child psychology, parent psychology, a complete understanding of otolaryngology in children, plus endless patience must be at the command of any doctor who is to work in the only field where prevention or cure of deafness is now possible Diplomacy, in its finer sense, must control all the actions of the doctor

When a nice little child cooperates beautifully during the routine examination and the beaming parents are justifiably proud of the youngster's behavior, it takes real courage to follow through and complete a nasopharyngoscopic examination But, unfortunately, such an examination may be the most important part, since it is the most satisfactory and perhaps the only satisfactory way to examine a child's nasopharynx. The procedure usually gives the most valuable information obtainable Too few otologists have taken advantage of this instrument in routine examinations The usual method employed is to insert a finger between the child's carefully guarded teeth into the nasopharynx. This is an informative procedure and sometimes necessary, but it is also a strain on the heretofore friendly patient-doctor relationship Again I say the proper use of the nasopharyngoscope is the only method which enables an examining doctor to make a satisfactory examination of a child's nasopharynx When the child is not cooperative, such an examination is practically impossible and may be dangerous The use of a transient general anesthesia is justified We must be very sure of our grounds, however, before we subject our small patient to the slight additional risk from an anesthetic

Something has happened in the past several years to reduce the incidence of acute and chronic otitic infections in children This decrease started before antibiotics and sulfa drugs came into use If anyone accepts the statement that such infections diminished before these new medications were used, the individual must ask himself why In response to the question, some possibilities come to mind After careful consideration, some of the following causes may be classed as probable

Wholesale removal of tonsils and adenoids has been condemned, and perhaps with justice Those of us who have legitimately removed these tissues have felt like hanging our heads in shame because of confrère and public onslaught I doubt if anyone will question the fact that overenthusiasm in the past has placed a certain stigma on a useful and necessary surgical operation ; We have damned each other and been damned by others for removal of tonsils and adenoids, but I have reached the conclusion that this almost routine procedure of not so many years ago has had a beneficial effect on the health of the patients thus treated Complications of upper respiratory infections have been less

In recent years, the otolaryngologists have been condemned because of their sometimes overenthusiastic tonsil and adenoid surgery, but, when the final estimate is given, I believe this surgery can be credited for a diminution in all types of ear infections, sinus infection, and the malnutrition in children not caused by insufficient and poor food In a child with impaired hearing, the tonsils and adenoids should be thoroughly removed by surgery This statement is not in agreement with other authorities, but I believe it will stand the test of time

The use of radium for the removal of pharyngeal lymphoid tissue has had a thorough trial under Crowe at Johns Hopkins The subject is one of great controversy This work has been imaginative, meticulously done, and laboriously followed up No such carefully recorded observations have been done in similar numbers of patients in order to determine hearing results obtained by the usual methods Such work would

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furnish a comparison of the results obtained by the use of radium and other methods, both experimental and standard

Having had unfortunate experiences with radium in its earlier application, I have been perhaps unduly concerned about the late effects of such radiation The recent reports have not tended to allay my apprehensions We must all decide what methods we employ on the basis of the results we ourselves are able to obtain The results we have attained at the Conservation of Hearing Clinic of Manhattan Eye, Ear, and Throat Hospital have not equaled the enthusiastic claims of others Perhaps the use of radium has had an unexpected good result in that the use of the nasopharyngoscope has become more popular It is assumed that no otologist would presume to apply a radium applicator to the nasopharynx before an examination with the nasopharyngoscope in order to determine whether or not the pathology exists which radium is supposed to correct There is also the danger of overenthusiasm affecting our scientific eyesight I have not seen the marked changes in the nasopharynx in the comparatively few cases I have examined who were treated with radium I have removed tonsils and adenoids which have been subjected to the radium treatment, and the radiation failed in its purpose However, in order to determine whether adenoid tissue is present, one must use the nasopharyngoscope intelligently and observe the results obtained at operation Such an examination, with proper records, will prove whether the adenoid growth appearing at a later date is a regrowth or a remnant It may also prove that the cause of a regrowth is a recurrent sinusitis It may also prove that the underlying factor of the recurrent sinusitis is an allergy If this is a byproduct of the investigation of radiation, the byproduct may have more far-reaching, beneficial effects than the main project

For some years the optional operations have been scheduled at a time when the upper respiratory infections were at a minimum This category includes tonsillectomy and adenoidectomy Our most propitious time seemed to be during the summer months Then came some rather dramatic pronouncements, which were properly publicized by interested agencies, regarding the increased incidence of poliomyelitis following tonsillectomy It seems that again statistics were made to paint a modernistic picture with distorted values The judgment was that not only the winter months but also the summer months were on the forbidden list for tonsillectomies The summer being the time of prevalence for polio, it was claimed to be advisable to discontinue tonsil surgery during the summer This leaves no time for tonsil surgery which is acceptable However, tonsil surgery must still be done Subsequent analyses have definitely shown that there is no added risk of polio to those children who have had a tonsillectomy Perhaps there remains some doubt regarding the bulbar type of case, but even this is questionable. We all agree that it would be hazardous to do optional surgery during an acute epidemic of any sort, and this statement includes any epidemic of poliomyelitis When there is a definite indication for removal of tonsils, those tonsils should be removed I still claim the surgical removal of tonsils and adenoids also acts as an important prevention measure in ear diseases, either of the infectious or the functional type

Sinusitis is frequently coexistent with hypertrophied and diseased tonsils and adenoids It is also a cause of recurrent adenoid tissue following adequate adenoidectomy Surgery on the sinus of a child is rarely necessary When I believe sinusitis is a cause of recurring lymphoid growth in the nasopharynx, I do at least one nasal treatment a day myself Occasionally, a mother will carry out treatment orders specifically, but, where one needs to be sure of the effectiveness of sinus treatment that by its effectiveness will produce an improvement in impaired hearing, it is better to do one treatment a day yourself and leave the rest, perhaps two or three treatments, to the mother A persistent sinusitis will be helped many times by a proper tonsillectomy and adenoidectomy when such operations are indicated

Tonsils seldom recur after they are properly removed, but adenoids do recur frequently following satisfactory surgical removal There is an explanation which sounds logical We are all familiar with the hypertrophied lymphoid streaks extending from the nasopharynx along the postpharyngeal wall medial to the posterior pillar of the tonsil I have always associated this condition with persistent sinusitis By posterior rhinoscopy, one can observe the nasopharynx and lateral walls around the fossae of Rosenmueller Similar growths or regrowths of varying sizes will also be found in these locations Surgical removal of this lymphoid tissue which is not followed by proper treatment of the sinuses is apt to be followed by a recurrence of lymphoid growth

Our adult patients with impaired hearing frequently give a history of recurrent continuous colds during childhood These recurrent colds suggest the third item in the causes of adult impairment in hearing It is a little early as yet to have brother otologists or other medical men accept the proposal that the recurrent attacks of upper respiratory disturbances arising from recurrent allergy attacks may be a major cause of progressive deafness, however, within my recollection, even the suggestion that allergy might

be the basis of some of our nose and throat diseases was dismissed with a sarcastic smile Today most otolaryngologists accept as a fact that allergy is at the root of much ear, nose, and throat pathology Therefore, in making the statement that allergy and impaired hearing may be in a "cause and effect" relationship, I realize how difficult it is, under present conditions, to accept it

I shall present for your consideration a few case histories from my private files to illustrate some of my statements I have not selected unusual cases, these are, for the most part, examples of the average

Case Reports

Case 1 —Suzanne F , aged seven and one-half, consulted me on February 18, 1947 Difficulty in hearing combined with repeated colds and sneezing attacks were the complaints A good removal had eliminated her tonsils Presumably, the pharyngeal adenoid tissue had been as competently removed Suzanne had many skin tests for allergy She showed a marked reaction to alternaria and a marked reaction to bananas Desensitization to alternaria plus allergen-elimination diet and local treatment produced this improvement in hearing

Case 2 —Joan S , aged nine, was a fat, apathetic, rather difficult child Her hearing was below the serviceable level. She was most uncooperative The nasopharynx was filled with adenoid tissue which had been subjected to previous surgery, and more was advised The nose was closed with blue-gray tissue, and the chunks were pus filled Her first visit was on May 13, 1947 Joan was sensitive to dust. She was desensitized Allergen-poor diet plus local treatment for the nose was used. The improved hearing which she obtained was accompanied by improvement in character On March 19, 1948, I have a note which reads, "The improvement in this girl's hearing has been rather phenomenal—her nose has entirely cleared under local and antiallergic methods for recurrent bad sinusitis Her whole personality has improved." Today Joan is quite a lady Her hearing chart shows her to be improved to within normal limits

Case 3 —Gail S , aged twelve, is probably the most dramatic case in this series Her complaint at the visit on December 28, 1945, was deafness in the right ear The duration was one year Small buried tonsils and pus in the nose were found in the physical examination A history of colds which lasted a long time made one suspicious of a sinusitis which the x-ray helped confirm Food elimination of the common allergenic ingestants plus local nasal medication put Gail back in the normal hearing group and reduced her disabling colds

Case 4 —Willie H , aged nine, was a physically underdeveloped boy of nine. Willie had a nice cooperative disposition, and he rewarded a doctor's best efforts with his appreciation I saw him first on February 6, 1948, and my letter to his doctor was, in part, as follows "Your very likable little Willie H has rather a pack of trouble I doubt that he has any hearing present at all in his right ear His left is diminished The right side of his nose is almost completely blocked by deflection of the nasal septum. The part of the nose that was not blocked was completely filled with pus

"I have started some treatment for his sinusitis, taken x-rays to determine its extent, and later will decide whether or not I think a submucus would be excusable at his early age I am afraid that nothing can be done for his hearing in the right ear, and our whole effort should be directed toward maintaining hearing in his left " My later note on May recommended a radical maxillary sinus operation and submucus resection These procedures were not done Diet, drops, and dumb luck did it again

Case 5 —There is no great loss of hearing in the case of Edward S , but his audiogram illustrates the type which I believe if unchecked would result in impairment later in life This boy is the only one with a discharging ear history He had frequent colds and recurrent ear involvement in the past, but both had improved during the current year His hearing was diminishing, and the school recommended a visit to his otologist I believe it saved Edward from an aural handicap Seven and one-half years was his age at the time of his visit August 12, 1948 The usual treatment brought a lowered hearing up to within normal limits

Case 6 —A tonsillectomy and adenoidectomy did the trick for this youngster K G was age seven at the time of the first visit on January 8, 1949 The patient had suffered from blocked nose and nasal discharge during January and December since the age of one There was occasional pain in the ears plus difficulty in hearing for the past two months The mother was a hay fever patient The nasal mucous membranes of the patient were pale As a first step in the cure, an adenoidectomy and tonsillectomy were done January 12, 1949 An audiogram taken February 12 (one month later) shows the quick recovery of hearing to within normal limits

Case 7 —Lois T , aged thirteen at her first visit on September 27, 1948, is the seventh and last of this series I am presenting She was sent from school with an impaired hearing record She had had difficulty in hearing since myringotomy at the age of seven. In my note to the referring physician I stated, "She has a slight impairment of hearing in the conversational area which I believe to be due to a low-grade sinusitis which has caused a hypertrophy of lymphoid tissue in her nasopharynx." Lois weighed 113¼ pounds on November 8, 1948, and on February 22, 1949, the weight was 123 pounds Her swollen adenoid tissue has subsided, and her sinuses have stayed clear She received 1 per cent ephedrine in normal saline as nasal medication and allergen-poor diet, and that is all The hearing is now within normal limits

Comment

These seven cases are samples of what can be done by medical, surgical, and allergic care in these patients Even adults have shown favorable responses when the impairment in hearing has not progressed too far

The real hitch in producing results is the failure to identify and take proper cognizance of the child with early hearing impairment The doctor has failed to place enough importance on slight hearing impairments in the young There is a psychologic factor which often makes a doctor shirk his responsibility We just hate to tell parents that their child is losing his hearing Action is needed on the first day any auditory impairment is noted Any involvement of the ear should be followed by repeated tests of the hearing function

The broader step is more important and involves unremunerative work of the most tedious order Every child of school age should have a hearing test on entrance to school, and these tests should be done annually as a matter of routine If this routine testing becomes just a part of some system to build up a pile of dust-covered records, then all efforts are wasted We went through this sanctimonious self-satisfying conscience soporific in New York State, piles and piles of pure statistics on which little action was taken to help the individual child We have now established a sufficient number of conservation of hearing clinics to do real work in solving the hearing problems of our individual patients And *this work must be on the individual basis in order* to obtain results Assembly line methods to accumulate statistics are worse than useless

"The hard of hearing problem"—we have that phrase so rubber stamped it does not occur to us that our next door neighbor and friend has a child who is the hard of hearing problem, probably not given proper attention until too late "They will grow out of it," you tell the patient Your sealed verdict may sentence that child to permanent hearing loss If you do not know what can be done for the aurally handicapped or potentially handicapped child, by all means find out

The congenitally deaf child is a continuing problem for all concerned It takes the finest type of parents to cooperate in a teaching program and the highest type of aurist to help the parents see it through Any attempt on the part of either the doctor or the parents to avoid responsibility will have unmeasurable adverse effects on the deaf child Unfortunately, the otologist in too many instances dodges his responsibility by trying to "pass the buck" in this unremunerative and time-consuming field Many times these children respond to understanding sympathies, and e traordinary results are produced It is well to r member that, even the deaf children can be ma self-supporting, they can enjoy social contact and they become agreeable companions if the are properly directed Some show an unexpecte ability to adjust themselves and overcome the handicap Means of communication must b furnished them, and their first instruction mus of course be along those lines

The usual child with impaired hearing is muc *better adjusted to his handicap if permitted t* continue with normal children The use of hearing aid, instruction in lip-reading, and an advantageous position in the classroom will enable these children to meet or exceed the performance of unhandicapped pupils in their age group Much depends on the teacher And this point should be carefully investigated before any school is recommended The unusual problems are best handled by individual instruction Small groups working with a competent teacher seem to progress most satisfactorily Like ourselves, the schools for the aurally handicapped are apt to fall behind, using outmoded, stereotyped methods, rather than taking advantage of the unbelievably rapid progress in methods to aid the aurally *handicapped* The development of speech for the deaf child is a major problem which is best managed by a competent speech teacher to whom small groups are assigned The association in small groups seems to give the individual patient courage and confidence

To obtain the maximum result with the hard of hearing child I only echo Wishart's opinion, "The otologist must approach the patient in the proper frame of mind, must have the means and environment for measuring hearing, must be prepared to examine the patient many times *before expressing* a final opinion, and must do the work himself "[1] In conclusion I will emphasize his thought and say that an otologist will not get the best results with his small patients who have hearing problems unless he does the work himself and treats them as individuals and individual patients

121 EAST 60TH STREET

Reference

1 Wishart S Laryngoscope 57 444 (July) 1947

WARN OF ILL EFFECTS FROM OVERDOSES OF ASPIRIN

A warning that aspirin acts as a poison when taken in too large doses is given by three Philadelphia doctors Excessive amounts of the drug have a toxic effect on the brain, kidneys, and other organs, Drs Bernard L. Lipman, Sidney O Krasnoff, and Robert A Schless point out in the October issue of *American Journal of Diseases of Children*

They report five cases of poisoning from overdoses of aspirin Three patients were children, and there were two deaths in the series

PEDIATRIC SUGGESTIONS TO REDUCE NEONATAL MORTALITY

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THE reduction of infant morbidity and mortality cannot be accomplished by pediatricians alone, since only about one fourth of all infants are under the medical supervision of pediatricians Although infant mortality rates have shown a remarkable decline in the last decade, the neonatal death rate has been reduced only 10 per cent from 1916 to 1934.[1] Of the total number of deaths during the first year of life, more than half occur during the first twenty-four hours, according to data compiled by the U S Bureau of the Census Therefore, a better understanding, by the obstetrician or any physician taking care of the newborn infant, of certain preventive aspects of modern pediatrics may materially reduce the mortality rate of the newborn The effects of the obstetrician will greatly influence the hazards during the first twenty-four hours and the ultimate prognosis The anatomic findings of the causes of fetal and neonatal deaths reported in some recent studies supply a basis for making recommendations on methods for reducing the number of these deaths [2–6]

Notwithstanding a remarkable fall in the mortality rate from prematurity, this condition represents still the chief cause of neonatal deaths in the United States It is responsible for from 19 1 to 49 5 per cent of neonatal deaths in the reports cited Although prematurity per se is not necessarily associated with high mortality rates, immaturity of various organs and of the temperature regulating mechanisms present a serious handicap To reduce mortality from premature birth, steps have been advocated to diminish the incidence of premature birth as well as methods for improving the care of the premature baby after birth Conservative obstetric practice is opposed to the performance of procedures which interfere with the birth of a viable infant, and it strives to prolong intrauterine life as long as possible Thus, the extra hazard of prematurity resulted in obstetric disapproval of early interference as a means for reducing erythroblastosis A six-months pregnancy complicated by placenta previa should not be terminated by cesarean section at this stage unless absolutely indicated to save the mother's life There are indications that low forceps and episiotomies often do less harm in premature birth than so-called normal deliveries

The cause of prematurity may be considered under four headings acute infections such as pneumonia, pyelitis, gonorrhea, chronic disorders such as heart disease and nephritis, inadequate diet of the pregnant mother, and obstetric complications The acute infections deserve far more intensive chemotherapy or treatment with antibiotics than has been the usual procedure heretofore Of the chronic disorders, competent medical care of the patient with cardiac conditions, hypertension, diabetes, etc should reduce the number of premature births The obstetric complications like premature rupture of the membranes, placenta previa, vaginal and cervical infections uterine fibroids, etc , require the exercise of mature judgment in balancing the danger to the mother's life against the danger of prematurity The figures on the influence of an inadequate diet in pregnancy on prematurity are impressive [6] The diet to be recommended should contain protein, 85 Gm or more, calcium, 1 5 Gm , phosphorus, 2 0 Gm , iron, 20 mg , vitamin A, 8,000 units, thiamine, 2 0 mg , riboflavin, 2 5 mg , niacin, 18 mg , ascorbic, 100 mg , and vitamin D, 400 to 800 units

In spite of all efforts to carry the pregnancy to full term, many will end prematurely The question arises How may the obstetrician aid in reducing the mortality and morbidity of the premature baby? Recommendations include determination of the size of the baby at the onset of labor, preservation of the membranes as long as possible, and episiotomy, elimination of inhalation anesthesia, morphine, scopolamine, and barbiturates, and the administration of vitamin K and oxygen to the mother during labor [7–9] Regional nerve block anesthesia has been shown definitely to offer the premature infant its best chance for survival [10] A heated crib for the reception of premature infants should be on hand The continuous administration of oxygen during the first hours after birth is advocated, and infection should be eliminated as much as possible by prophylactic chemotherapy The early administration of vitamins A, B, C, and K and the use of a half-skimmed, dried milk powder formula have materially helped in the feeding problems of the prematures [11,12]

Next to prematurity per se as a cause of death are respiratory conditions or anoxia [2–5] Deaths in 10 9 per cent of prematures and from 16 to 28 per cent of full-term infants resulted from massive aspiration of amniotic fluid, the higher figure in the latter group reflecting the longer, more difficult deliveries Asphyxia and atelec-

tasis are the chief concern [13,14] Abnormal conditions in the mother, as well as pathologic conditions in the infant, are mainly responsible for asphyxia

Certain positive recommendations can be made First, where the fetus is in obvious distress, early delivery is indicated Second, the use of oxytocics, sedatives, and morphine late in labor should be avoided Third, nitrous oxide should not be given unless 15 per cent oxygen is added [15] Fourth, if there is evidence of fetal embarrassment, oxygen should be supplied to the mother in high concentrations Fifth, every newborn baby should be held head downward—unless there is reason to suspect cerebral hemorrhage—while a careful toilet of the nose and throat is done with a soft rubber catheter and gentle suction Roberts, who found that the use of paraldehyde did not increase infant mortality, considers mechanical resuscitators of doubtful value "Positive pressure up to 16 mm of mercury with negative pressure to 9 mm of mercury is advocated Such pressure at times appears incapable of expanding the neonatal atelectatic lung and yet at other times seems sufficiently great to cause alveolar rupture and emphysema "[5] He depends on mouth-to-mouth resuscitation and occasionally on the endotracheal catheter Flagg advocated the use of an endotracheal catheter in the stage of flaccidity because the glottic structures are collapsed [16] The cathether is used for suction as well as administration of oxygen It may be inserted either under direct laryngoscopy or by palpation While Torpin states that 6 to 10 per cent of infants require such intubation, other investigators consider the method harmful and unnecessary [17] Gentleness and external warmth are advocated in all these procedures

Death in another 7 8 per cent of the prematures and 20 8 per cent of the full-term infants results from pneumonia [2-5] In the majority of the premature infants the cause is given as aspiration pneumonia This complication, resulting almost entirely from aspiration of milk, may be due in some measure to unskilled gavage but in great measure to the iniquitous habit of propping up the bottle in the crib As a consequence, the newborn, while feeding unassisted, may choke on the milk and suck in enough to produce a rapidly fatal aspiration pneumonia Careful attention to nursing details should serve to keep this group down to a bare minimum The other pneumonias are bacterial and are probably due to aspiration of infected amniotic fluid It seems reasonable to suppose that the routine use of penicillin in the mother after the rupture of the membranes would appreciably reduce the number of these bacterial pneumonias

The next most frequent cause of neonatal death is birth trauma, accounting for 12 8 per cent of the prematures and 23 9 per cent of the full-term infants [2-5] Intracranial hemorrhage may occur in spontaneous deliveries but usually results from trauma, asphyxia, or low blood prothrombin concentration Faber found a high incidence of prenatal factors responsible for cerebral injury in cases of cerebral atrophy [18] These children showed mental deficiency, spastic paralysis, or the convulsive state The factors responsible included placental separation, toxemia, Rh incompatibility, oversize infant, premature rupture of the membranes, maternal trauma, infectious disease, and many cases of difficult deliveries, breech deliveries, and abnormalities of the cord Prophylactic measures include better obstetric management and administration of vitamin K during labor

Congenital anomalies were responsible for *death in 6 5 per cent of the prematures* and 1 06 per cent of the full-term infants [2-5] The prevention of congenital anomalies has assumed increased importance in the past few years The susceptibility of embryonal tissue to virus infections is well known and the effect of rubella in the pregnant mother on the infant well established Among the serious disturbances are congenital cataracts, cardiac lesions, deafness, microcephaly, and mental retardation Deliberate exposure of older girls to rubella has been suggested with a view to producing immunity The significance of other infections in causing congenital malformations is doubtful, toxoplasmosis in the mother, however, may cause anomalies in the infant Other causative factors include pelvic radiation and nutritional deficiencies [18-23] Noxious agents affecting early embryonal development may cause mongolism [24] Hemorrhage, threatened abortion, intercurrent infections, mechanical disorders, and tumors of the uterus are mentioned among the causative factors All anomalies found in mongolian idiots appear to arise in the sixth to ninth week of embryonal development

While not all of these congenital malformations are preventable at present, the outlook for some of the affected infants has improved recently due to better surgical technic Early recognition of these defects, however, is imperative The most important ones affecting the gastrointestinal tract may be mentioned

1 Congenital atresia of the esophagus of which there are several varieties There is prompt regurgitation of attempts to swallow food, and fluids return through the nose and mouth. A simple examination by means of a soft catheter passed into the stomach will usually reveal the obstruction If roentgenographic stud-

ns are considered necessary, iodized oil rather than barium should be instilled into the upper egment There is usually gaseous distention of the stomach

2. Atresia and stenosis of the small intestine There is greenish-brown, often chocolate-like vomiting and cornified epithelial cells and lanugo are absent in the stools X-ray findings are characteristic There may be malrotation of the colon with the cecum on the left side, obstructions due to volvulus, or constricting peritoneal bands

3 Diaphragmatic hernia Characteristic signs include cyanosis, sunken abdomen, rapid respiration, dyspnea, and overdistended chest

4. Malformation of anus and rectum occur occasionally and should be diagnosed immediately, since an early operation is an absolute necessity

The influence of the mother's health and nutritional status on prematurity has already been discussed but must be adequately considered in the prevention of neonatal deaths in the full-term baby as well Thus, adequate antiluetic treatment, the skilled management of tuberculosis, cardiac and nephrotic lesions, frequent hemoglobin determinations, endocrine therapy when indicated, appraisal of the size of the fetal head by x-ray examination, and good obstetric management are all important factors The child of a diabetic mother needs special care in the regulation of the blood sugar of the pregnant mother and estrogen therapy where indicated [25]

The figures for neonatal death due to sepsis approach the vanishing point Many institutions now practice prophylactic administration of penicillin, especially to premature infants

Minimizing deaths from erythroblastosis requires a definite plan Rh testing should be done early in pregnancy, and the Rh negative mothers and those Rh positive mothers with a history suggestive of *erythroblastosis* should have a repeat Rh test and an Rh antibody titer test In questionable cases, titers should be repeated monthly and the other appropriate tests done. In addition, all newborns with jaundice within the first twenty-four hours, pallor, and splenomegaly should be investigated thoroughly So-called replacement transfusions have recently been used more extensively The indications should be clear-cut demonstration of antibodies in the mother's circulation, anemia, edema, jaundice, splenomegaly, hepatomegaly, and a high nucleated red cell count Diamond has described a mode of transfusion by using the umbilical vein by means of a special catheter which appears to be safer and easier than the older methods [26] Perhaps of more importance is good pediatric and nursing care of these infants, especially in regard to infection and aspiration [27] They should be treated in the premature nursery where greater emphasis is laid on the care of apathetic infants

The question of preventing infections in the nursery, notably the outbreaks of epidemic diarrhea and skin infections, is complicated and has received a great deal of attention Our knowledge of epidemic diarrhea of the newborn is limited, some investigations indicate a virus cause Steps to prevent infections as summarized from the "Standards and Recommendations for Hospital Care of Newborn Infants" of the American Academy of Pediatrics Committee on Fetus and Newborn include the following

1 Health examination of physicians, nurses, and auxiliary workers, including x-ray of the chest and bacteriologic cultures of nose throat, and stool

2 At least one graduate nurse supervising and at least one nurse or aid for each 12 full-term infants

3 One nursery for normal full-term infants, one or more suspect nurseries, and a proper isolation unit

4 Twenty to 30 square feet per bassinet with 8 to 12 bassinets in each full-term nursery and only six in suspect nurseries

5 Bassinet, bedside table with drawer, and a lower compartment, all together or as a single unit

6 Formula room with aseptic control and terminal sterilization

7 Prematures Six hours nursery care per twenty-four hours, should have at all times, day and night, nurses (or aids) in a ratio of one nurse for each four infants (for present emergency six infants allowed)

8 Separate premature nursery with separate provisions for infants born out of the hospital, for suspect infants, and for isolation

9 Premature nursery with no more than six bassinets with 30 square feet per bassinet

The interest of the obstetrician in physical equipment and facilities for the care of newborn infants is obvious In the construction of new hospitals, special attention is paid to the maximum number of bassinets allowed in one nursery on the principle that newborn infants should be in small groups and should have adequate space The avenues of cross-infection are being studied, and contact cross-infections by nurses, interns, attending physicians, mothers, and visitors can easily be reduced [28] Detailed recommendations should be studied by everyone interested in preventing infections in the newborn [29] To prevent airborne cross-infections, air conditioning, in order to dilute or eliminate contaminated air, and ultraviolet radiation, as well as glycol vapor, have been advocated and are now being studied [30] Premature infants thrive better in an atmosphere of relatively high humidity The optimum temperature is between 80 and 90 F , and a humidity of about 60 per cent is desirable Individual incubators with accurate control of temperature

and humidity which allow changing of the diapers and handling of the baby without opening the incubator will diminish airborne infections

So-called rooming-in arrangements where mother and baby are in the same room close to each other have obvious advantages because the mother learns to know her child better before her discharge from the hospital, the father may get acquainted with his child at an early stage, the mother is allowed to have her baby by her bedside as often as she desires, breast feeding is promoted, and the danger of communicable disease is lessened

There are several other preventive measures of interest to the obstetrician which may aid in reducing morbidity in infants Active sensitization of the infant by antigen transmitted through the placenta may occur quite frequently and has been demonstrated in animal experiments [31] Ingestion of food protein by the pregnant mother may be responsible for allergic reactions observed in infancy For this reason, the pregnant mother should limit her intake of allergenic foods such as eggs, fish, chocolate, nuts, etc

Another important problem the obstetrician may have to deal with is prenatal immunization against some contagious diseases of childhood While the newborn infant is immune against measles, poliomyelitis, diphtheria, and scarlet fever, he shows no resistance against tuberculosis, varicella, and whooping cough The long-standing belief that young animals respond poorly to antigens led to the delay of many active immunizations until the second half of the first year of life This would make it impossible to provide adequate protection against pertussis at a time when it is most needed Although a certain percentage of pregnant mothers exhibits antibodies against pertussis, the corresponding titer in their babies appears to be insufficient to confer immunity, and even after immunization this titer drops to zero over a period of several months [32 33] Prenatal immunization against pertussis has been performed by giving injections of pertussis vaccine during the last trimester of pregnancy [34] Whether the titer of these passively transmitted antibodies is sufficient to protect the baby against pertussis is questionable Studies are in progress to determine whether the presence of these passively transmitted antibodies will interfere with the active production of antibodies against Hemophilus pertussis and thereby cause postponement of active immunization until the latter part of the first year of life Another aspect of this problem, obviating the need for prenatal immunization, is the successful demonstration of active immunization of very young infants [35 36] These experiments seem to indicate that young infants are capable of producing antibodies against pertussis just as well as older children, especially if alum-precipitated vaccine, which affords prolonged antigenic stimulus, is used. The disadvantages of immunizing pregnant mothers against pertussis apply also to prenatal immunization against diphtheria The change of the immunologic state of the population against diphtheria is well known [37] Due to the decline in the number of diphtheria carriers a greater percentage of the adult population became susceptible to infection In this country about half of the newborn infants have protective titers against diphtheria, while in Sweden only 10 per cent are immune [38] Since, however, diphtheria is rare in young infants and, on the other hand, protective levels of diphtheria antitoxin may be attained by active immunization of young infants, no routine immunization of pregnant mothers can be advocated at this stage

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THE RELATION OF THE POSTCHOLECYSTECTOMY SYNDROME TO PSYCHOSOMATIC MEDICINE AND TO LATENT SUBCLINICAL FORMS OF CLINICAL DISEASE

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THE last decade has witnessed much discussion of the rather frequent recurrence of symptoms after the operative removal of the gallbladder These always include complete enumerations and discussions of the unfortunately common, operatively produced or other anatomic lesions which are discovered secondarily, as well as of the cases in which calculi are again demonstrated, found, and removed at subsequent operations While the results of all of this secondarily performed surgery have, in many cases, been brilliant, it, nevertheless, is in no sense a discussion of the symptom complex, which has been described under the term of the "postcholecystectomy syndrome" The discussion in this communication concerns only the latter

The postcholecystectomy syndrome includes symptom complexes in which (1) the manifestations frequently and commonly repeat with greater or lesser similarity those present before the cholecystectomy was done and (2) an indefinite array of symptoms referred to the right side or upper right quadrant of the abdomen which do not seem to be indicative of any distinguishable localized intra-abdominal lesion Clinical study by means of physical examination and by all methods of laboratory examination yield no enlightening data. One is left with many symptoms for which no adequate anatomic or functional cause can be found This is what is meant by the postcholecystectomy syndrome

It is manifestly true that, when such symptom complexes appear or reappear after cholecystectomy, under the conditions just defined, somewhere along the path of original study a mistake has been made and the presenting symptoms have been wrongfully correlated with gallbladder disease In this connection it is very true that (1) not all radiographically demonstrable gallstones are productive of symptoms in general and of the individual subjective symptoms of the given patient in particular, (2) some of the cases without calculi or other demonstrable anatomic lesion before the primary cholecystectomy may be cases of gallbladder and biliary tract dysfunction which possibly can, and do, produce subjective symptoms, and (3) the latter group may, and probably do, include cases with latent or subclinical forms of hepatic—cellular or interstitial—disease (*vide infra*)

Clinical experience, as determined by adequate follow-up studies, indicates very strongly that the "postcholecystectomy syndrome" symptoms very rarely, or perhaps never, have occurred when the primary preoperative lesion has included anatomic evidences of acute and chronic infection, and the more marked this has been, the more true is this statement These are the cases which give the best and most reliable results after cholecystectomy

One must study the patient from every angle when the postcholecystectomy syndrome is present In cases with this clinical picture, i e , when no adequate anatomic lesion is demonstrable, one is forced to conclude many times, at least until further observation possibly demonstrates otherwise, that there is a psychiatric background for the manifestations and that the patient is in need of psychotherapy As knowledge of psychosomatic medicine accumulates and is applied to some of the constantly occurring problems of this kind, manifold examples are found in which emotional conflicts have been very important items, and to these it behooves one to pay sufficient attention There is much in psychosomatic medicine and in psychiatry today to corroborate this viewpoint

This group of cases undoubtedly includes instances—I cannot say how many or how often—of latent or subclinical forms of hepatic cellular or hepatic interstitial disease And for these one must constantly be on the lookout, for the powerfully important reason that for them modern forms of therapy are productive of greater good and, possibly, of cure at this subclinical stage than at later stages This is one of the accomplishments of modern medicine and did not seem possible ten or twenty years ago The notes of the following case are very pertinent here

Case Report

In 1933, when this married, Para 2 woman was in her early fifties, she was ill with a form of nephritis, the nature of which I do not know, and from which she presumably recovered

In 1936, she exhibited symptoms, referable to the upper right quadrant of the abdomen, which were roentgenographically and laboratory wise correlated with gallbladder calculus disease without signs of

* Dr Wilensky died on February 4 1949 Therefore only editorial corrections have been made on this manuscript

any acute or chronic infection I operated on her at that time, and the operative findings included (1) a thin-walled gallbladder containing a large number of small cholesterol and biliary calculi, (2) an extrahepatic duct system which was negative to palpatory exploration, and (3) a beginning hob-nailing of a relatively normal sized liver The pancreas and associated lymph nodes were also negative The spleen was not enlarged and was presumably considered not otherwise altered The rest of the abdominal cavity and its contained organs were also negative to exploration

The matter was taken under advisement, and the situation was explained to the patient However, in the profundity of our therapeutic lack of knowledge at that time, nothing further was done Following a relatively easy and uncomplicated recovery from the cholecystectomy, the patient felt relatively well for the next ten years

In 1946, the woman developed an anemia of the secondary type, and it was discovered that she was passing large amounts of blood in the stools A large hard liver and an enormous spleen were easily palpable For the next two years the symptoms and signs progressively increased until she finally died The diagnosis was Banti's disease with splenomegaly and hepatic cirrhosis Unfortunately, no postmortem examination was permitted

Comment

It is undoubtedly true that the final illness was the progression of the liver lesion which was found at the primary exploration in 1936 It is equally true that the original diagnosis was not altogether correct and that whatever symptoms she presented at that time were not entirely due to the gallbladder stones but to a subclinical stage of the disease from which she finally died twelve years later

It is not always possible to find such gross structural evidences of hepatic disease at the primary exploration When present, they are generally mild, have, perhaps, to be passed over, and/or are held of little significance Unfortunately, they are commonly considered not worthy of further study, concern, or therapeutic application

Nevertheless, in all postoperative cases with this syndrome, the factor of an underlying subclinical form of hepatic parenchymal or interstitial disease must be considered It follows that in the absence of the signs of acute or chronic infection all preoperative cases also carry the suspicion of the possibility of a similar latent hepatic disease It becomes obligatory, therefore, for us to deny or establish such disease in every case both before and after cholecystectomy so that proper precautions and therapeutic measures may be taken

At the present writing, subclinical or latent forms of liver disease only show indications of their presence by disturbances of liver function No one method seems to answer the clinical purpose, and no single determination is of any diagnostic use What is needed is a series of consecutive determinations of liver function by more than one method inasmuch as all are not of equal accuracy Should evidence of latent or subclinical hepatic disease be shown by these means, the patient must be informed of the existing state of affairs so that proper modern methods of therapy may be employed The latest experience has demonstrated that the progress of the disease may be halted, and a cure may possibly follow

Summary

The postcholecystectomy syndrome includes the patients who have a frank recurrence of their precholecystectomy symptoms or of other indefinite symptoms referred to the right side or upper right abdominal cavity The postcholecystectomy syndrome seems to be proof that the original diagnosis was an error The patients fall into two categories those who seem to have a psychosomatic background for their symptoms and those with subclinical or latent forms of hepatic cellular and/or interstitial disease The recognition of the latter is important because at this state modern therapy seems to be able to do very encouraging things

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RESEARCH FIXES LIMITATION OF MAN'S ALCOHOL CAPACITY

Any one on a daily ration of a quart of 100 proof whisky would show obvious signs of intoxication, says an editorial in the August 13 *Journal of the American Medical Association*

The editorial is a commentary on man's capacity for alcohol and is based on a recent study by Dr Henry W Newman of the Stanford School of Medicine, San Francisco Dr Newman for the first time presented an accurate standard of human capacity for the consumption of alcohol

His research indicated that a man weighing 154 pounds can metabolize (convert into energy) about 26½ ounces (about one fifth) of 100 proof whisky in 24 hours Any definite increase in this amount would raise the alcohol content of the blood and brain to a point where coma would supervene This limit could be exceeded only for a brief period, probably a matter of hours

It is also stated that the idea that habituation produces increased facility in metabolization is not supported by scientific evidence Large and heavy persons can consume more but merely on account of their bulk and not because of any increase in ability to metabolize alcohol

Case Reports

COXITIS DUE TO ESCHERICHIA COLI

W R PETERSEN, M D , Albany, New York

(From the Edward J Meyer Memorial Hospital, Buffalo, New York)

THE case to be reported below is the fourth recorded since 1936 in which Escherichia coli is the cause of a destructive arthritis of the hip [1–3] Three of the four cases, including the one below, were known to have had urinary infection due to E coli, presumably as the primary infectious focus

Case Report

K. L., a sixty-seven-year-old white man, was admitted to the Edward J Meyer Memorial Hospital on April 21, 1948, complaining of increasing pain in his right hip, which had never been able to take his full weight since a fracture and subsequent operative treatment at Cook County Hospital in 1943 Functional inquiry revealed frequency of urination, nocturia, and dysuria, present for eighteen years and progressive

Physical examination revealed a moderately ill, elderly white man, temperature 100 4 F , pulse 110, respirations 24, and blood pressure 160/100 Positive findings included rales in the bases of both lungs, an enlarged heart, distention of the bladder, and benign prostatic hypertrophy The right hip presented a long, curved anterolateral scar, marked swelling anterior to the joint, semifluctuant and mildly tender to pressure, and marked pain on attempt at active and passive motion in any direction There was an external rotation deformity and 2 inches shortening of the right lower extremity Pretibial edema was present bilaterally

The right leg was placed in Buck's extension, and an indwelling catheter was inserted into the bladder. Parenteral Ringer's solution and plasma were given daily for uremia Aspiration of the right hip produced 150 cc of bloody pus Penicillin was then given while awaiting the result of culture The pus, as well as blood and urine, yielded a short, gram-negative bacillus on culture which produced much mucoid material and which was identified as a modified E coli [4]

The organism was found to be sensitive to streptomycin, but the drug could not be given because of progressive uremia On May 6, 1948, incision and drainage of the right hip was done under local anesthesia An incision made directly anterior over the hip joint entered a huge abscess beginning about 1 inch from the skin The abscess extended high into the pelvis posteriorly and down to the lesser trochanter and adductor region inferiorly About 1 L of slimy blood, pus, and debris, and a bony spicule were removed. The head of the femur was palpated and found to be devoid of soft tissue attachments anteriorly The upper end of the metallic fixation agent was in the abscess cavity The day after incision, profuse drainage of another liter from the abscess necessitated change of dressing Later on the same day the patient expired

Laboratory findings were as follows Urinalysis —specific gravity 1 015, albumin 1 plus, no sugar,



FIG 1 Note necrotic head, narrowed joint space, and nonunion of fracture

many pus cells, blood urea, 98, 111, 206, 241, carbon dioxide combining power, 22, hemoglobin, 6 8 Gm , red cell count, 3,000,000, Wassermann negative, serum protein 6 6 per cent Figure 1 is an x-ray of the right hip

An autopsy was done on this patient The kidneys and renal pelves were found to be the site of an active chronic ascending pyelonephritis with multiple scars, destruction of renal parenchyma, and slimy pus secondary to prostatic obstruction of long duration There was an abscess of the right psoas muscle, extending to the muscle origin at the lumbar spine, distinctly separate from the right kidney and ureter and extending inferiorly to the hip joint, greater and lesser trochanters, and the adductor region of the thigh The abscess measured 38 by 7 by 6 cm The old fracture was ununited The cartilaginous surface of the head was irregularly eroded and covered with much purulent material Postmortem cultures of the abscess and renal pelves produced the same organism as antemortem cultures

Comment

This patient probably developed his septic process in the right hip region at some time after his early postoperative period. He undoubtedly had a latent chronic pyelonephritis with recurrent exacerbations and occasional bacteremia The injured and operated hip was a locus minoris resistentiae where the metastasizing organism could create an active low-grade infection The low virulence of the organism and the resistance of the host due to prolonged urinary infection with the same organism allowed the infectious process to develop gradually, probably over a period of months or years The same factors also are assumed to have modified an organism which was originally a typical E coli The patient did not seek medical care until his last hospital admission when progressive renal destruction with uremia allowed his other disease process to develop more rapidly and become acutely symptomatic

At his last admission, the renal changes were irreversible Streptomycin could not be used Blood donors were unobtainable Incision and drainage of the abscess and urologic treatment were too late by months or years

Summary

A case of coxitis due to E coli is reported with autopsy findings and discussion of course and probable mechanism of the disease process

380-B Hackett Boulevard

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PRIZE ESSAYS

The Merrit H Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 8, 1950, in New York City

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Armitage Whitman, M.D , *Chairman*
Committee on Prize Essays

FULMINATING MENINGOCOCCEMIA (WATERHOUSE-FRIDERICHSEN SYNDROME) WITH RECOVERY

R. WILLARD BRAND, M D , Clifton Springs, New York

(From the Medical Service of Clifton Springs Sanitarium and Clinic)

SOME 25 cases of recovery from the so-called Waterhouse-Friderichsen syndrome have been reported in the literature [1-6] The term Waterhouse-Friderichsen syndrome was applied originally to the postmortem observation of bilateral adrenal hemorrhages in cases of fulminating infection having widespread purpuric rash and signs of circulatory failure The causal relationship between the adrenal hemorrhage and the clinical shocklike picture seemed apparent However, Williams observed adrenal hemorrhage at autopsy in only nine of 17 fatal cases clinically indistinguishable from this syndrome [7] Furthermore, in view of the increasing number of recovered cases reported it seems permissible to infer that all patients presenting the clinical characteristics of fulminating sepsis, purpuric rash, and shock do not necessarily have bilateral adrenal hemorrhages The syndrome should, therefore, be regarded as potentially reversible by proper treatment This case is presented as an example of complete recovery from severe and prolonged shock occurring with fulminating meningococcal infection.

Case Report

History —A forty-nine-year-old housewife was admitted on April 27, 1946 Three previous admissions between April, 1931, and August, 1945, had been for acute pyelitis, appendicitis, and peptic ulcer, recovery from each of these conditions having been satisfactory Previously feeling well, the patient was awakened about 4 00 A.M of the day of admission by a severe, shaking chill, nausea, and vomiting She was seen soon after by her family physician, who reported finding no abnormality other than an oral temperature of 101 F She was given 1/4 gram of morphine, after which she went to sleep Later that morning she complained of moderate headache and pain and soreness in the joints She was brought to the hospital that afternoon because she could be aroused only with difficulty

Physical Examination.—On admission, about twelve hours after the initial symptoms, her temperature was 105 6 F , pulse 110, respirations 35, no blood pressure could be obtained The patient was semicomatose and in lucid intervals complained of generalized aching and soreness The entire body was covered with petechiae varying in size from pinpoint to 0 5 cm in diameter Her pupils were pinpoint A mucopurulent discharge was seen in the pharynx petechiae were noted over the soft palate The ears were normal The neck was supple, no Kernig sign was present, the reflexes were normal The lungs were clear and resonant, the heart was normal except for sinus tachycardia, and the abdomen was not remarkable Later, cyanosis and Cheyne-Stokes breathing developed. Further petechiae appeared, and purpuric areas developed over the entire body, those on the legs becoming confluent, extending over areas as large as 15 by 20 cm by the second day The patient had to be restrained because of extreme restlessness Peripheral circulatory collapse was severe, and considerable difficulty in starting intravenous therapy was encountered. Stiffness of the neck did not develop until twenty-eight hours after the onset of the initial chill

Laboratory Studies —The initial laboratory studies revealed erythrocytes 5,190,000, hemoglobin 15 1 Gm , leukocytes 8,400, with 70 per cent neutrophils, 27 per cent lymphocytes, 2 5 per cent monocytes, blood sugar 130 mg per cent, and urea nitrogen 18 mg per cent Voided urine showed specific gravity of 1 020, a trace of albumin, and occasional red and white cells per high powered field The spinal fluid was cloudy and contained 5,000 leukocytes with 90 per cent polymorphonuclears Gram-negative, intracellular diplococci were seen on direct smear, a culture later revealed them to be meningococci. The spinal fluid sugar was 20 mg per cent On the second day of admission the white count was 29,100 with 76 5 per cent neutrophils and 22 per cent lymphocytes, 1 per cent monocytes, and 0 5 per cent basophils A catheterized urine specimen showed a specific gravity of 1 017, albumin 2 plus, occasional red and white cells per high powered field, and 3 to 4 finely granular and hyaline casts per high powered field The urine culture was negative A blood culture, not obtained until after chemotherapy was started, was sterile

Treatment —The patient was started on penicillin, 50,000 units intramuscularly every three hours and also received 4 5 Gm of sodium sulfadiazine intravenously, as well as adequate amounts of intravenous saline and sodium lactate solution The penicillin was continued through the eighth day, and the sulfadiazine was continued orally for thirteen days, a dosage of 0 5 Gm every four hours becoming sufficient to maintain an average blood level of 8 mg per cent During the first twenty-four hours the patient received a total of 50 cc of adrenal cortical extract intravenously, during the same time intravenous fluids were administered almost constantly Sufficient fluid intake was accomplished orally after forty-eight hours, and the urinary output was never below 2,000 cc per twenty-four hours during the first ten days of therapy and remained normal thereafter

Course —The patient's blood pressure remained unobtainable for twelve hours after admission but gradually rose to normal in the next twenty-four hours The temperature fell to 100 F in the first twenty-four hours and then fluctuated between 99 and 101 F for two weeks, finally remaining consistently normal during the third week and thereafter For the first seventy-two hours the patient was restless and intermittently irrational. In lucid intervals she complained of severe headaches, generalized aching, and hyperesthesia throughout the body Oxygen was necessary to combat cyanosis from the third through the fifth day Signs of moderate pulmonary congestion appeared on the second day associated with dyspnea, cough, and occasional blood-tinged sputum which contained only a few nonpathogenic organisms A chest x-ray on the fifth day showed moderate passive congestion

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Armitage Whitman, M D , *Chairman*
Committee on Prize Essays

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R WILLARD BRAND, M D , Clifton Springs, New York

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only The lungs became free of rales on the sixth day, and the respiratory rate was normal thereafter A systolic, apical murmur was first heard on the seventh day and remained for ten days At no time did signs of pericarditis develop An electrocardiogram on the eighth day showed slight right axis deviation and low but upright T waves in all leads

Herpes labialis developed on the fifth day and was quite extensive and troublesome for several weeks On the ninth day a few soft, tender nodules were noted on the extensor surfaces of the arms and legs More nodules appeared in the next two days involving the extremities chiefly, but also present over the breasts They were red, firm, very tender intracutaneous nodules varying from 1 to 3 cm in diameter They gradually subsided in the next week. Their appearance coincided with painful but not swollen ankle, knee, elbow and wrist joints The gradual disappearance of the nodules coincided with the beginning of a steadily normal temperature on the fifteenth day of the illness All joint symptoms had disappeared by the twenty-fifth day At no time was there any joint swelling The patient had not received any serum therapy The patient first complained of deafness and vertigo on the fifth day, and these symptoms persisted for three or four weeks Examination one month after the onset of her illness revealed only slight perception deafness bilaterally Three weeks later, the hearing was perfectly normal

A follow-up examination two months after the onset of the illness revealed an asymptomatic, healthy appearing woman The skin was entirely clear except for a small, subsiding remnant of herpes on the lower lip The blood pressure was 126/82, and complete physical examination was entirely normal. An electrocardiogram at this time revealed slight right axis deviation, a broad and notched P_2, P-R interval of 0 18 second, inversion of T_1 and T_2, a small C_3, and a low R_4 Blood count and urine analysis were normal A repeat electrocardiogram two months later was normal and similar in every respect to a routine tracing which had been taken a year prior to this particular illness Three years after this illness, the patient reported continuing excellent health.

Comment

The cause of circulatory failure in this syndrome has been assumed to be due mainly to acute adrenal insufficiency Since it has been established that the plasma volume is decreased in Addisonian crisis (adrenal insufficiency), a similar mechanism might be expected to account for the shock in the Waterhouse-Friderichsen syndrome [8] However, Kinsman *et al* reported three cases in none of which was there hemoconcentration characteristic of decreased plasma volume.[4] Ebert and Stead, studying cir tory failure occurring in cases of acute sepsis, f normal hematocrit and plasma volume va They concluded that the circulatory failure in cases does not have the same mechanism as of hemorrhage or traumatic shock because plasma volume is not decreased It is prol *that the circulatory failure in acute infectio* produced by failure of the entire cardiovas system through widespread damage by the infec Supporting this view is the study of cutaneou sions in acute meningococcemia by Hill and Ki who state that the fundamental pathologic le in the skin is diffuse vascular damage and that widespread vascular change is also found throug the serous surfaces and in other organs of the bo

It is, therefore, probable that the circula collapse in acute sepsis is due primarily to a w spread injury of many tissues, in particular, t of the cardiovascular system. The toxic effec infection produce disturbances in cell metabo throughout the body, and the circulatory failu secondary to the general failure of metabol Improvement in the circulation occurs when infection is brought under control

The recognition that this formerly fatal clu syndrome may now be reversible with the ad of chemotherapy places a premium on prompt d nosis and the institution of antibacterial therap

Summary

1 A recovered case presenting the charac istics of the Waterhouse-Friderichsen syndrom described

2 Attention is called to the possible mechan of the circulatory failure in this syndrome and potential reversibility with prompt treatment

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TREAT VASCULAR DISEASES WITH HISTAMINE PREPARATION

Favorable results in treating patients for two types of vascular disease with injections of histamine in wax and sesame oil are reported by Drs S Feldman and J M Linder and I J Greenblatt, Ph D, of Brooklyn, in the September 24 *J.A.M.A*

The preparation was used for 30 patients with arteriosclerosis obliterans, for 41 patients with diabetes and arteriosclerosis obliterans, and for 13 patients with Buerger's disease Nine patients we treated for miscellaneous disorders, including va cose ulcers and fractures of the legs

Of 72 patients with lameness, 41 showed defini improvement, *the doctors say After the patien* had received a course of the histamine preparatio complete cessation of pain was observed in instances

ELECTROCARDIOGRAPHIC CHANGES IN MALARIA

IRVING GREENFIELD, M D , F A C P , Woodmere, New York

ALTHOUGH malaria has been considered a systemic disease, observations of the cardiac complications of this disease are sparse. From a review of the literature, it is evident that considerable controversy exists as to whether or not the heart is affected adversely by the malarial parasite Pathologists have observed abnormalities in the vessels of the myocardium Ewing observed capillaries in the myocardium distended with young parasites and pigmented cells.[1] Dudgeon and Clarke and Merkel recorded sudden death from cardiac failure and found degenerative changes in the myocardium, as well as infarcts in the myocardium.[2,3] The latter suggested that the condition behaved like any other form of coronary artery occlusion clinically Rojas and Deza observed thrombi made up of destroyed erythrocytes and parasites in various stages of evolution in the capillaries of the myocardium.[4] After recording the electrocardiographic changes present prior to the institution of therapy, they observed a favorable response in most of the cases soon after treatment was started Sprague studied the electrocardiograms in a series of 50 patients with recurrent malaria and observed no abnormalities in the tracings which could not be considered either within the normal variants or of nonspecific import [5] In a previous communication, attention was called to the case of a twenty-two-year-old marine, who, following three proved attacks of malignant tertian malaria, developed quintigeminal rhythm and heart block [6]

In view of the fact that pathologists have observed abnormalities in the vessels of the myocardium as well as in the myocardium itself and in view of the controversy which exists among clinicians concerning the effects of malaria of the heart, the occurrence of precordial discomfort, together with electrocardiographic changes following an attack of vivax malaria, is considered sufficiently unusual to warrant the following case report

Case Report

A thirty-year-old white man who had served in the tropics of the South Pacific for two years gave the following history He had dengue fever in 1944. Shortly thereafter, he had his first attack of malaria. His second attack was in April, 1946, after he had discontinued suppressive therapy (atabrine) During this episode Plasmodium vivax was again identified in the blood smear The attack was treated with atabrine, and recovery was uneventful. Routine examination in July, 1948, revealed no abnormalities. The electrocardiogram including, in addition to the standard limb leads, CF_2, CF_4, and CF_6, is reproduced (Fig 1A) In brief, it is a normal electrocardiogram, save for some splintering of the main complex lead 3

In August, 1948, following a period of intense excitement, he had a chill which lasted about twenty minutes, followed by fever and sweat The physical examination at this time was entirely normal The spleen was not enlarged The heart tones were normal. The systolic blood pressure in mm. of mercury was 110, and the diastolic was 70 Blood smears revealed the presence of Plasmodium vivax Atabrine was again given On the third day the patient developed precordial lancinating pains, felt chilly, broke out into a sweat, and complained of weakness He had no chill, and there was no elevation of temperature. There was no significant drop in his blood pressure Malarial parasites were again present in the blood smear There was no significant change in the leukocyte count. An electrocardiogram taken at this time revealed depressions of the T wave in leads 1, 2, CF_2, CF_4, and CF_6 (Fig 1B) The entire contour of the complex in lead 3 had changed. R was small, S was the predominant deflection, ST was isopotential, and T was inverted With bed rest the symptoms subsided After six weeks the electrocardiogram (Fig 1C) had returned to the control (Fig 1A) pattern The hemograms are recorded in Table 1

The parasites were seen in the smear on four occasions as noted (Table 1) during August, 1948. No parasites were seen in the smears examined after August 26, 1948. At no time was a pericardial friction rub heard

A teleoroentgenogram taken on the same day as the electrocardiogram was normal (Fig 2)

Comment

There are several points of interest in this case presentation The onset of the clinical picture, which the patient recognized as identical with those symptoms which he had while in the tropics, as well

TABLE 1.—LABORATORY DATA

1948	Aug. 12	Aug 14	Aug. 16	Aug. 26	Sept 17	Sept 23
Hemoglobin	114%	118%		108%		103%
Red blood cells	5 000 000	4 900 000	4 810 000	5 000 000	4 940 000	4 910 000
White blood cells	7 450	8 300	9 450	6 900	10 100	8 350
Polymorphonuclears	56	53	53	54	55	48
Lymphocytes	32	41	38	39	39	43
Monocytes	7	1	2	3	2	2
Eosinophils	2	2	2	2	1	3
Juvenile cells			1			1
Stab forms	3	3	4	2	3	3
Basophilic stippling	++	+	+	+	0	0
Parasites	++	+	+	+	0	0

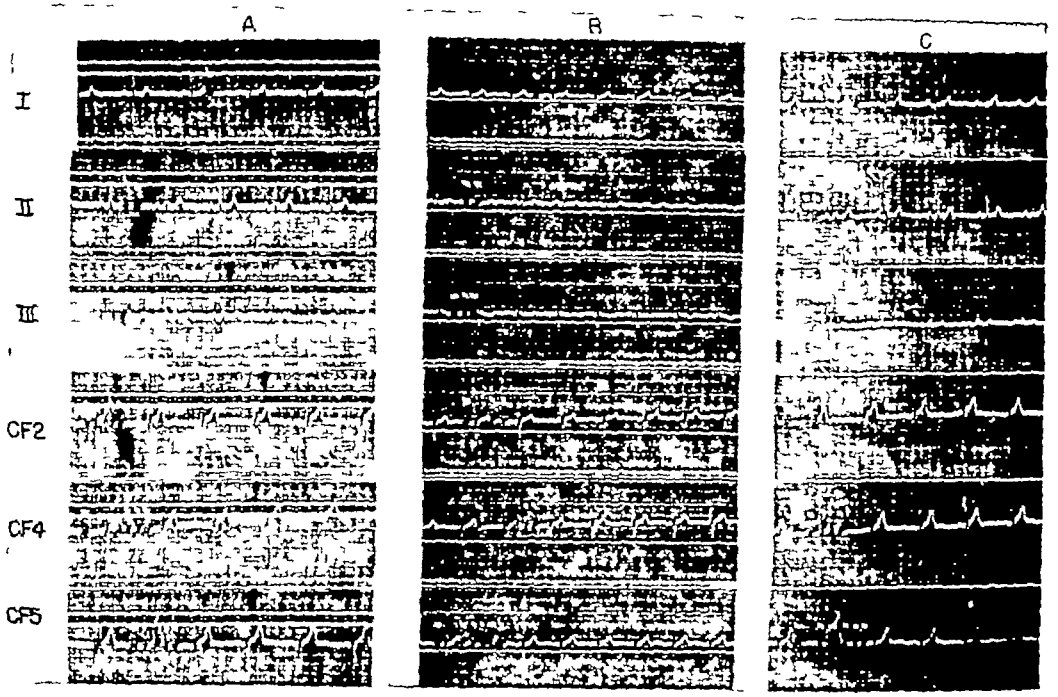


FIG 1 Electrocardiograms taken as indicated T waves in all leads of B are of lower voltage than they were in control (A) In lead 3, the T wave is inverted (C), taken six weeks after (B), shows a return of the T waves to the control amplitude

as those which he had soon after he discontinued suppressive therapy, was striking The patient was involved with labor-management problems in a large plant After five days of excitement, the chill appeared, and the smear was positive for *Plasmodium vivax*. There was no exposure to malaria other than that noted while the patient was on tropical service

On the third day after the onset of the clinical symptoms in the recent episode, pain in the precordium appeared, followed by chilly sensation, sweat, and weakness At this time the white cell count was elevated to 9,450 cells There was no significant change in the differential count The number of cells containing parasites and the number of cells with basophilic stippling had diminished The electrocardiographic changes involved the T waves in all the leads The contour of the main complex in lead 3 was changed completely, and T_3 was inverted After a period of bed rest the configuration of the electrocardiogram reverted to the control pattern

In order to rule out the atabrine as the causative factor, the patient was given therapeutic dosage of this chemical following the lapse of an adequate interval Electrocardiograms were taken to ascertain whether that chemical agent was responsible for the electrocardiographic changes noted. They differed in no way from that recorded in Fig 1C, and

Summary

1 A case of malaria with electrocardiographic changes is recorded

2 Since the electrocardiographic changes noted



FIG 2 The teleoroentgenogram, taken on October 17, 1948, is essentially normal

were not reproduced following a second administration of atabrine in the absence of malaria, it is reasonable to eliminate atabrine as a causative agent

3 In the absence of any other explanation for the symptomatology and the electrocardiographic changes recorded, it is reasonable to assume that the heart muscle changes resulted from malarial thrombi in the myocardium

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DEATH IN A CASE OF BRONCHIAL ASTHMA TREATED SUCCESSIVELY WITH INTRAVENOUS PROCAINE AND SODIUM AMYTAL

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(From the Fourth Medical Division, Bellevue Hospital, and New York University College of Medicine)

RECENT years have witnessed a great enthusiasm for the use of intravenous procaine in many fields of medicine The fact that the liver can rapidly detoxify procaine has led many observers to feel safe in employing relatively large amounts of this drug Although toxic reactions from intravenous procaine have been noted, many thousands of such injections have been given without any serious mishap Recently a fatality following the successive use of procaine and sodium amytal intravenously in a chronic asthmatic was encountered and is herewith reported

Case Report

A. H , a fifty-four-year-old man, entered Bellevue Hospital on November 12, 1948, complaining of marked dyspnea, orthopnea, paroxysmal episodes of cough, and weakness of one week duration He visited his local physician on the morning of November 12 and was given 0 5 cc of adrenalin (1 1,000) without any benefit He was then referred to Bellevue Hospital where, in the emergency room, he received 20 cc of aminophylline intravenously There was no alleviation of his asthma, and so he was admitted to the ward for further study

The past history disclosed that in August, 1943, the patient sustained multiple rib fractures with depression of the sternum complicated by a right middle lobe pneumonia Several months after this injury, bronchial asthma of the perennial type developed There was no family allergic history Skin tests performed at the allergy clinic revealed positive reactions to many inhalants and foods but no evidence of infection It was also noted that the fumes emanating from the taxi which he operated initiated an attack In August, 1948, he spent three weeks at Bellevue Hospital for an episode of intractable asthma, with recovery

Physical examination revealed a well-developed and well-nourished adult white man in acute respiratory distress with slight cyanosis and marked apprehension His pupils were equal and regular and reacted to light and accommodation The external ocular movements were normal, and the fundi failed to disclose any evidence of hemorrhages, exudates, or papilledema His nose and throat were normal. There were no masses in the neck, and the thyroid was not palpable His chest was emphysematous and symmetric Cardiac dullness was not enlarged, and the heart sounds were distant The rhythm was regular, and there were no murmurs or thrills. The rate was rapid, and the blood pressure was 160/100 The lungs revealed numerous inspiratory and expiratory wheezes with many sibilant and sonorous rales throughout There were no palpable masses or organ edges felt on abdominal examination Rectal examination revealed a small prostate with no masses The extremities disclosed no evidence of edema or inflammation Homan's sign was negative

Urinalysis, hematologic study, and blood chemistry findings failed to reveal any abnormal findings The venous pressure was 120 mm. of water, and the decholin circulation time was eight seconds.

Procaine hydrochloride solution, 0 2 per cent, was prepared by dissolving 1 Gm. of procaine in 500 cc of normal physiologic saline, and an intravenous infusion was begun at 4 00 P.M. on November 12 1948, at the rate of 45 drops per minute The blood pressure reading, pulse rate, respiratory rate, and subjective and objective signs were recorded every fifteen minutes It was noted that the pulse remained between 120 to 140, and the original blood pressure of 160/100 dropped to 138/78 at 6 45 P M and then rose again to 170/110 at 7 00 P M and at 7 15 P.M. The patient felt considerably relaxed and appeared comfortable with decrease of cyanosis and dyspnea. However, at 7 15 P.M., after 250 cc of the infusion had been given, the patient complained of dizziness and a metallic taste in the mouth He became markedly agitated, excited threw himself about jumped out of bed, and it

required four men to put him back At this time his pulse rate was 160, respiratory rate 22, and blood pressure 170/110 The infusion was immediately withdrawn, and, while he was held down, 0 5 Gm. of sodium amytal was given intravenously Within a few minutes the patient calmed down somewhat and dozed slightly Suddenly he again attempted to jump out of bed, became markedly agitated, cyanotic, breathed heavily, and expired

Comment

The failure to respond to the conventional therapy for bronchial asthma, such as oxygen, adrenalin, and intravenous aminophylline, always causes considerable concern and leads one to search for another method of treatment The use of intravenous procaine for bronchial asthma is not without precedent The French medical literature is filled with favorable reports concerning the beneficial effects obtained with intravenous procaine in chronic bronchial asthma However, in this country, there is only an occasional mention of its use State and Wangensteen treated 27 cases with intravenous procaine without any untoward reactions, and of this group only one was a case of bronchial asthma [1] No benefit resulted in the latter patient from such therapy, but in their other instances of hypersensitive states considerable amelioration of symptoms occurred In the cases treated by Rovenstine at Bellevue Hospital, there were several patients with bronchial asthma who received intravenous procaine without success [2] Appelbaum, Abraham, and Sinton, employing the technic suggested by State and Wangensteen, obtained an excellent result in a case of serum sickness following tetanus antitoxin [3] Delayed reactions to penicillin were successfully treated by Dressler and Dwork and Rossellini and Van Rooy [4,5] Thus it was thought worth while to attempt this method of therapy for this patient, who presented symptoms of status asthmaticus uncontrolled by the usual regime

Procaine owes its therapeutic success to a multiplicity of actions of which the major one is the ability to paralyze the sympathetic nerves, producing smooth muscle relaxation and vasodilatation Harvey has shown that procaine has a curare-like action in the myoneural junction, reducing the amount of acetylcholine produced and neutralizing the acetylcholine that is liberated [6] It may also exert its effect by direct action on the endings of the sensory nerve fibers, by antagonizing histamine or histamine-like substances, and by potentiating epinephrine secretion

The dosage recommended is 1 Gm. of procaine dissolved in 500 or 1,000 cc of either glucose or saline to be given by the infusion method at a rate ranging between 40 to 50 drops per minute The amount and the rate of administration employed in this case is in conformity with the accepted technic

The performance of a skin test prior to the use of the drug to determine hypersensitivity, as has been suggested by many observers, is a useless procedure. Positive direct skin reactions of the immediate wheal type are rarely observed in instances of drug allergy, hence its omission here

Benign deleterious effects noted during intravenous procaine therapy consist of a sensation of warmth throughout the entire body occurring about five minutes after the infusion has begun, a metallic taste in the mouth, lacrimation, nausea, giddiness, and sluggish speech. Serious consequences are marked apprehension, excitability, convulsions, and signs of bronchial constriction The dosage and the rate of administration are governing factors in determining the degree and severity of reaction However, it is agreed that in order to obtain a maximum therapeutic result it is necessary to secure a mild toxic response Oftentimes the line of demarcation between a harmless and grave outcome cannot be accurately measured

The improvement of the bronchial asthma noticed after the onset of intravenous procaine suggested a successful response to the drug After half the solution entered the blood stream, symptoms of nervous system irritability appeared requiring the use of sodium amytal by vein The barbiturates of either moderate or short duration action are the accepted antidote for the toxic nervous system reaction to intravenous procaine Occasionally, accidental poisoning may follow the use of intravenous amytal, and death results from paralysis of the respiratory center

The terminal episode in this patient was one of marked cerebral anoxia It is difficult to identify the exact cause of this mechanism for there are three factors to be considered First is the bronchial asthma per se, which can produce an anoxic type of anoxia Second is the intravenous procaine, which may have increased the bronchoconstriction already present and also acted on the higher centers, creating anoxia Third is the sodium amytal with its potential hazard of depression of the respiratory center resulting in anoxia Death may have been the result of any of the above components or the cumulative effect of all three

Summary

1 A case of bronchial asthma that did not respond to epinephrine and aminophylline is herewith presented

2 An infusion of 1 Gm of procaine in 500 cc of saline was given at a rate of 40 to 45 drops per minute for the relief of the asthmatic state

3 After half the dose was administered a marked irritability and restlessness was noted

4 Sodium amytal was then given intravenously to counteract the marked restlessness and excitability, and shortly thereafter death occurred

5 The terminal picture closely resembled cerebral anoxia, and the probable factors responsible for such anoxia in this case are mentioned

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THE MASTER "2-STEP" EXERCISE TEST IN THE DIFFERENTIAL DIAGNOSIS OF CORONARY ARTERY DISEASE

SIDNEY STORCH, M D , LEON PORDY, M D , and JOSEPH KOLKER, M D , New York City

(*From the Cardiographic Department of Mt Sinai Hospital*)

THE Master "2-step" exercise test and the anoxemia test have both been employed with greater frequency in recent years as important aids in the objective diagnosis of coronary artery disease when the resting electrocardiogram is normal.[1-3] The case of a man sixty years of age with gastrointestinal bleeding and coronary disease is described because of the diagnostic problem he presented. The differential diagnosis rested between duodenal ulcer, cerebral lesion, and coronary disease, with the ultimate solution arrived at by use of the Master "2-step" test The results of the latter were confirmed nine months later by an attack of spontaneous angina followed by myocardial infarction due to coronary occlusion

Case Report

The patient, B N , was a sixty-year-old white man whose relevant past history was as follows He was first admitted to the Mount Sinai Hospital, New York City, on March 1, 1946, with the chief complaint of gnawing epigastric pain with radiation to the mid back region This had persisted for three weeks prior to his admission to the hospital He gave a history of epigastric pain and gastrointestinal bleeding for several years for which he was hospitalized twice in the city hospitals of New York. A diagnosis of bleeding duodenal ulcer was made Three weeks prior to this Mount Sinai Hospital admission he experienced severe gnawing epigastric pains, not relieved by food or alkali. He entered the hospital with extreme epigastric pain with mid back radiation. The laboratory studies at this time showed blood urea, blood sugar, total proteins, and urine analysis all normal, blood Wassermann and Kahn negative, hemoglobin 103 per cent, white blood cells 3,800 with normal differential count, sedimentation rate 20 mm. per hour (Westergren), stool guaiac negative, blood hematocrit 48 per cent, Rehfuss test showed free hydrochloric acid. The patient was discharged as a case of simple duodenal ulcer on March 22, 1946

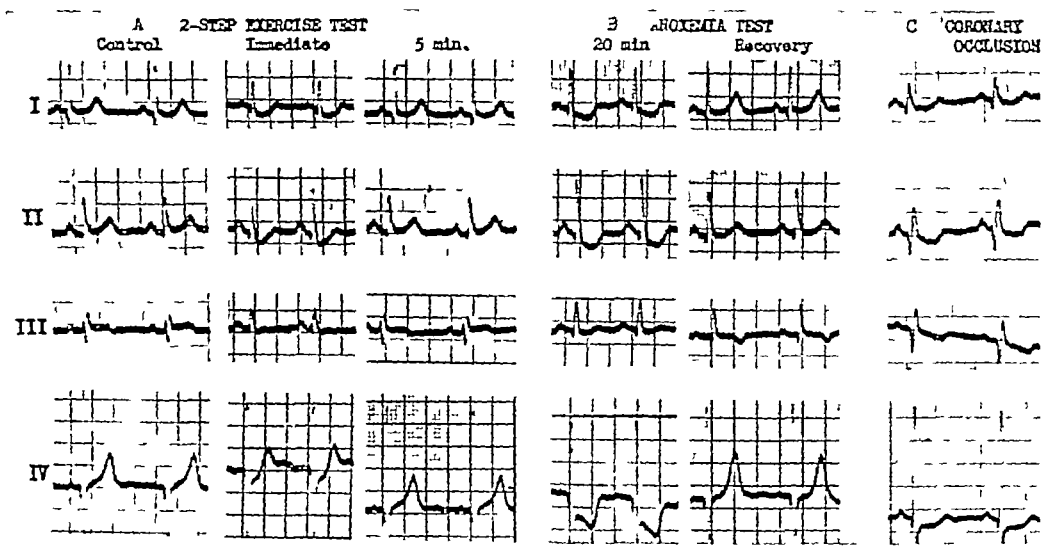


FIG 1 B N , a patient with acute coronary insufficiency and pressure heaviness over the chest radiating to back, not related to effort, often accompanied by syncope Physical examination, including neurologic, negative

(A) Normal electrocardiogram at rest The "2-step" exercise test taken on February 7, 1947, positive for acute coronary insufficiency, showed definite RS-T depressions and T-wave inversions

(B) Ten per cent anoxemia test, taken on February 20, 1947, was also positive for acute coronary insufficiency

(C) Electrocardiogram taken on January 5, 1948, showed large Q_3 and Q_4 indicative of previous coronary occlusion with posterior wall infarction, the RS-T segment depression in lead IV accompanied the clinical episode of acute coronary insufficiency

The patient was seen frequently in the outpatient department and had no unusual complaints until January 24, 1947, five days prior to his second Mount Sinai Hospital admission on January 29, 1947, when he began to experience sudden attacks of syncope associated with pressure over the lower portion of the chest or upper abdomen which radiated to the mid back. The pressure was not related to effort There was also shortness of breath on exertion Physical examination was normal. The diagnosis was considered to lie between a cerebral lesion (because of the syncope) and a bleeding duodenal ulcer Coronary disease was not suspected since the resting electrocardiogram was normal. No evidence of bleeding could be discovered, and the stool examination was negative The neurologic examination was normal The patient was referred to the cardiographic department for consultation Here coronary artery disease was suspected, and the Master "2-step" test was performed Figure 1A shows the results of this test Distinct RS-T depressions and T wave inversions appeared in leads I, II, and IV, and a diagnosis of coronary artery sclerosis was made This was confirmed by the 10 per cent oxygen test which disclosed conspicuous depressions of the RS-T segment in leads I, II, and IV (Fig 1B) Subsequent events further established the specificity of the "2-step" test

Nine months later, the patient developed a classic anginal syndrome, i e , substernal pressure on effort or excitement, and he suffered an acute coronary occlusion with infarction involving the posterior wall of the left ventricle The electrocardiogram showed a deep Q_2Q_3 pattern

On January 5, 1948, while attending the cardiac outpatient department, the patient had a sudden attack of substernal oppression and drop in blood pressure from 140/92 to 112/90, accompanied by tachycardia, weak pulse, cold sweat, and pallor, and the patient was admitted to the ward in partial shock. A diagnosis of coronary artery sclerosis with insufficiency was made (Fig 1C) Here again the laboratory showed normal hemoglobin with stools negative for blood

Summary

1 This case demonstrates the value of the Master "2-step" test in substantiating the diagnosis of coronary artery disease in a patient whose previous history was quite misleading

2 The "2-step" test was the only positive finding and was positive nine months before the patient suffered an attack of acute coronary insufficiency

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"DOCTOR JONES SAYS"—

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The analyst—we haven't said much about him He's the mainspring that makes the analysis "tick." The success of the operation depends largely on his personality, experience, and skill—and ability to pick promising cases Oh, sure, there's women analysts Why not?

What folks are likely to be benefited by analysis it'd make a long list People with troublesome neuroses—they're the ones that need it most, so they usually give 'em priority Many people in mental institutions might be helped by it, but it takes too much time and individual attention to be practicable, as a general proposition But lots of intelligent, serious-minded people, not too old, that aren't satisfied with their personalities and reactions would be better for it The late Rabbi Liebman, that wrote *Peace of Mind*, had been analyzed, so I'm told. More and more doctors are going into it. When they understand 'emselves they're better able to understand their patients and their reactions

The results—well, they vary, naturally The analysts try to weed out the poor prospects, even so, some can't make the grade The ones that're successful (probably the majority) neuroses are relieved and "normal" folks are better able to deal with the realities of life The way it changes people—that part of it is a story by itself

How do I know these things? Well, I'll tell you it's like the burdocks my Sealyham had on him when he'd been out in the brush back of the barn He'd picked 'em up going through it —*Paul B Brooks, M.D , October 24, 1949*

ACUTE MYOCARDIAL INFARCTION IN A SIXTEEN-YEAR-OLD BOY

ALBERT H DOUGLAS, M D , F A C P , and LEON MARIENBERG, M D , Jamaica, New York

(From the Queens General Hospital and The Jewish Hospital of Brooklyn)

ACUTE myocardial infarction in childhood is an uncommon event However is our case illustrates it can occur, and it must be considered in the differential diagnosis of chest pain in the young

Case Report

R. D , a sixteen-year-old boy, developed mild pain in the sternal region on June 24, 1948. This pain subsided in a few moments and was disregarded. Five days later, the patient awoke with severe pain in the same area. The pain was attributed to the effort involved in racing up a car the day before It was described as sharp and bore no relation to respiration, position change or swallowing It did not radiate and lasted all day There were no associated symptoms.

The past history included mumps at five, measles and whooping cough at six. At eleven the patient had a high fever of unknown cause, not associated with joint pains, that lasted two weeks. At the age of fourteen he was treated for obesity with one grain Proloid daily for a period of five months His weight fell from 220 to 180 pounds The basal metabolic rate is said to have been normal at this time From November, 1947, to March, 1948, the patient was given 25,000 units of Vitamin A twice a day as treatment for acne vulgaris.

The family history was significant only in the fact that the patient's father had a coronary artery thrombosis at the age of forty-eight

Physical examination done on July 1, 1948 two days after the onset of the acute illness, revealed a well-developed, slightly obese boy of sixteen in no apparent distress He was 5 feet 8½ inches tall and weighed 180 pounds There were no positive findings except for acne vulgaris of face and chest and a faint systolic, blowing murmur localized over the pulmonic area and audible during expiration only The blood pressure was 120 70 An electrocardiogram showed a T_1 type of pattern sugges-

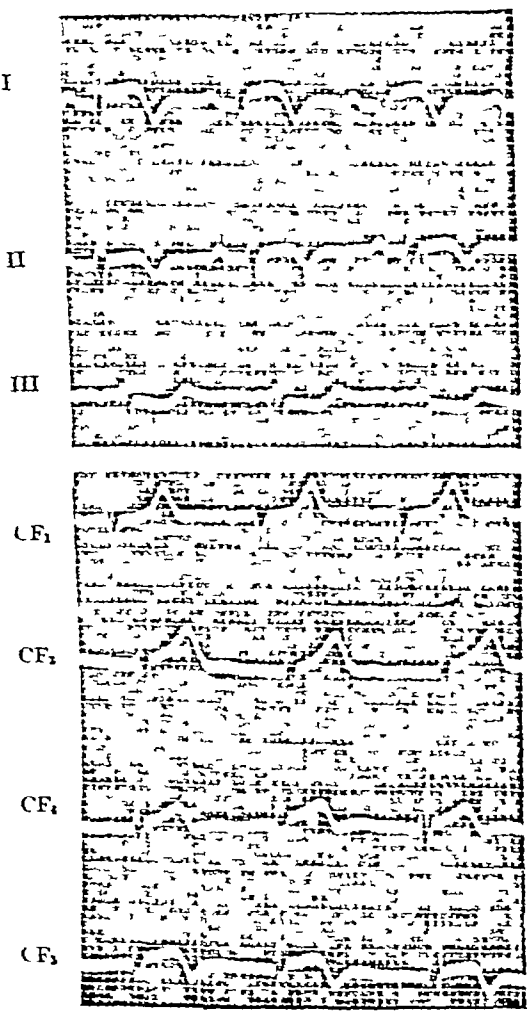


FIG 1. Electrocardiogram taken on July 1, 1948.

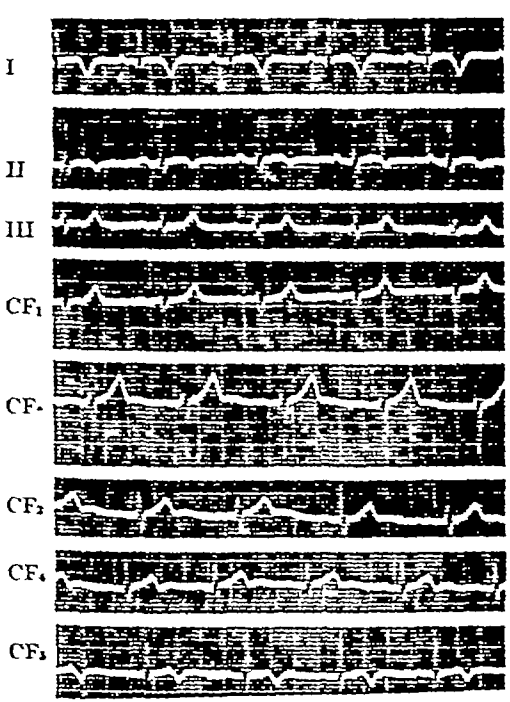


FIG 2. Electrocardiogram taken on July 28, 1948.

The patient was seen frequently in the outpatient department and had no unusual complaints until January 24, 1947, five days prior to his second Mount Sinai Hospital admission on January 29, 1947, when he began to experience sudden attacks of syncope associated with pressure over the lower portion of the chest or upper abdomen which radiated to the mid back. The pressure was not related to effort There was also shortness of breath on exertion Physical examination was normal The diagnosis was considered to lie between a cerebral lesion (because of the syncope) and a bleeding duodenal ulcer Coronary disease was not suspected since the resting electrocardiogram was normal No evidence of bleeding could be discovered, and the stool examination was negative The neurologic examination was normal The patient was referred to the cardiographic department for consultation Here coronary artery disease was suspected, and the Master "2-step" test was performed Figure 1A shows the results of this test Distinct RS-T depressions and T wave inversions appeared in leads I, II, and IV, and a diagnosis of coronary artery sclerosis was made This was confirmed by the 10 per cent oxygen test which disclosed conspicuous depressions of the RS-T segment in leads I, II, and IV (Fig 1B) Subsequent events further established the specificity of the "2-step" test

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CATHETER FOUND IN PERITONEAL CAVITY FOLLOWING ABORTION

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(From the Department of Surgery, Holy Family Hospital)

THE evil effects of criminal abortion, on both the moral and physical levels, are universally recognized Attention is focused on this topic when unwanted publicity is given to it in the daily press or when an unusual condition associated with an abortion demands special consideration This latter situation has been a recent experience which is believed worthy of recording

Case Report

The patient, Mrs A I , a twenty-five-year-old housewife, was seen for the first time on October 9, 1948 At 8 30 P M of that day, she was admitted to the hospital as an emergency patient On admission she presented the following history Two weeks prior to admission she was treated at home by her family physician for "colic" Twenty hours before her hospital admission she had a recurrence of this "colic" which became quite severe Her family physician was again consulted At this time he stated that she might be developing acute appendicitis Later that evening, October 9, 1948, the same physician stated that she had appendicitis and should be hospitalized.

On examination at the time of admission, the patient complained of moderate abdominal pain She was not dehydrated and had not vomited The significant findings were demonstrated on abdominal examination There was marked bilateral lower abdominal tenderness with rebound. Vaginal examination revealed a pelvic mass about 4 cm. in diameter attached to the left adnexa This mass was tender to palpation and imitated much pain on motion The diagnostic impression at that time was a tubal abscess for which conservative treatment was instituted

The laboratory report on the day of admission indicated leukocytosis (14,500 cells) and a very rapid sedimentation rate Conservative therapy was effective, and the patient was discharged two weeks after her admission

Several weeks later she was readmitted to the hospital for elective surgery On November 9, 1948, an exploratory laparotomy was performed. The operative findings were not anticipated

A left tubal abscess was found attached to the fimbriated end of the fallopian tube Adherent to the abscess was a number 12 rubber catheter with 1 inch missing from the distal end This end of the catheter was imbedded in the abscess. The proximal two thirds of the catheter was firmly adherent to a section of ileum At one point the catheter completely encircled the ileum, constricted the intestine, and was so adherent to the serosa that it had to be dissected free with a scalpel (Fig 1)

Following operation the patient was questioned more thoroughly and presented the missing information in the true story of her illness In 1944, the patient was married She became pregnant and gave birth to a baby girl on December 25, 1944. Two years later she was pregnant again Having separated from her husband, she was in Florida awaiting a divorce While there, she visited a female nurse who inserted a rubber catheter vaginally on July 30, 1946 The nurse could not retrieve the catheter and cut the distal end so that it would not protrude from the vagina Three months after the nurse inserted the catheter, the patient expelled a three-month-old fetus Hemorrhage occurred on the next day She was hospitalized in Florida on the same day and passed the placenta the next day

In 1947 she was reconciled to her husband. She became pregnant again and on September 1, 1948, gave birth to a normal baby boy



FIG 1 Catheter and abscess removed at time of operation. Arrows indicate intestinal serosa adherent to catheter

Comment

The presentation of this case is unusual from several points of view First, a catheter inserted vaginally entered the uterus and finally came to rest in the peritoneal cavity where it became adherent to small intestine and formed a tubal abscess Second, the catheter became densely adherent to the ileum, was covered with serosa, and in one area completely encircled the intestine without causing an intestinal obstruction Third, a normal pregnancy and delivery occurred with this catheter still attached to the left tube and present in the peritoneal cavity

Up to the present time, the patient is well and has a normal menstrual cycle

tive of acute myocardial infarction with involvement of the anterolateral aspect of the ventricles by a lesion limited to the subendocardial layer (Fig 1)

The patient ran a low-grade fever to 100 F orally for three days Thereafter his temperature was normal The sedimentation rate was 38 mm in an hour on June 29, 1948 The blood cholesterol was 215 *Urinalysis was negative.* Re-examination on July 28, 1948, a month after the onset of the illness, revealed no change in physical findings The patient was asymptomatic and anxious to get out of bed His blood pressure was 140/50 An electrocardiogram showed return of the displaced S-T segment in leads 1 and 3 and CF_4 to an isoelectric level, sharp inversion of the T wave in leads 1, 2, CF_4, and CF_5 persisted The electrocardiographic patterns are typical of acute myocardial infarction.

Comment

Diabetes, hypertension, hypothyroidism, and *familial hypercholesterolemia* are common predisposing causes of atherosclerosis None were present in the case described However, the patient was obese, and this may have been significant French and Dock reported eighty cases of fatal coronary arteriosclerosis in young soldiers and found that 73 were overweight [1] Five of their cases were in the age group twenty to twenty-two years. Newman has also noted the good physical development and nourishment of young adults with coronary occlusion [2] He reported 50 cases in service personnel, including 22 in the age group twenty to thirty The literature includes a number of autopsy reports which describe coronary disease in children without mention of the nutritional state of the subjects.[3-6]

Summary

A case of acute myocardial infarction with recovery in a sixteen-year-old boy is reported. The possible relationship of obesity to coronary sclerosis in the young is illustrated by this case

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DOCTORS FIND INHERITED TENDENCY TOWARD DISEASE OF CORONARY ARTERY

Existence of a hereditary tendency toward development of one type of hardening of the coronary artery is indicated by studies made by three New York doctors, David Adlersberg, Albert D Parets, and Ernst P Boas of Mount Sinai Hospital, reporting their findings in the September 24 *Journal of the American Medical Association*

The common factor for most patients with atherosclerosis of the coronary artery, a form of hardening characterized by fatty degeneration of tissue of the arterial walls, appears to be a hereditary disturbance of the body's metabolism of cholesterol, a fatlike substance found in all animal fats and oils The doctors investigated 201 persons belonging to families with xanthoma for large amounts of cholesterol in the blood, coronary artery disease, and other "stigmas" found in xanthoma.

Serum cholesterol was determined in 175 of these persons and found elevated in 122 Coronary artery disease was found in 80 patients of the entire group Serum cholesterol was determined in 66 of these 80 patients and found elevated in 57 Genetic analysis of the families supports the concept that this disturbance of cholesterol metabolism is inherited, the doctors point out.

These results were compared with those of a previous investigation in which 122 patients with disease of the coronary arteries were examined for elevated serum cholesterol and "stigmas" associated with it. Seventy-one had an excess of cholesterol in the blood In addition, 50 families of these 122 patients were studied In 15 families all or most children exhibited an excess of cholesterol in the blood, as did half of the children in nine other families.

"A hereditary disturbance of lipid metabolism is only one of the conditioning factors for the development of coronary artery disease," the doctors write "A disturbance of uric acid metabolism may play an associative role *It may well be that for persons* with a tendency toward hypercholesterolemia a 'normal' American diet contains sufficient fat and cholesterol to maintain the serum cholesterol levels at critical values which may hasten atheroma formation, whereas a low fat diet may exert a retarding effect on the pathologic process.

"The serum cholesterol of all relatively young patients affected with coronary atherosclerosis should be determined as the initial step in uncovering hypercholesterolemia in members of their immediate family Those whose cholesterol level is found to be elevated should be examined for latent cardiovascular disease and should be kept under permanent medical supervision"

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NECROLOGY

Joseph Henry Acton, M D , of Endicott, died suddenly on October 24 at his home from a heart attack at the age of fifty-one Dr Acton received his medical degree from McGill University College of Medicine in 1925 Before beginning his medical studies, Dr Acton had served with the British Royal Air Force in France during World War I He became one of the Allies' top war aces and was a member of the "Quiet Birdmen," an organization of the first fifty war aces

Dr Acton had been a member of the surgical staff of the Ideal Hospital of Endicott and belonged to the Broome County and New York State Medical Societies and the American Medical Association

L Franklin Anderson, M.D , of Buffalo, died on October 24 after a long illness at the age of sixty-seven Dr Anderson was graduated in 1907 from the University of Buffalo School of Medicine Before his retirement because of illness, Dr Anderson had been consulting anesthetist at Gowanda State Hospital in Helmuth and attending anesthetist at Lafayette General, Millard Fillmore, and Emergency Hospitals in Buffalo He was a member of the American Society of Anesthetists, the Erie County and New York State Medical Societies, and the American Medical Association

Frank Edwin Brundage, M.D , of Buffalo, died on October 25 at the age of sixty-eight Dr Brundage was graduated from the University of Buffalo School of Medicine in 1909 and had retired recently as chief medical officer of the Veterans Administration for western New York During World War II Dr Brundage served as a colonel in the Army Medical Corps for five years, including one year of foreign service in Algiers He was associate consulting pediatrician at Meyer Memorial Hospital in Buffalo Dr Brundage was a member of the Erie County and New York State Medical Societies and the American Medical Association

William John Cavanaugh, M.D , of Poughkeepsie, died on October 23 at his home after a long illness, at the age of seventy-five. Dr Cavanaugh was graduated from the Albany Medical College in 1899 and had retired in 1943 because of ill health He had opened a practice in Oneonta and then served at the Willard State Hospital, Willard, before joining the staff of the Hudson River State Hospital, Poughkeepsie, in 1901 Dr Cavanaugh was supervising psychiatrist when he retired in 1943

In May, Dr Cavanaugh was honored at the 1949 meeting of the Medical Society of the State of New York, in Buffalo, for his completion of fifty years in the practice of medicine. He also received an award from the Alumni Association of Albany Medical College in recognition of fifty years of meritorious service to humanity Dr Cavanaugh was a member of the American Psychiatric Association, the National Committee on Mental Hygiene, the Dutchess County and New York State Medical Societies, and the American Medical Association

Joseph Angelo Devlin, M.D , of New York City, died suddenly on November 4 of a heart attack at the age of sixty-five. Dr Devlin received his medical degree from the University of Maryland in 1906 and interned at St Francis Hospital in New York City He began his practice in 1910 Dr Devlin served as consulting obstetrician and gynecologist at Misericordia Hospital and as attending obstetrician and gynecologist at St Clare's Hospital, both in New York City He was also consulting surgeon to the New York City Police Department, executive medical officer of the Third Naval District, and medical officer of the 69th Regiment of the New York National Guard

Dr Devlin was a Fellow of the American College of Surgeons and of the New York Academy of Medicine He was a member of the New York Surgical and Medical Society, the Celtic Medical Society, the New York County and State Medical Societies, and the American Medical Association

Charles Joseph Dillon, M D , New York City, died on November 4 at St Elizabeth's Hospital after a month's illness, at the age of sixty-nine. Dr Dillon was graduated in 1902 from the College of Physicians and Surgeons, Columbia University, and interned at City Hospital, Welfare Island, where he was on the staff as visiting physician until 1947, when he became consulting physician In 1911 Dr Dillon was appointed a surgeon in the New York City Police Department, was promoted to chief surgeon in 1938, and retired in 1946 He was the author of "The Police Officers and Obstetric Emergencies," an obstetric guide for patrolmen

During World War I, Dr Dillon served as a captain in the Army Medical Corps He had been head of the allergy clinic at New York Post-Graduate Hospital, a resident physician at New York Foundling Hospital, and on the staffs of Misericordia, Roosevelt, Polyclinic, and New Rochelle Hospitals Dr Dillon was a member of the New York County and State Medical Societies and the American Medical Association

Andrew Jackson Fox, M D , of New York City, died at his home in Camden, Maine, on November 3 at the age of ninety-two Dr Jackson was graduated from the Bellevue Hospital Medical College in 1884 and interned at Bellevue Hospital Later he was on the staffs of New York, Roosevelt, and Presbyterian Hospitals in New York City For forty-six years, until his retirement twelve years ago, Dr Fox was chief medical examiner for the Equitable Life Assurance Society of the United States He was a member of the New York County and State Medical Societies and the American Medical Association

George Jesse Ganow, M D , of Port Dickinson, died on October 24 at his home after a short illness, at the age of eighty Dr Ganow, one of Broome County's oldest practitioners, received his medical degree from Hahnemann Medical College in Philadelphia, Pennsylvania, in 1894 Before starting his practice in Port Dickinson, where he had been for thirty-four years, Dr Ganow practiced in Smithville Flats, Sidney, and Oxford, in New York State, and in Oklahoma During World War I he was a captain in the Army Medical Corps

[Continued on page 2850]

"A safe and effective drug to use in controlling weight gain  during pregnancy."

Coopersmith B.L. Dexedrine and Weight Control in Pregnancy Am J Obst & Gynec (Oct.) 1949

Coopersmith reports the successful use of 'Dexedrine' Sulfate Tablets for weight control in a series of 100 obstetric patients Because 'Dexedrine' curbed appetite and thus enabled these patients to follow their prescribed diets, control or reduction of weight was achieved in virtually all cases  It is noteworthy that other methods, including the use of thyroid, had previously failed to prevent excessive weight gain in these same individuals "Thyroid", Coopersmith states, "increases the appetite and is toxic in many cases"  "Dexedrine Sulfate", the report concludes, "is a safe and effective drug to use in controlling weight gain during pregnancy"

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[Continued from page 2848]

Dr Ganow was health officer for the towns of Binghamton and Dickinson and the village of Port Dickinson Several years ago he was honored by the Medical Society of the State of New York in recognition of his completion of fifty years in the practice of medicine Dr Ganow was a member of the American Institute of Homeopathy

William McDowell Halsey, M D , of Oswego, died suddenly on October 28 at the age of seventy Dr Halsey was graduated from the Syracuse University College of Medicine in 1902 and had practiced in Norfolk, Virginia, and Ellisburg, New York, before opening his practice in Oswego in 1911 He was assistant surgeon on the staff of the Oswego Hospital and was a member of the Oswego Academy of Medicine, the Oswego County and New York State Medical Societies, and the American Medical Association.

Rosslyn Philip Harris, M D , of Hudson, died on October 27 at the Columbia Memorial Hospital in Hudson at the age of sixty-five. Dr Harris was graduated from the Albany Medical College in 1908 and had practiced in Hudson since 1913 He was chief of the surgical staff at Hudson City Hospital and consultant radiologist at the Columbia County Tuberculosis Sanatorium Dr Harris had served as president of the Columbia County Board of Health, of the Columbia County Medical Society, and of the Tuberculosis Eradication Association of Columbia County During World War II he was chairman of the county's selective service committee supplying doctors to the armed services Dr Harris was a member of the Columbia County and New York State Medical Societies and the American Medical Association

George J Lawrence, M.D , of Flushing, died November 9 at his home at the age of sixty-eight. Dr Lawrence, a major general of the New York National Guard, was graduated from the University of Pennsylvania College of Medicine in 1907 and opened his practice in Flushing In 1916 General Lawrence enlisted as an Army surgeon, serving on the Mexican border, and the next year went to France with the 69th Regiment as a major He was in charge of a front-line field hospital.

At the end of World War I, General Lawrence was with the Army of Occupation in Germany until 1920 Wounded twice during the war, he was decorated with the Silver Star for gallantry in action General Lawrence, who had been a member of the Officers Reserve Corps since 1909 and a member of the New York National Guard since 1908, was promoted to the rank of colonel in 1940 and placed in charge of the organization and command of the 69th New York Guard Regiment. In 1932 he was elected commander of the New York State Department of the American Legion.

Dr Lawrence was consulting gynecologist and obstetrician at the Flushing Hospital and a member of the Queens County and New York State Medical Societies and the American Medical Association.

Franklin Dana Lawson, M.D , New York City, died on October 26 after a long illness, at the age of eighty-three. Dr Lawson was graduated from the College of Physicians and Surgeons, Columbia University, in 1890 and practiced in New York City for several years He served on the staffs of New York and Polyclinic Hospitals Dr Lawson, who was also a voice teacher and former soloist at St. Bartholomew's and St. John's Protestant Episcopal Churches in New York City, studied singing in Paris He was the author of a manual of voice training, "The Human Voice," published in 1944. Dr Lawson founded the Society for the Prevention of Accidents in 1922 and was a member of the Singing Teachers Association of New York City

Arthur Clark Loper, M.D , of Greenport, died October 22 at his home at the age of eighty-one. Dr Loper received his medical degree from the College of Physicians and Surgeons, Baltimore, in 1896, and had practiced medicine in Greenport for fifty-two years He was attending physician at the Eastern Long Island Hospital in Greenport and a former member of the Greenport Board of Education Dr Loper was a member of the Suffolk County and New York State Medical Societies and the American Medical Association

Clarence Edmond Mullens, M.D , of Albany, died on November 9 at the Albany Memorial Hospital after a long illness, at the age of sixty Dr Mullens was graduated from the Albany Medical College in 1912, and served during World War I as a captain in the Army Medical Corps, later being with the Army of Occupation Dr Mullens was attending surgeon at Memorial Hospital and a member of the Albany County and New York State Medical Societies and the American Medical Association

Nishan Alexander Pashayan, M D , of Schenectady, died suddenly on October 28 in his office while examining a patient, at the age of seventy-four Born in Armenia, Dr Pashayan fled his native country in 1890 to escape rule by the Turks and came to America. In 1901 he was graduated from the Albany Medical College and was associated with New York State hospitals before opening his practice in Schenectady A diplomate of the American Board of Psychiatry and Neurology, Dr Pashayan was consultant in neuropsychiatry at Ellis Hospital in Schenectady He was past president of the Schenectady County Medical Society and a member of the New York State Medical Society and the American Medical Association

Norton Isaac Pennock, M D , of Poughkeepsie, died on November 3 at his home at the age of sixty-seven Dr Pennock received his medical degree from Queens University in Toronto, Canada, in 1904 He joined the New York State Department of Mental Hygiene in Ogdensburg and in 1905 transferred to the staff of the Hudson River State Hospital at Poughkeepsie, where he was supervising psychiatrist at the time of his death. Dr Pennock was a member of the Dutchess County and New York State Medical Societies and the American Medical Association

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Caubren Compound contains.

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Acetophenetidin .. .. 320 mg
Caffeine .... 32 mg
analgetic and antipyretic synergists

administration

one to two tablets every 3-4 hours for at least 48 hours beginning as soon as possible after appearance of initial symptoms. Children according to weight

available Bottles of 20 tablets and 100 tablets.

bibliography- (1) Brewster J M., U S. Nav M. Bull. 49 1 1949 (2) Gordon John S. The Laryngoscope 58 1265-73 1948. (3) Murray H G Indust. Med 18.215 1949

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BOOKS

Books for review should be sent to Book Review Department at 1313 Bedford Avenue Brooklyn, N Y Acknowledgment of receipt will be made in these columns and deemed sufficient notification. Selection for review will be based on merit and interest to our readers

BOOKS RECEIVED

Operative Technic in General Surgery Edited by Warren H. Cole, M.D Octavo of 951 pages, illustrated. New York, Appleton-Century-Crofts, 1949 Cloth, $16

Cardiovascular Disease Fundamentals, Differential Diagnosis, Prognosis and Treatment. By Louis H Sigler, M.D Octavo of 551 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $10

Advances in Internal Medicine. Edited by William Dock, M D , and I Snapper, M D Associate Editors, Tinsley R. Harrison, M D , Chester S. Keefer, M D , Warfield T Longcope, M.D , *et al.* Volume III. Octavo of 478 pages, illustrated. New York, Interscience Publishers, 1949 Cloth, $8 50

Psychosexual Development in Health and Disease. Edited by Paul H. Hoch, M.D and Joseph Zubin, Ph.D The Proceedings of the Thirty-Eighth Annual Meeting of the American Psychopathological Association, held in New York City, June, 1948. Octavo of 283 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $4.50

Regional Ileitis By Burrill B Crohn, M.D Octavo of 229 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $5 50

The Epitome of Andreas Vesalius. Translated from the Latin by L R. Lind, Ph.D With Anatomical Notes by C W Asling M.D Quarto of 103 pages, illustrated. New York, Macmillan Co , 1949 Cloth, $7 50

Hematology By Willis M Fowler, M.D With a chapter by Elmer L. DeGowin, M.D Second edition. Octavo of 535 pages, illustrated. New York, Paul B Hoeber, 1949 Cloth, $8.50

Roentgen Diagnosis of the Extremities and Spine By Albert B Ferguson, M.D Volume 17 of the "Annals of Roentgenology" Second edition. Quarto of 519 pages, illustrated. New York, Paul B Hoeber, 1949 Cloth, $15

Trends in Medical Education. The New York Academy of Medicine Institute on Medical Education, 1947 Edited by Mahlon Ashford, M.D Octavo of 320 pages. New York, Commonwealth Fund, 1949 Cloth, $3 00

Archivum Chirurgicum Neerlandicum. Edidit Collegium Neerlandicum Promovendis Studus Chirurgicis. Constitutum a Singulis Societatibus Quarum Cura. Vol. 1, No 1, 1949 [Published in English (with a very occasional article in French or German)] Arnhem, The Netherlands, S Gouda Quint, D Brouwer en Zoon (New York, Oxford University Press) $8.50 per year

Industrial Toxicology By Alice Hamilton, M.D , and Harriet L. Hardy, M.D Second edition. Octavo of 374 pages. New York, Paul B Hoeber, 1949 Cloth, $7 50

The Skin Problem Facing Young Men and Women. By Herbert Lawrence, M.D Octavo of 70 pages. San Francisco, Timely Publications, 1948 Paper, $1 50

Essentials of Orthopaedics By Philip Wiles. Octavo of 486 pages, illustrated. Philadelphia, Blakiston Co , 1949 Cloth, $10

Art and the Unconscious. By Lionel Gorten. M.D Octavo, no paging, illustrated. New York. United Book Guild, n.d Cloth, $3 75

Dermatologie. By J Darier, A. Civatte, and A. Tzanck. Fifth edition. Translated from the French into German by Eva Schwarz, M.D Octavo of 922 pages, illustrated. Bern, Switzerland, Medizinischer Verlag Hans Huber, 1949 Cloth, 90 Swiss francs.

The Practice of Refraction. By Sir Stewart Duke-Elder Fifth edition. Duodecimo of 317 pages, illustrated. St. Louis, C V Mosby Co., 1949 Cloth, $6.25

Atlas of Roentgenographic Positions. By Vinita Merrill while Educational Director Picker X-Ray Corporation. In two volumes. Quarto of 663 pages, illustrated. St. Louis, C V Mosby Co , 1949 Cloth, $30

You and Your Fears. By Peter J Steincrohn, M.D Duodecimo of 224 pages. Garden City, N Y , Doubleday & Co , 1948/1949 Cloth, $2.50.

Limbo Tower By William Lindsay Gresham. Octavo of 275 pages. New York, Rinehart & Co , 1949 Cloth, $3 00

New and Nonofficial Remedies, 1949 Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1949 Issued Under the Direction and Supervision of the Council on Pharmacy and Chemistry of the American Medical Association. Duodecimo of 805 pages, illustrated. Philadelphia, J B Lippincott Co , 1949 Cloth, $3 00

Emotional Security of the Child. A Guide for Religious Leaders. By Othilda Krug-Brady, M.D Duodecimo of 15 pages. Cincinnati, Hebrew Union College, Jewish Institute of Religion, 1948. Paper, 50¢.

The Compleat Pediatrician. Practical, Diagnostic, Therapeutic and Preventive Pediatrics. For the Use of Medical Students, Internes, General Practitioners, and Pediatricians. By Wilburt C Davison, M.D Sixth edition. Octavo of 250 pages Durham, N C , Duke University Pr , 1949 Cloth, $4.75

Bensley's Practical Anatomy of the Rabbit. An Elementary Laboratory Text-Book in Mammalian Anatomy Revised and edited by E Horne Craigie, Ph.D Eighth edition. Octavo of 391 pages, illustrated. Philadelphia, Blakiston Co , 1948. Cloth, $4.25

Medicine. By A. E. Clark-Kennedy, M D Volume 2—Diagnosis, Prevention, and Treatment. Octavo of 894 pages. Baltimore, Williams & Wilkins Co , 1949 Cloth, $7 00

Change of Life. A Modern Woman's Guide. By F S Edsall. Duodecimo of 127 pages, illus-

[Continued on page 2854]

Colds are out OF STYLE

Now that several investigators[1-3] have reported remarkable results with antihistaminic therapy for the common cold

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analgetic and antipyretic synergists

administration

one to two tablets every 3-4 hours for at least 48 hours beginning as soon as possible after appearance of initial symptoms. Children: according to weight

available Bottles of 20 tablets and 100 tablets.

bibliography (1) Brewster J M. U S Nav M. Bull 49:1 1949 (2) Gordon John S: The Laryngoscope 58 1265-73 1948 (3) Murray H G: Indust Med 18.215 1949

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[Continued from page 2852]

trated New York, Woman's Press, 1949 Cloth, $2 00

Explorer of the Human Brain The Life of Santiago Rámon Cajal (1852–1934) By Dorothy F Cannon With a Memoir of Dr Cajal by Sir Charles Sherrington Octavo of 303 pages, illustrated New York, Henry Schuman, 1949 Cloth, $4 00

Rehabilitation of the Handicapped A Survey of Means and Methods Edited by William H Soden Octavo of 399 pages New York, Ronald Press, 1949 Cloth, $5 00

Autobiography of Dr Robert Meyer (1864–1947) A Short Abstract of a Long Life With a Memoir of Dr Meyer by Emil Novak, M D Quarto of 126 pages, illustrated New York, Henry Schuman, 1949 Cloth, $2 50

Text-Book of Ophthalmology By Sir W Stewart Duke-Elder, M D Volume 4—The Neurology of Vision Motor and Optical Anomalies Octavo, pages 3473–4627, illustrated. St Louis, C V Mosby Co , 1949 Cloth, $20

A Descriptive Atlas of Radiographs An Aid to Modern Clinical Methods By A P Bertwistle, M B Seventh edition Large octavo of 622 pages, illustrated St Louis, C V Mosby Co , 1949 Cloth, $16

Treatment in Proctology By Robert Turell, M D With a Chapter on Psychosomatic Problems by Louis Linn, M D Octavo of 248 pages, illustrated Baltimore, Williams & Wilkins Co , 1949 Cloth, $7 00

Synopsis of Hernia By Alfred H Iason, M D Illustrations by Alfred Feinberg Octavo of 500 pages, illustrated New York, Grune & Stratton, 1949 Cloth, $6 50

The Parathyroid Glands and Metabolic Bone Disease Selected Studies By Fuller Albright, M D , and Edward C Reifenstein, Jr , M D Octavo of 393 pages, illustrated Baltimore, Williams & Wilkins Co , 1948 Cloth, $8 00

Progress in Neurology and Psychiatry An Annual Review Volume 4 Edited by E A Spiegel, M D Octavo of 592 pages New York, Grune & Stratton, 1949 Cloth, $10

Photoradiography in Search of Tuberculosis By David Zacks, M D Quarto of 297 pages, illustrated. Baltimore, Williams & Wilkins Co , 1949 Cloth, $5 00

An Account of the Schools of Surgery, Royal College of Surgeons, Dublin, 1789–1948. (A Dublin School of Medicine and Surgery) By J D H Widdess, M A (Dublin) Octavo of 107 pages, illustrated Baltimore, Williams & Wilkins Co , 1949 Cloth $5 00

Early Carcinoma of the Uterine Cervix. Pathogenesis and Detection. By Hansjakob Wespi, M D Translated by Marie Schiller, Ph.D Octavo of 271 pages, illustrated. New York, Grune & Stratton, 1949 Cloth, $6 50

Blakiston's New Gould Medical Dictionary A Modern Comprehensive Dictionary of the Terms Used in all Branches of Medicine and Allied Sciences, Including Medical Physics and Chemistry, Dentistry, Pharmacy, Nursing, Veterinary Medicine, Zoology and Botany, as Well as Medicolegal Terms, with Illustrations and Tables Editors, Harold Wellington Jones, M D , Normand L Hoerr, M D , and Arthur Osol, Ph D With the cooperation of an editorial board and 80 contributors Octavo of 1,294 pages Philadelphia, Blakiston Co , 1949 Cloth, $8 50

The Medical Clinics of North America. Mayo Clinic Number July, 1949 Octavo Philadelphia, W B Saunders Co , 1949 Published Bi Monthly (six numbers a year) Cloth, $16 net, Paper, $12 net.

The Science and Art of Joint Manipulation. By James Mennell, M D Vol. 1—The Extremities. Second edition Octavo of 215 pages, illustrated Philadelphia, Blakiston Co , 1949 Cloth, $7 50

Recent Advances in Oto-Laryngology By R Scott Stevenson Second edition. Large duodecimo of 395 pages, illustrated Philadelphia, Blakiston Co , 1949 Cloth, $6 00

Textbook of Medical Treatment. By Various Authors Edited by D M Dunlop, M D , L S P Davidson, M D , and J W McNee, M D Fifth edition. Octavo of 999 pages, illustrated Baltimore, Williams & Wilkins Co , 1949 Cloth, $8 50

Marihuana in Latin America. The Threat It Constitutes By Pablo Osvaldo Wolff, M D Duodecimo of 56 pages Washington, Linacre Press, 1949 Paper, $1 50

BOOKS REVIEWED

Diseases of the Fundus Oculi. With Atlas. By Adalbert Fuchs, M D Translated by Erich Pressburger, M D Edited by Abraham Schlossman, M D Quarto of 337 pages and 44 colored plates Philadelphia, Blakiston Co , 1949 Three-quarters leather, $30

This is a decidedly valuable translation of a well-known foreign text. It associates the microscopic picture with the eyeground picture seldom found elsewhere in the literature

There is little reference to the contribution of English-speaking countries The American reader will find this detrimental, as much of the recent progress in medical aspects of eyeground diseases has been made in the United States and in England

JOHN N EVANS

Diabetic Menus, Meals and Recipes By Betty M West Octavo of 254 pages New York, Doubleday & Co , 1949 Cloth, $2 95

If every diabetic patient were on the diet, Ch 150, P 80, F 80, this little volume by Betty M West would by all odds be the very best publication of its kind on the market. Unfortunately, as all physicians realize, the diet in every case must be fitted to the needs of the individual, or tailored as it were Diabetic diets vary widely from Ch 150 Gm or less to 250 Gm. or more, protein 80 Gm. or less to 150 Gm or more, fat from 45 to 150 Gm There is no such Utopian entity as a single diabetic diet which will fit all

[Continued on page 2856]

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[Continued on page 2854]

It is deplorable that with very little more effort on the part of the author it would have been possible to make the subject matter of this book less complicated and sufficiently flexible to meet any and every possible dietary prescription of the physician, at the same time retaining as a working foundation the original figures, menus, and recipes as noted

It is unreasonable to expect even the most conscientious patient to struggle through elaborate arithmetical gymnastics in order to arrive at his dietary menu for the day (See page 19) The modern physician seeks to bridge this gap rather than foster in his patient the bases for compulsion neuroses

The reviewer, recognizing the unusual array of appetizing and attractive recipes which might well transform the drab austere diet of the diabetic into the board of a gourmet, will give his patients the advantage of this book sans slide-rules and the musty calculations of a previous generation. He will supply his patients with lists of simple uniform fixed increments of carbohydrate and fat with the suggestion, "Add to Betty West's diet so and so many units of carbohydrate and fat" (No mathematics involved.) Without some such simple adjustment, the unwary diabetic using this book (who will under no conditions be annoyed by a multitude of arithmetical calculations) might to his own great detriment persuade himself that all diabetics should be on the same dietary figures as Betty West It is the bane of the physician when, regardless of counsel and actual needs, his diabetic patient borrows the diet of a neighbor

Much effort has been put into this work of Betty West. A broader viewpoint on the part of the author might well have transformed it from its present status as a diabetic hazard to possibly the most serviceable and practical dietary handbook for the patient in the English language

GEORGE E ANDERSON

Symptoms in Diagnosis By Jonathan Campbell Meakins, M D Second edition Octavo of 542 pages, illustrated. Baltimore, Williams & Wilkins Co, 1948 Cloth, $7 50

The second edition of Meakins' *Symptoms in Diagnosis continues the best features of the first.* It will be a useful introduction to differential diagnosis for the student or young practitioner but contains little which cannot be found in standard textbooks If this volume were half the size and half the price, it would reach a wider audience with little sacrifice of pertinent material. MILTON PLOTZ

More Than Armies The Story of Edward H. Carey, M.D By Booth Mooney Octavo of 270 pages, illustrated. Dallas, Mathis, Van Nort & Co, 1948 Cloth, $5 00

This is a book about an unusually gifted man, a former A.M A. president, whose inner drive, kaleidoscopic yet organized, fulfilled itself in many fields of endeavor Educator, scientist, medical statesman, and outstanding citizen of Dallas, Dr Carey early espoused prepaid health insurance Later, his forthright courage when testifying before a Congressional committee delivered a telling blow, for the time being at least, against what he considered an effort of collectivists to socialize medicine as the first move in the socialization of the American way of life. *More Than Armies* is an inspiring word picture epitomizing the success possible in an atmosphere of enlightened, democratic free enterprise.

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MATTHEW BRUNNER

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Progress has been so rapid in the field of blood transfusion that an up-to-date book on the subject is welcome at any time The present volume will no doubt be very well received because it is a practical manual with emphasis on technics and represents the conclusions of the authors based on their own personal experiences Each of the authors is an authority in one or more branches of the fields of blood grouping and transfusion By adopting the plan of dividing the subject matter into chapters, each chapter being written by the author with the most experience in that particular branch, they have succeeded in producing an authoritative work without any weak spots

The theoretic section of the book is only 114 pages in length and makes no attempt to review completely the vast literature on the subject Still, it is comprehensive and clear and deals not only with the A-B groups and M-N types but also in considerable detail with the Rh-Hr blood types The major section of the book deals with technics of blood grouping and blood banking and incorporates more than 450 pages The technical section of the book is logically arranged and clearly presented, making the book invaluable to all those who work in blood banks The book is also ideal for teaching purposes

A. S WIENER

Child Health Services and Pediatric Education Report of the Committee for the Study of Child Health Services, the American Academy of Pediatrics With the cooperation of the United States Public Health Service and the United States Children's Bureau Octavo of 269 pages, illustrated

[Continued on page 2858]

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[Continued on page 2854]

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Much effort has been put into this work of Betty West. A broader viewpoint on the part of the author might well have transformed it from its present status as a diabetic hazard to possibly the most serviceable and practical dietary handbook for the patient in the English language

GEORGE E ANDERSON

Symptoms in Diagnosis By Jonathan Campbell Meakins, M D Second edition Octavo of 542 pages, illustrated Baltimore, Williams & Wilkins Co, 1948 Cloth, $7 50

The second edition of Meakins' *Symptoms in Diagnosis* continues the best features of the first It will be a useful introduction to differential diagnosis for the student or young practitioner but contains little which cannot be found in standard textbooks If this volume were half the size and half the price, it would reach a wider audience with little sacrifice of pertinent material. MILTON PLOTZ

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[Continued on page 2858]

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[Continued from page 2856]

New York, Commonwealth Fund, 1949. Cloth, $3.50.

This book represents a report of a survey conducted by the American Academy of Pediatrics of the facilities available for child care throughout the country.

It was shown that children nearer the large cities receive much more care than those in the rural communities. The latter part of the report has to do with the pediatric education of the physician and stresses the need for more thorough undergraduate and postgraduate education.

The survey merits close attention by the profession. STANLEY S. LAMM

Evaluation of Chemotherapeutic Agents. Symposium Held at the New York Academy of Medicine. March 25 and 26, 1948. Edited by Colin M. MacLeod, M.D. Octavo of 205 pages, illustrated. New York, Columbia University Press, 1949. Cloth, $4.00.

This symposium on the Section on Microbiology of the New York Academy of Medicine is an attempt to evaluate in a general way certain of the many factors involved in the success or failure of treatment.

The individual contributors are leaders in their respective fields. For the most part the subject matter is timely. Rapid progress in antibiotics, however, has outmoded some chapters such as the chemotherapy of rickettsial diseases and viral infections.

The inclusion of cancer chemotherapy adds to the value of the volume, which should appeal alike to clinicians and investigators. LEO LOEWE

Transactions of the Third American Congress on Obstetrics and Gynecology, Municipal Auditorium, St. Louis, Missouri, September 8 to 12, 1947. Sponsored by The American Committee on Maternal Welfare, Inc. Edited by Geo. W. Kosmak, M.D., and Robert N. Rutherford, M.D. Quarto of 412 pages, illustrated. Portland, Ore., The Western Journal of Surgery Publishing Company, 1948. Cloth, $9.00.

The book includes the papers presented at the Third American Congress on Obstetrics and Gynecology in St. Louis during September, 1947. The congress was sponsored by the American Committee on Maternal Welfare and attracted many well-known and authoritative contributors.

The subjects covered in the general and sectional meetings and at the round tables were varied. Cancer of the cervix, pregnancy complications, and cesarean section were covered in greater detail.

The volume presents many of the newer contributions to the literature and should be of great interest to the specialist. ALEXANDER H. ROSENTHAL

The Medical Clinics of North America. Nationwide Number. March, 1949. Octavo. Philadelphia, W. B. Saunders Co., 1949. Published Bimonthly (six numbers a year). Cloth, $16 net; Paper, $12 net.

The current issue of *Medical Clinics of North America* is entirely devoted to an excellent symposium on long-term illness under the able editorship of Eli Rubin. Most of the papers discuss the management of specific varieties of chronic illness. All are good, one or two outstanding. But of greater importance are those devoted to general discussions of our changing attitudes towards disease. Those by Alvarez, Stieglitz, and Ruesch should be read with care, but that by Bluestone, who more than anyone else in this country has been responsible for the increasing attention to this problem, compels our greatest admiration. Much has been written, almost too much, regarding care of the aged, and an attempt is being made to create a new specialty, geriatrics, not a very realistic classification. Bluestone has sensibly pointed out that the important problem is in the providing of care for the chronic ill of any age, and the social implications are clearly pointed out. The editors of *Medical Clinics* are to be commended for their good judgment in providing us with this symposium. MILTON PLOTZ

Hernia. Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis, and Treatment. By Leigh F. Watson, M.D. Third Edition. With illustrations by Helen Lorraine, Willard C. Shepard, and Ralph Sweet. Third edition. Octavo of 732 pages, illustrated. St. Louis, C. V. Mosby Co., 1948. Cloth, $13.50.

This edition, as previous ones, contains a very interesting historical summary. The format makes for easy reading and rapid reference on all related subjects. The drawings and diagrams are well done. Several new chapters have been added; the one on complications, especially that of recurrent hernia, is particularly good. The discussion on early ambulation and vascular complications is lucid and well written. The chapter on the injection treatment of hernia is so well written as to make the procedure look simple and is therefore somewhat dangerous for general use. PHILLIP E. LEAR

Critical Studies in Neurology. By F. M. R. Walshe, M.D. Octavo of 256 pages, illustrated. Baltimore, Williams & Wilkins Co., 1948. Cloth, $4.50.

Although the contents of this book have been previously published elsewhere, they are of such telling importance in understanding the pillars of neuroanatomy and neurophysiology that the earnest student of medicine, as well as the specialist in neuropsychiatry, will be very grateful to the author for critically hand picking these most important contributions. Dr. Walshe's eminence in his field makes doubly significant his foreword, "The Function of Criticism in Medicine," and his perspicacity in integrating his special field with medicine. Research and clinical fundamentals are presented in an enviably lucid literary style concerning the anatomy and physiology of cutaneous sensibility, the motor cortex, pyramidal tract studies including "discrete movement," and the role of pyramidal tract in willed movements. FREDERICK L. PATRY

An Introduction to Medical Mycology. By George M. Lewis, M.D., and Mary E. Hopper, M.S. Third edition. Quarto of 366 pages, illustrated. Chicago, Year Book Publishers, 1948. Cloth, $8.50.

This book justifies its title, and the material is stated clearly and simply. The subject matter is divided into two parts, one of which deals with the clinical, theoretic, and experimental aspects of mycology and occupies about two thirds of the book, while the other is devoted to the laboratory aspects of fungus diseases. There are 103 excellent black-and-white illustrations and two colored plates.

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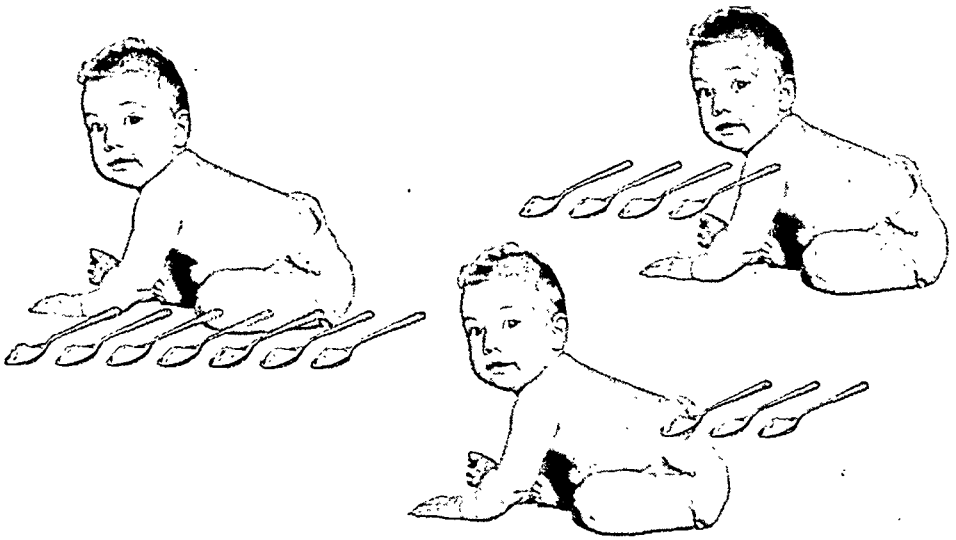
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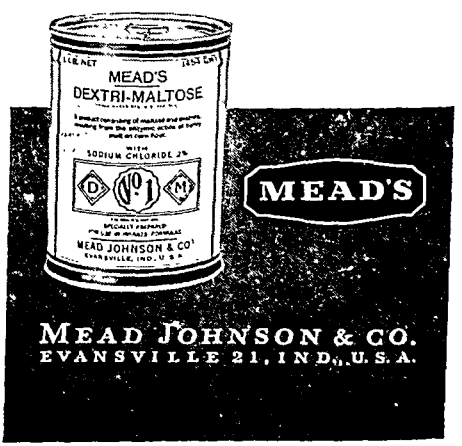
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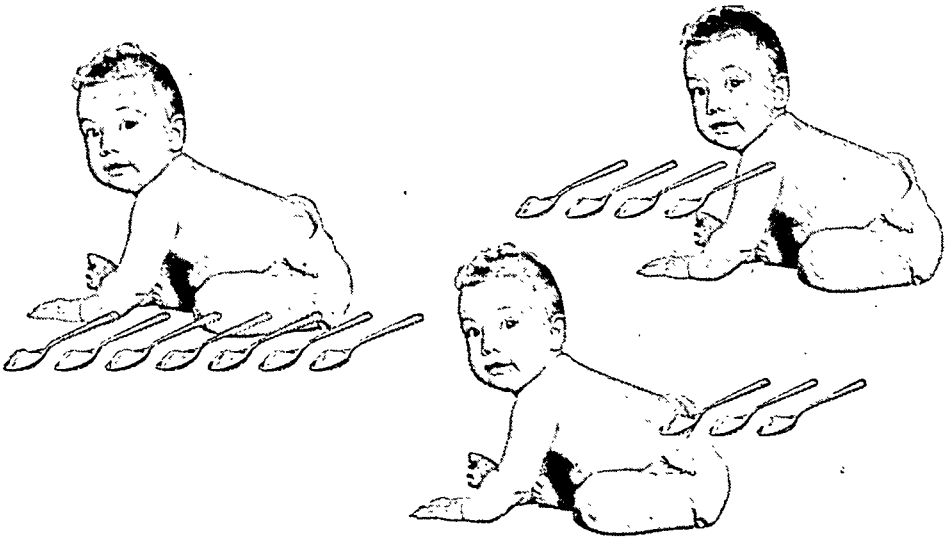
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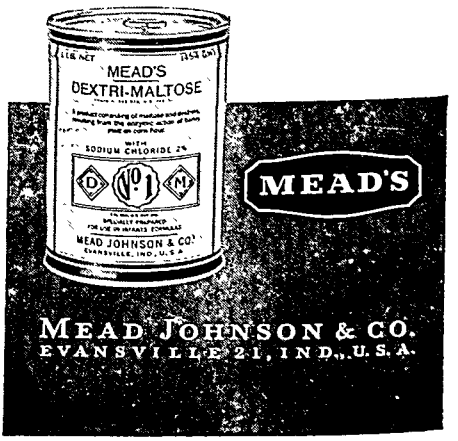
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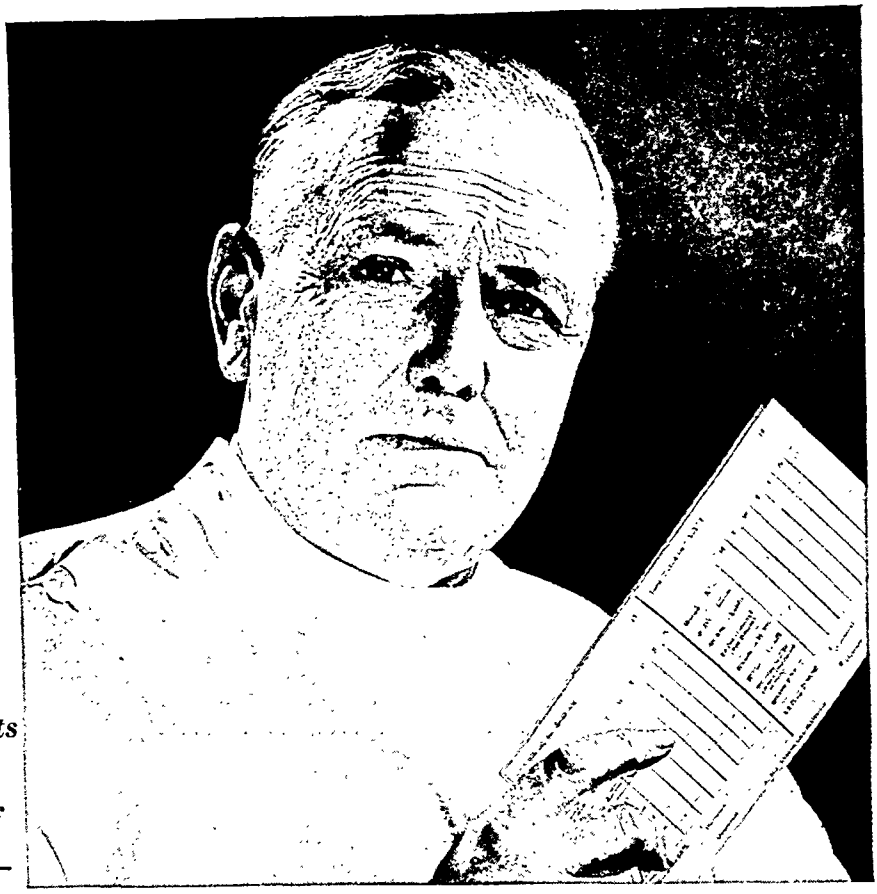
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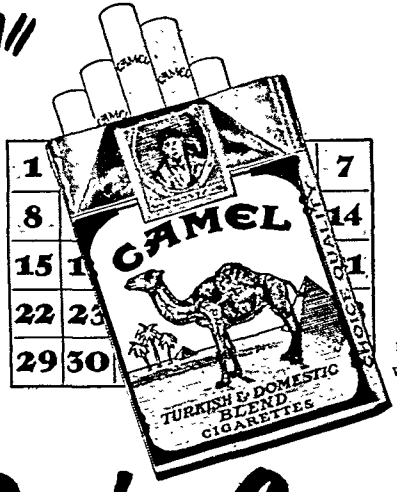
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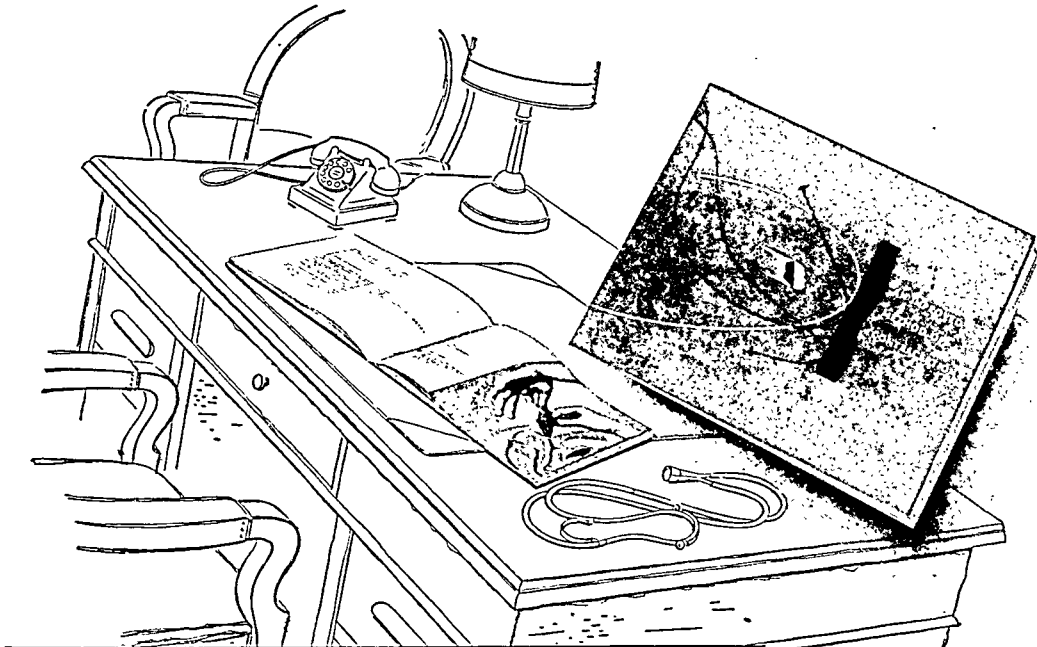
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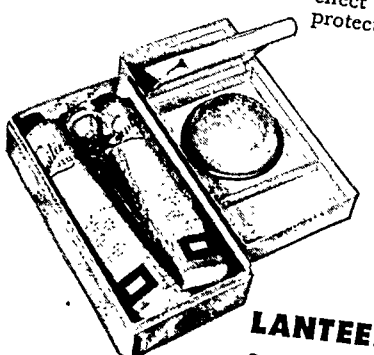
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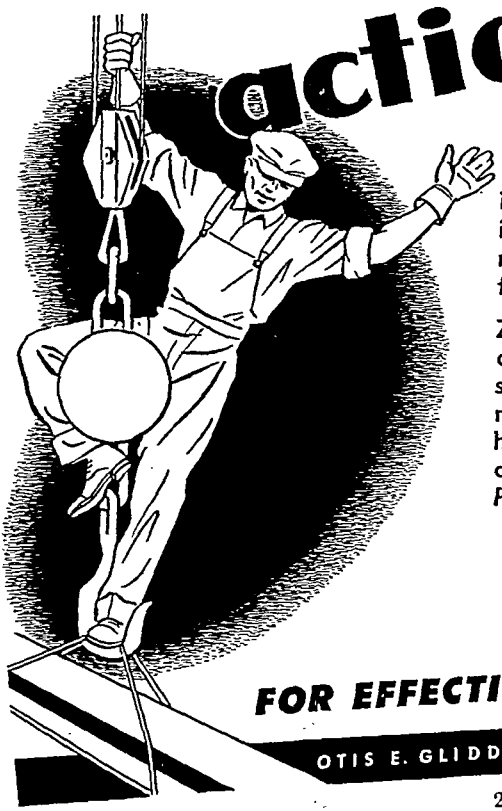
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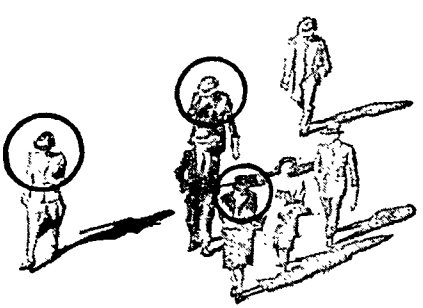
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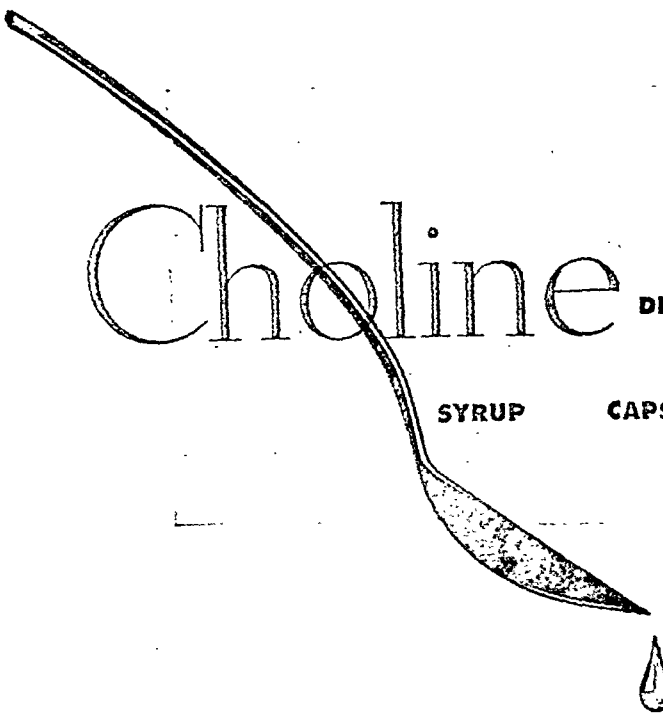
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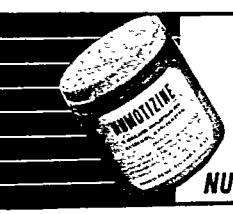
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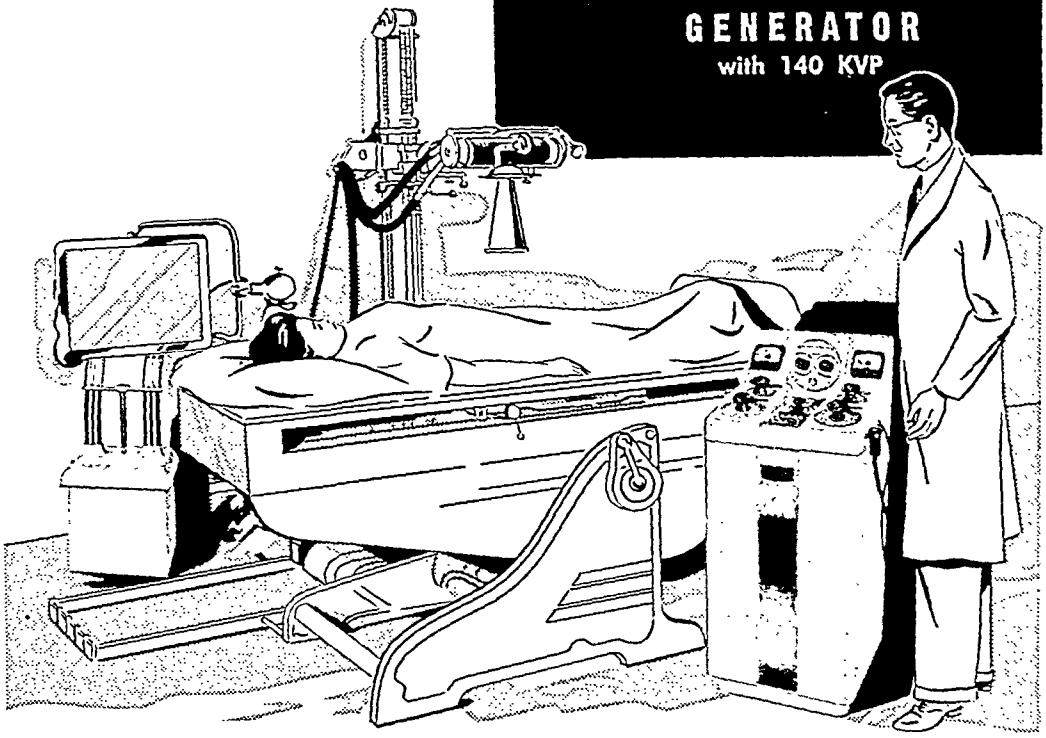
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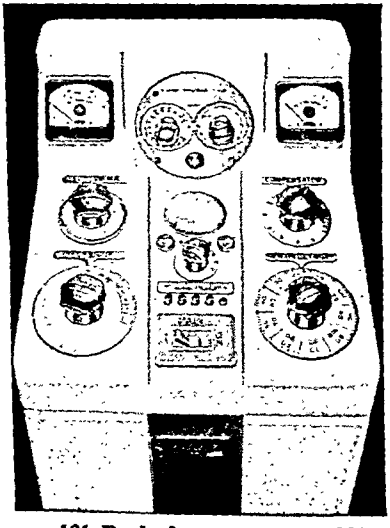
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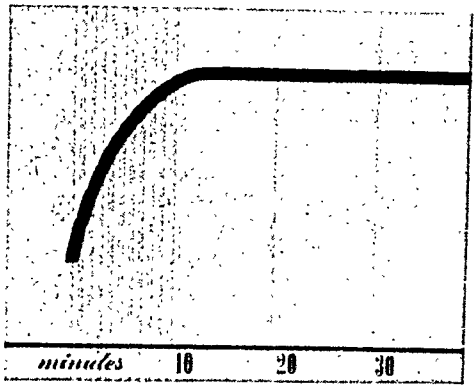
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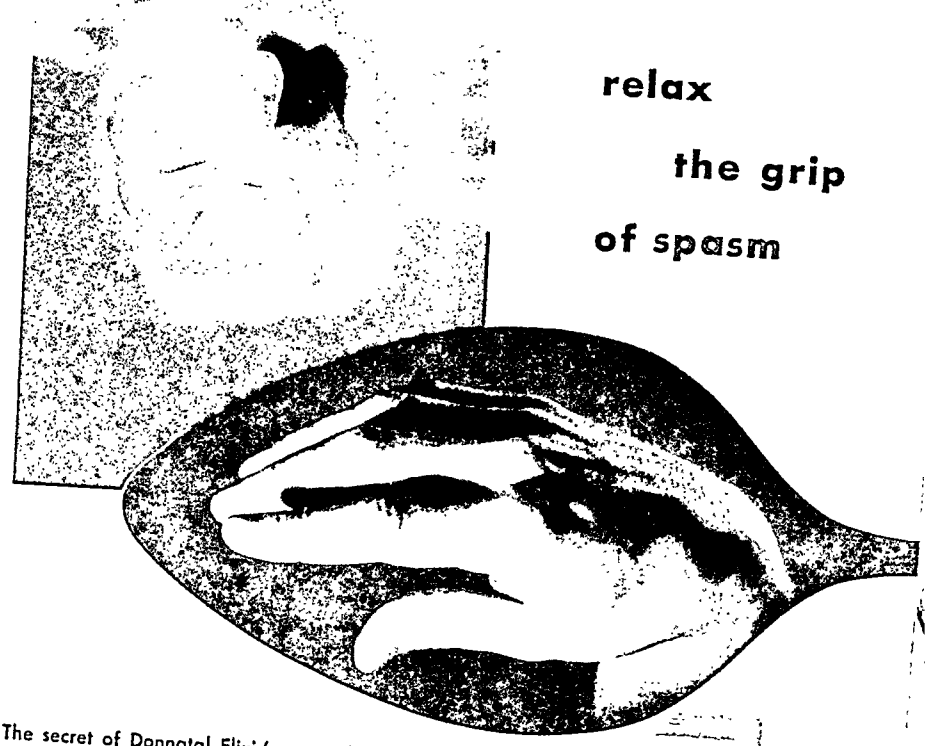
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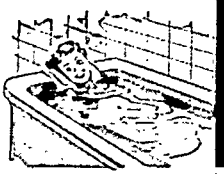
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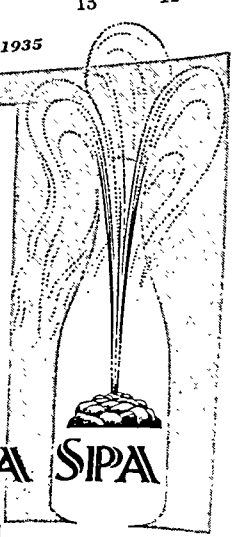
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Age group	No. Cases	Improvement: Moderate	Marked	None
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50-60 . .	41	32	5	4
60-70 . .	34	22	8	4
70-80 . .	18	16	0	2
80- . .	3	3	0	0
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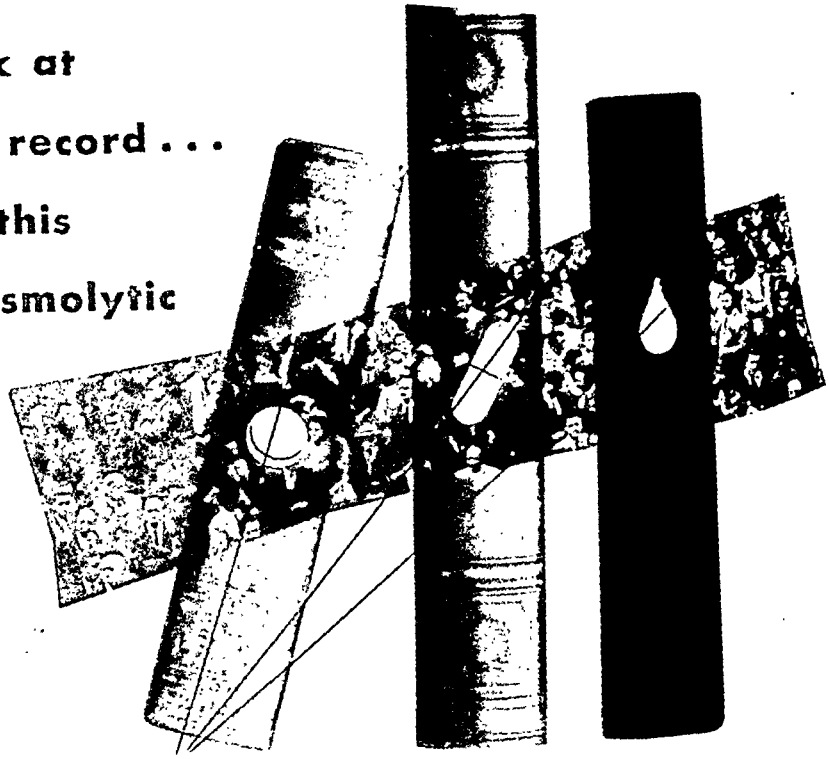
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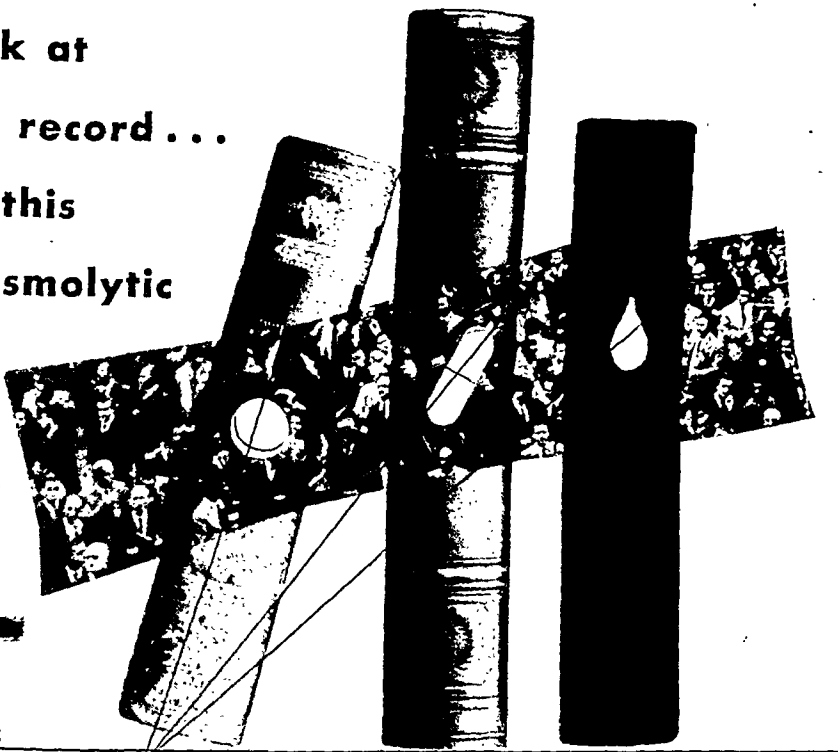
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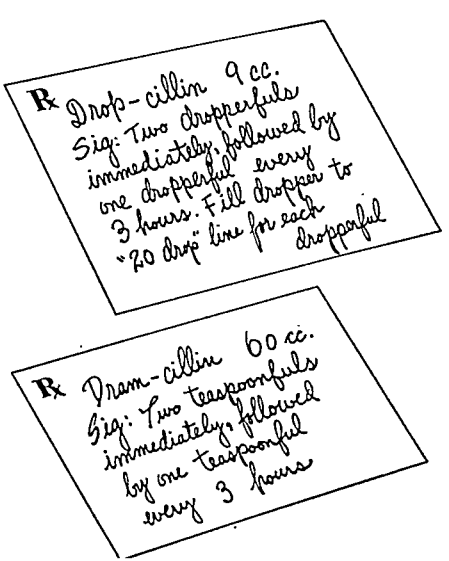


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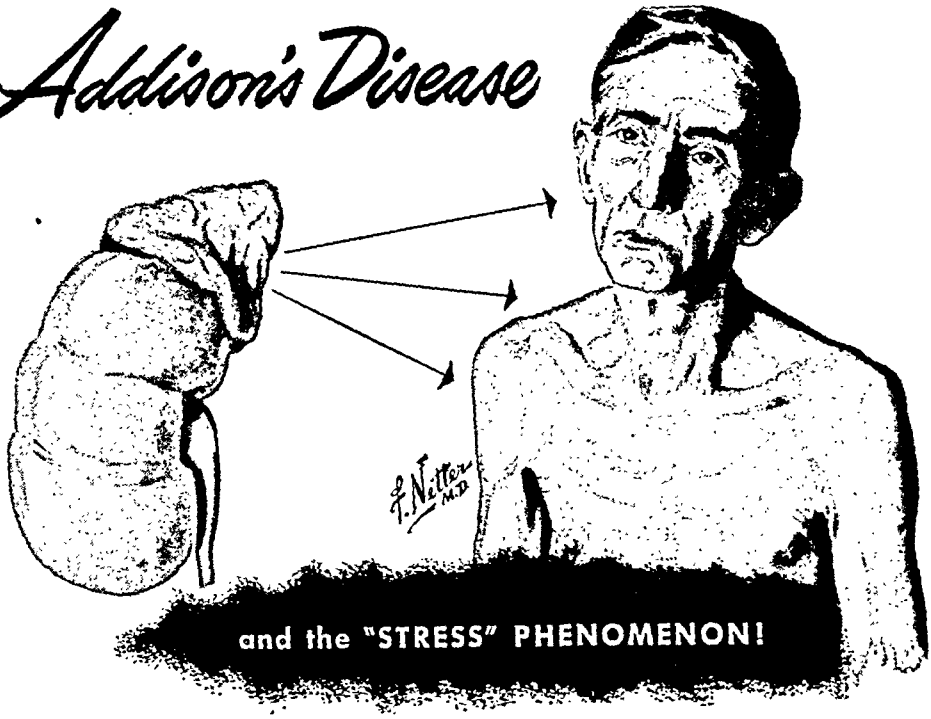
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1. MacFarland, M. L., and McHenry, E. W.: Further Observations on the Lipotropic Need for Inositol, J. Biol. Chem. *176*:429 (Oct.) 1948.
2. Gavin, G., and McHenry, E. W.: Inositol: A Lipotropic Factor, J. Biol. Chem. *139*:485 (May) 1941.
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5. Broun, G. O.: Treatment of Hepatic Cirrhosis, Postgrad. Med. *4*:203 (Sept.) 1948.

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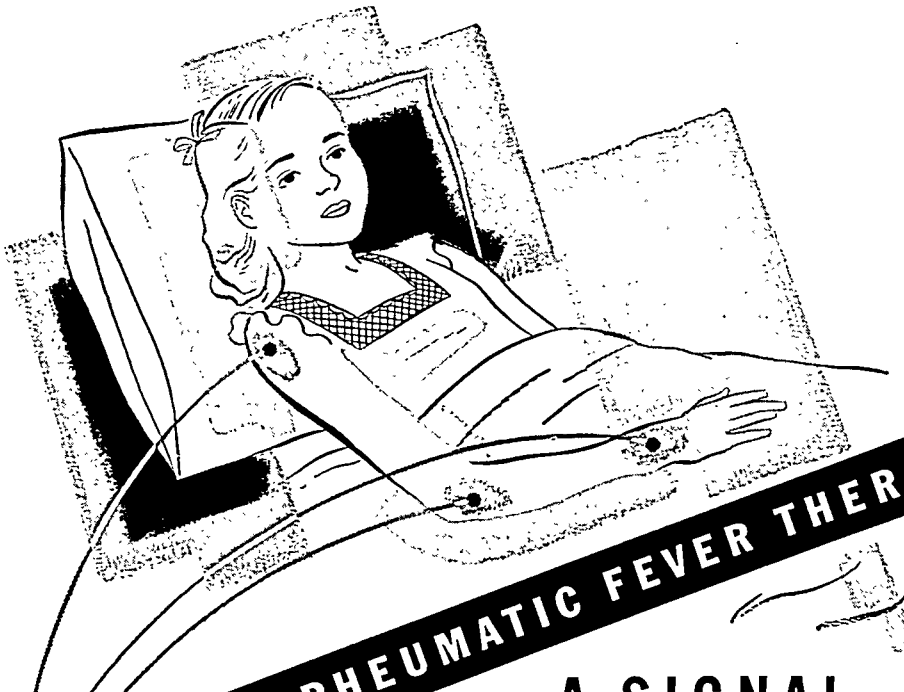
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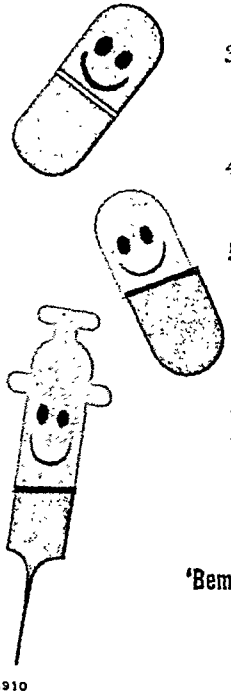
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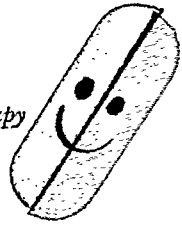
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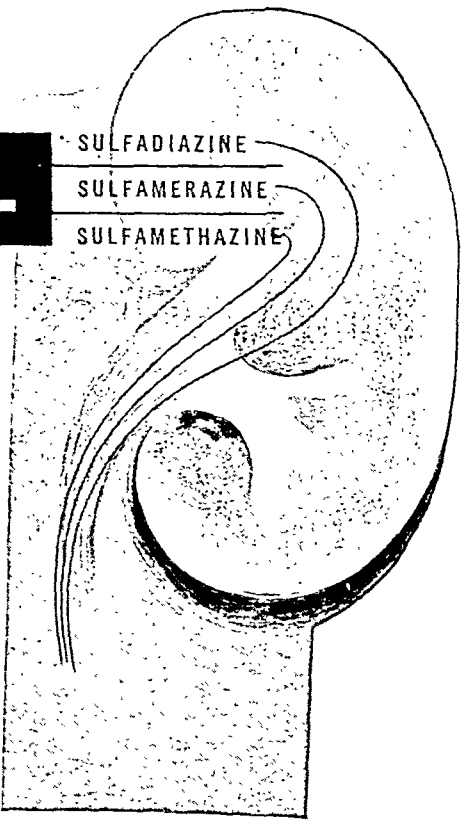
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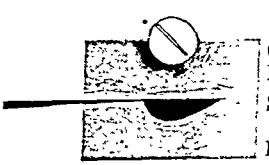
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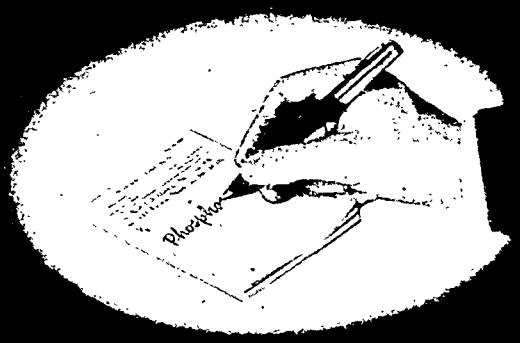
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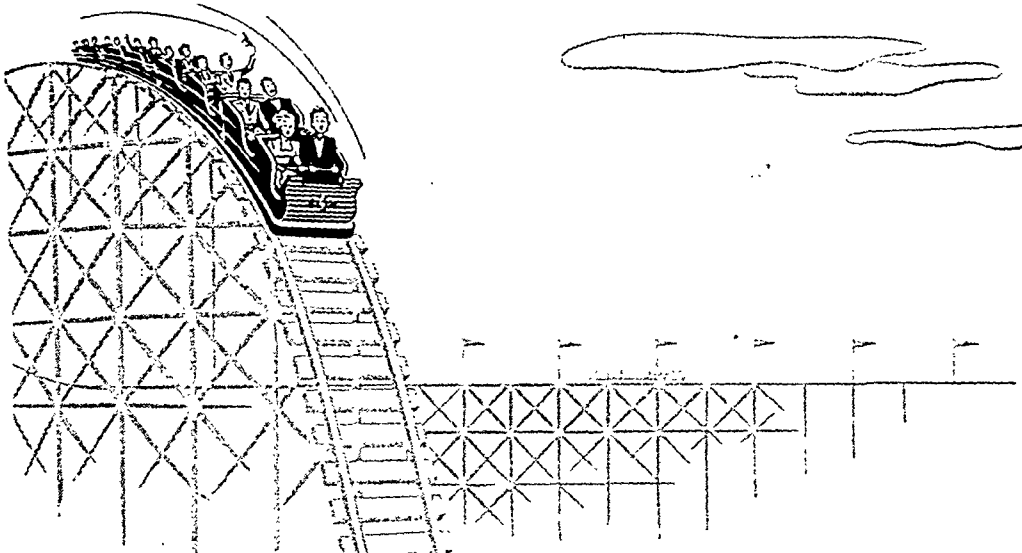
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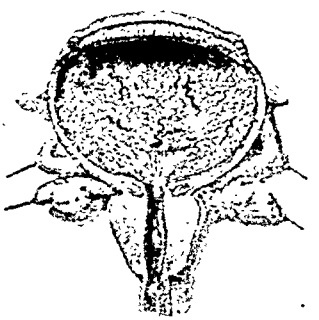


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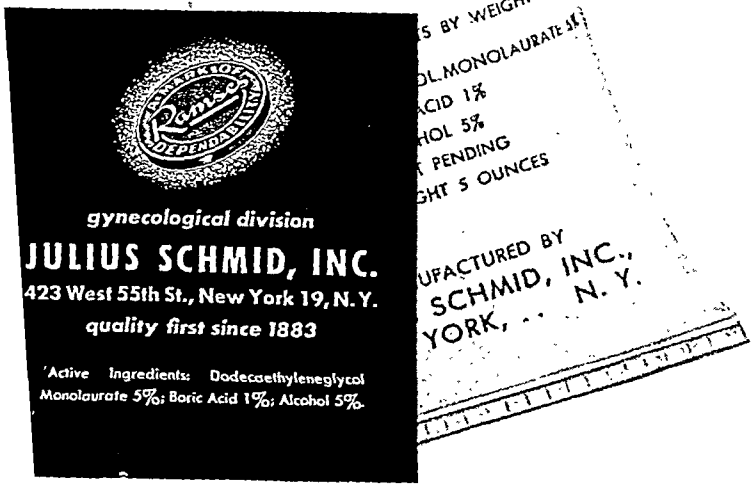
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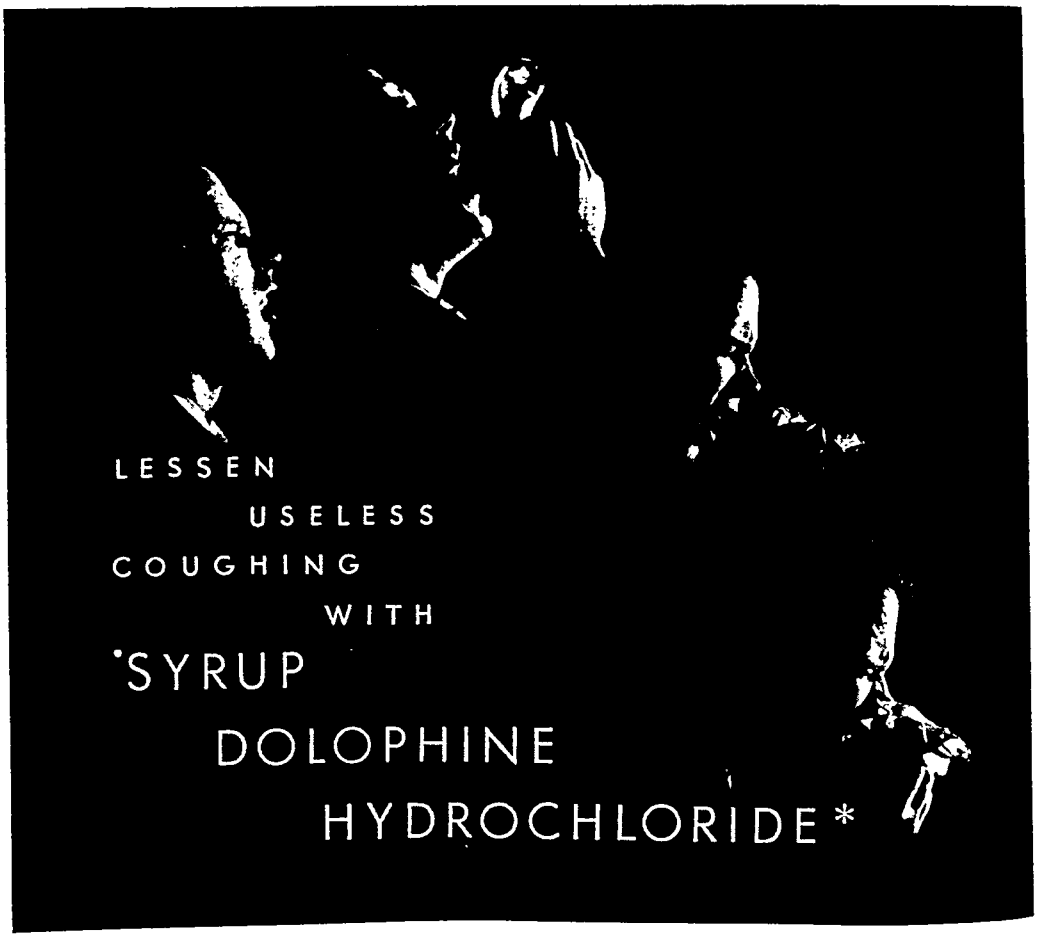
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VOLUME 49 DECEMBER 15, 1949 NUMBER 24

Editorials

Christmas, 1949

To every member of the Medical Society of the State of New York, the officers of the Society, the Publication Committee, the Editors, and the Associate Editorial Board, extend heartiest greetings and best wishes for a joyous Christmas.

All over the world the tenuous flame of the torch of freedom is flickering; here and there its light has ceased to penetrate the surrounding murk; the quenched embers glow secretly, if they yet retain any remaining warmth, only in the recesses of men's souls. There they are kept alive, secure by hope, love, charity, and the help of God.

The evanescent tyranny of manlike beasts, annoying temporary oppression by officials vested with a little brief authority, the evanescent exercise of excessive controls by big governments, bigotry, meddlesomeness, unkindness, stupidity can be endured because of the certainty of their very impermanence and the sure knowledge that the small, continuing spark of spiritual aspiration, fanned by hope, will surely burst again into strong bright flame to light the faltering progress of mankind onward and upward. Merry Christmas and, with Tiny Tim, "God bless us all—every one."

To Thyself Be True

It is related of the late Peter Marshall, D.D., formerly chaplain of the U.S. Senate, that in one of his opening prayers he said: "O God! Give us clear vision that we may know where to stand and what to stand for —because unless we stand for something we shall fall for anything."[1]

The code of ethics of the medical profes-

[1] Daily News, Nov. 15, 1949, p. 4.

sion and the twelve-point program of the American Medical Association, respectively, have fulfilled the requirements of this spicy invocation, the former for centuries and the latter for decades in so far as American medicine is concerned. Support of the Medical Practice Act in this State by the majority of the physicians, the long and important history of which Act we have recently condensed in these columns, is another striking example of a corollary fulfillment of the spirit of the good chaplain's prayer, *in the public interest by the profession.*[2]

We are about to face again in this State the annual onslaught of quackery as we have done in every recent session of the Honorable the Legislature. That onslaught must be met determinedly; we must know where we stand and what we stand for; but, more importantly, the legislators and the public must understand it, too. If they do not, there is no telling what they may fall for! Chiropractic, naturopathy, all the devices shrewdly calculated to serve as short-cuts to the pretension of real medical knowledge and skill may be expected to parade their shallow profundity, their shoddy charlatanism, their evasive humbuggery in crafty legislative proposals for licensure.

Citizen-dupes will be marshalled to support this onslaught; legislators will be swamped with mail; letters, petitions, postcards will carry the message that the public must have its favorite quackery legalized.

Little of the mail will oppose such bill or bills as may be introduced, over the signature of doctors, if past experience is any criterion. In 1949 the chiropractic bill barely failed of passage. This JOURNAL again urges all doctors of medicine in the State to tell their legislators where the individual doctors stand and what they stand for; otherwise.....

[2] NEW YORK STATE J. MED. 49: 2255 (Oct. 1) 1949.

The Medical Problems of Rural Health

These problems could be boiled down to the statement: Not enough of anything available where needed. The Medical Society of the State of New York has for years studied the needs of the rural areas for better medical service, more medical and ancillary personnel, expanded hospital and diagnostic facilities, and possible ways of providing them. The New York State Department of Health has also given these problems a vast amount of study looking to the solution of many public health and sanitation needs. Jointly, the Commissioner of Health and the Council Committee on Public Health and Education have for long conferred and have jointly and severally obtained action over the years by which beginnings have been made in solving some of the problems. Much remains to be done. Vast amounts of information as to needs are available as the result of former and continuing study. What about more action?

In the November issue of *Health News*, Dr. Herman E. Hilleboe, Commissioner of Health, makes some very concrete suggestions. He urges a review of the steps taken by the Michigan State Medical Society:

> Following this [A.M.A.] conference the State of Michigan began immediately to a The Michigan State Medical Society put asi $2,000 for a State conference. Early in 194 a State meeting on this subject was held an 28 lay organizations were enlisted as cospor sors. As a result of this meeting, five practic steps were taken. (1) The Michigan Founda tion for Medical and Health Education wa formed to advance loans to medical student who agreed to enter rural practice. (2) A physician placement service was organized under the auspices of the State Society. (3) A nurse recruitment program was organized. (4) A plan for more local community health councils was formed. (5) A yearly State conference on rural health was determined upon.
>
> The Michigan Foundation for Medical and Health Education began its operation by soliciting funds from lay organizations, wealthy citizens, and other possible sources. By January, 1949, it had $100,000, and it will award sometime this month its first scholarship loans to medical students who are willing to go into rural practice.

Studies have been under way by the Society for some years relating to the problems of rural medical service peculiar to this State and with the object of eliciting the help and interest of the Grange, the 4-H Clubs, and the Joint Hospital Survey and Planning Commission. Basically, the task of increasing the number and improving the training of general practitioners has been recognized as of first importance. Already in several sections of the State experimental work is going forward in an effort by medical schools and hospitals to increase hospital internship training in general practice and to revive something like the old preceptorships, the students actually working in the offices of and making calls with rural medical practitioners. The House of Delegates at the 1949 Annual Meeting suggested to the Council the possible formation of a Section on General Practice. The Council is recommending the formation of such a section now. Also in October of this year the New York State component of the Academy of General Practice held its first scientific meeting at Syracuse.

A survey of the needs for medical personnel has been completed recently by the State Medical Society; the Joint Hospital Survey and Planning Commission is now gathering factual material relative to existing and needed facilities; studies are in progress by the Medical Society of the State of New York on the feasibility of the establishment of group practice in rural areas, and the Women's Auxiliaries of the State and county societies have been active in assisting nurse recruitment and in the study of rural health problems. The further steps suggested by the Commissioner of Health will unquestionably be considered by the Council Committee on Public Health and Education at an early date, including the Kansas experiments along this line.

The Hospital and the Physician

The care of the sick in the average American home is rapidly disappearing. This applies not only to serious illnesses, but also to a multiplicity of minor ones as well. For many and adequate reasons, the hospital has been substituted for the home. Better medicine can be practiced there, not only from the standpoint of the physician, but, more important still, because of the better results to the patients. It is apparent, therefore, that, in the future, hospital care will continue to increase in quantity, prestige, and value. There is no possibility that it will decrease.

Over the years, moreover, the hospitals, especially the larger ones, have continually multiplied their functions. In addition to the scientific care of the sick they have become institutions of social service, of education for doctors, nurses, social service personnel, and others, ranging from librarians to potential hospital superintendents. Some, as those connected with teaching centers, are engaged in the tremendously expensive problems of the education of medical students, as well as medical research.

The larger part of the hospital load is carried by the voluntary hospitals. Their income is derived largely from patients. It may be supplemented by community chest contributions, or from philanthropic gifts, now rapidly diminishing. They have been harassed by ever-increasing costs for labor, food, and materials. They are, in fact, threatened with insolvency. State as well as national government is keenly aware of its degree of insolvency and anticipates subsidies.

Subsidies are not an evil in themselves. They can be constructive, but also they may be destructive. They can be constructive if they relieve the hospital of the financial burden of the education of so many people who not only make the hospital more efficient but also will serve the community in the future. These are now largely paid for at the cashier's office by the patient.

Subsidies can be constructive, if they pay for intelligent research. A constructive idea also would be one for the establishment of a commission to study the problems of hospitals, both structurally and functionally, in relation to the community in which they might serve. Such a commission should be guided by the invariable rule, old-fashioned though it may be, that no hospital should be

built beyond the capacity of the local community to finance it. One hundred fifty thousand dollars of extra cost due to unnecessary cubic feet in rooms or halls, or to ornate decorations, usually makes the difference between solvency and insolvency when it comes to amortizing the mortgage.

Far too many hospitals are doomed to financial failure as soon as they are completed. This is largely due to the fact that the construction is not rigidly controlled by honest bookkeeping as applied to anticipated income and expense. This should be done while the hospital is still on paper—before a stone is laid. Instead of this, the guiding light is the ideas of visionary and expansive planners. Good medicine and surgery are performed by men—not by marble columns or wide corridors.

Under the political philosophy of recent years it is assumed that man is unable to care for himself and his future, that he needs constant help and, what is more important, supervision. The power of unlimited money as subsidies has caused a convergence of welfare workers on every conceivable point of attack. One of these is the hospital which, in turn, can be used for the expansion of the same ideas.

Destructive subsidies, therefore, are those that build or subsidize hospitals directly, because control must inevitably follow. This endangers the autonomy of the hospital and, secondly, the autonomy of the physician.

In New York State the lay board has legal control of the physical plant, the finances, the medical staff, the nursing staff, and the personnel. The physician is legally appointed to the staff by the lay board, and, although the latter may consult the medical staff as to its appointments, they are under no obligation to follow such a course. In spite of this, however, the relationship between the lay boards and the medical staffs of our hospitals has usually been amicable. Each has kept to its field and worked together for the common good. The lay board has retained its power for local service, and the physician his independence. This will probably remain so as long as the hospital itself can remain solvent. Should it have to accept subsidy, things might be altered.

It is unthinkable that subsidy would long continue from any source without control following from the same source. All previous experience proves that. The nature of that control cannot be foreseen, but undoubtedly it will be flavored by the social theories of those who exercise it. It can be expansive if backed by the general fund of the taxpayers' money.

It behooves the doctor, therefore, while there might be time, to consider actively the solvency of his own castle—of his workshop. He should join actively with the lay board in sympathetic understanding, so that both may become allergic to unnecessary expense and debt—to the end that his hospital remains solvent. He should, by studying the functional activities of the hospital, of himself, and of his colleagues, make medical care in his own institution more efficient and less expensive. He might also be stimulated toward this activity by the thought that, if he does not do it, he might quickly be in jeopardy.

At present he is working in a place controlled by his friends, although he is but one of the personnel. Should his friends be superseded his security and dignity would be imperiled. The intense competition among physicians, so valuable to the patient, would also disappear, and the quality of medical care would suffer in consequence.

The Creeping Paralysis of Dependency, II

Physicians are in a position to assess the subtle corruption of dependency; they have to contend with it in many cases of illness in which it is a factor—the dependency which demands "security" as a sop for the vague fear that all is not well, that creeping paralysis of the will which aggravates sickness, prolongs recovery, provokes relapses, and drives the cost of sickness ever higher, the cost of living ever upward, makes the tax bill ever greater; the dependency which exhausts the coffers of private charity, over-

loads public assistance, permits private taxation to be levied, for example, on every ton of coal mined to be paid by every coal-using citizen for the "health and welfare" of an elite protectorate who *may* work one or two days a week *if permitted.* Surely, they must need a "health and welfare" fund of huge proportions since their house is "empty, swept, and garnished,"[1] ready for occupancy by the seven devils: idleness, vainglory, pride, preferment, tyranny, hate, and fear.

Within the labor movement, dependency grows constantly, witheringly as a result of the pursuit of the will o'-the-wisp "security." In the larger field of national affairs, authority is proposing "social security" on an ever more grandiose scale, apparently unmindful that "security," whether social or not, is preceded by debt, accompanied by dependency, and followed by destruction.

Consider the current public debt, consider the current commitments of this nation to others, consider the proposed domestic legislation to increase "security" and increase dependency, citizen-taxpayers! Shall we travel that road to its end? Who then can be secure, from what and for how long?

[1] Matthew 12 : 44.

Current Editorial Comment

A Great Medical Discovery. Some highly placed but invisible figure in the administration of the United States government has made during the past sixteen years an important medical discovery. It is that of visual fatigue.

The average reader of the average paper in this country is easily bored with counting ciphers. Members of the generation awed by the accumulation in private hands of the Ford, Rockefeller, and Carnegie millions now see the next generation led down the garden path in precisely the opposite direction, but on a vastly more magnificent scale. The amassing of millions in private hands is a matter for public execration. The spending of billions by government is one for public admiration. We quote from the financial section of the New York *Times*, Sunday, October 9, 1949:

> VAST EXPENSE SEEN IN SOCIAL SECURITY
>
> Possible annual cost is placed at $13,000,000,000 fifty years in the future
>
> In 10 years the annual cost will be $3,800,000,000

And on top of this we, the nation with the best record of national health, are being asked to institute a system of socialized medicine.

We gladly invite the accusation of naiveté by asking this question: Why is it moral for governments to do things for which a private individual would be put in jail? Upon what meat do these our politicians feed, that they are grown so omniscient? The first question a private banker would ask of a client wishing to launch a new idea—a new vision—if you please, is "What is your credit rating?"

We do not wish to put too much of a strain upon our readers, but we ask them to consider for a moment Government as an individual—Mr. Smith. Mr. Smith's heart bleeds for the unfortunates who cannot themselves meet the cost of medical care. For their benefit he would tax the entire people, sick and well alike. By this means he would benefit a proportion of the nation. The majority of taxpayers—and those having money to pay taxes are usually the smarter or the more industrious, plodding, conscientious proportion of the population—would not take long to discover that, if they had to shell out money for the care of the sick no matter how well they were themselves, they would lose their incentive to keep well. Heart Associations, Cancer Clinics, Foundations for Infantile Paralysis, and Tuberculosis and Health Associations keep the public continuously aware of the pitiful—and frequently deserving—plight of sufferers from such plagues.

The public is not aware, but the medical profession is, of the vastly greater numbers of people with psychosomatic ailments who are not ill because they sometimes cannot afford to be. Neither is Mr. Smith. So what is Mr. Smith's next move in his program of measureless devotion to the public welfare?

He sues the Atlantic and Pacific Com-

pany because, through their far-flung combinations, their efficiency methods, and their business acumen, over many years they have succeeded in supplying the underprivileged masses with cheaper food. They are Big Business, which for some reason he doesn't like. He doesn't see the good results because he resents the methods by which they are attained.

If Mr. Smith were submitted to an examination by a board of impartial psychiatrists, we think he might be adjudged a schizophrenic.

We find this transposition of government to individual very disturbing. What do you think?

Retail Druggists' National Association. In September, the Federal Security Administrator's speech to the National Retail Druggists' Association sought to win the support of this organization for the administration's national compulsory health insurance program.[1]

Refusal of the National Association of Retail Druggists to accept the Federal Security Administrator's proposal for a compulsory health insurance program has been hailed by Mr. Robert L. Lund, president of the St. Louis College of Pharmacy, as the rejection of "an appeal to the pocketbook rather than to principle."

Mr. Lund referred to the action of NARD's 51st annual convention in September, which reaffirmed opposition to socialized medicine despite a personal appeal by Mr. Oscar R. Ewing, FSA chieftain. A resolution objecting to the political health scheme was passed by delegates after Ewing's speech in which he openly stated that "I do not see how the retail druggist can fail to profit enormously" under the project.

Pointing to the "specious and offensive logic" of the speech, Mr. Lund said that Ewing "misunderstood the character of the druggists of America in his effort to bring national health to the level of merely their stock in trade, cash registers, and profit."

"It's reassuring to all of us who are concerned for free American institutions to know that the druggists of this country believe that the question of the people's health should be decided on principle and on the basis of achievements of our existing medical system, recognized to be the finest in the world," Lund continued.

"The druggists of America have shown clearly that, so far as they are concerned, this question is not to be answered by any appeal to short-term, selfish, commercial interest, but by reference to the true principles and values involved—the welfare and the freedom of all Americans."

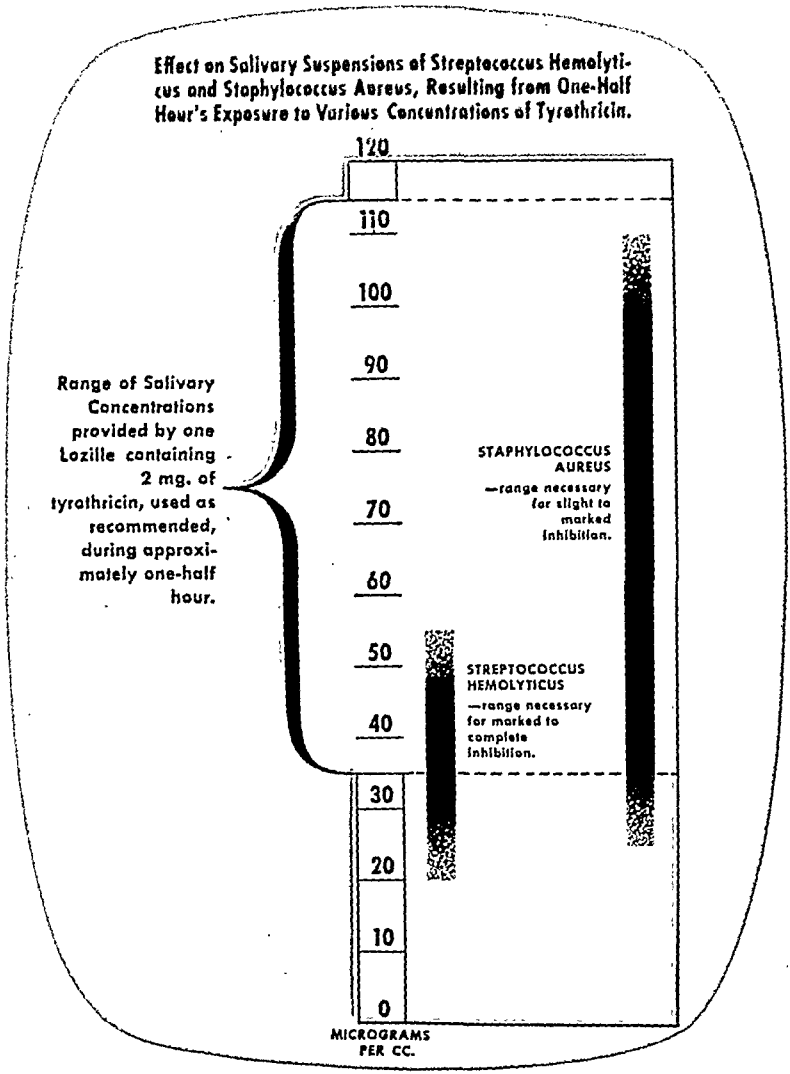
This attitude of the retail druggists as expressed by the president of the St. Louis College of Pharmacy seems to us to be a fitting rebuke to salesmen of national compulsory health insurance who can apparently find so little to commend it that they must resort to an appeal to the most offensive and sordid commercialism.

[1] Sept. 20, 1949.

OFFICE MANAGEMENT OF VENEREAL DISEASES

"The time has now arrived when the diagnosis and treatment of venereal diseases should properly revert to the office of the private physician . . . ." are the words prominently displayed on the cover of a valuable and useful booklet recently issued by the Bureau of Social Hygiene of the New York City Department of Health, in cooperation with the New York State Department of Health and the United States Public Health Service. This booklet outlines for the physician the management of venereal disease patients and is up-to-date on the new methods of treatment, including penicillin and other antibiotic agents, although the final word on these remedies cannot be written at this time.

The publication is well worthy of the attention of the practitioner and may be obtained from the Department of Health, 125 Worth Street, New York 13, New York.



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Scientific Articles

GASTRIC RESECTION FOR PEPTIC ULCER IN POOR-RISK PATIENTS

JOHN D. STEWART, M.D., HARRY W. HALE, JR., M.D., and JAMES E. HIX, M.D., Buffalo, New York

(*From the Edward J. Meyer Memorial Hospital and the Department of Surgery of the University of Buffalo School of Medicine*)

IN CONSIDERING the advisability of any surgical operation, the benefit likely to be obtained by the patient must be balanced against the risk of the procedure. Furthermore, the patient is interested in the risk of operation in his own case with the particular circumstances at hand, rather than in statistical abstractions. The surgeon must estimate the patient's physiologic reserve and the effect of the surgical lesion as well as incidental disease, as these may bear on his fitness for surgical operation. At the same time the surgeon must know what the risk of the proposed operation amounts to in his own hands with the facilities available to him.

Although the term "elective" is used for surgical operation under certain conditions, actually the indications for surgical treatment are always relative, not absolute. Consequently, with advances in the art and science of surgery, its proper scope broadens. The surgeon, as well as the referring physician, must always keep this point in mind in order to advise the patient wisely. For the physician to gauge the place of a surgical operation on the basis of its benefits and dangers twenty years ago or even ten years ago is manifestly unreasonable and unfair to the patient. The present study was undertaken to obtain information on the current risk of the operation of subtotal gastric resection, as performed for the relief of complications of peptic ulcer in a depleted, poor-risk group of patients. The series comprises 120 consecutive cases recently operated on by the senior author.

The Hoffmeister type of subtotal gastrectomy has been used almost exclusively, and the anastomosis has been of the antecolic, short jejunal loop variety. Actual measurements have shown an average excision of 80 per cent of the stomach. When the ulcer was duodenal, it was usually, but not always, excised. In the penetrating duodenal ulcer with extensive involvement of surrounding tissues and a pancreatic crater, the operation described by Allen has at times been employed with satisfaction.[1] Ether anesthesia by closed system and endotracheal catheter has been used, and early ambulation has been routinely practiced with the patients walking within twenty-four hours after operation. Penicillin has been used postoperatively and in a few cases streptomycin as well. Blood transfusion has been freely used during and after operation, not only in the acutely bled-out patients but in the nonhemorrhagic cases.

The indications for gastric resection in the 120 cases are shown in Table 1. The commonest finding was intractability to medical management, which usually meant penetration of the ulcer to such an extent as to involve neighboring structures outside the stomach or duodenum. In many instances, the ulcer had actually burrowed into other viscera. Often there were several of the so-called surgical complications of peptic ulcer present in the same patient. Thirty-four of the patients were suffering from acute massive hemorrhage and were operated upon within twenty-four hours after admission to the hospital.

TABLE 1.—INDICATIONS FOR GASTRIC RESECTION IN PEPTIC ULCER IN 120 PATIENTS WITH 163 COMPLICATIONS

Complication	Number
Intractability to treatment	37
Intractability and obstruction	17
Intractability and recurrent bleeding	13
Intractability, bleeding, and obstruction	3
Acute massive hemorrhage	34
Suspected malignancy	7
Recurrent bleeding	4
Obstruction	5

Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo, Section on Surgery, May 6, 1949.

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In each of these the red cell count was 2,500,000 per cu. mm. or less, or the total circulating red cell mass was 60 per cent, or less, of normal. The less seriously exsanguinated patients were not operated upon until they had recovered from the effects of hemorrhage, for a specific study of the merits of gastric resection for acutely massively bleeding ulcer was being carried out.

It is of special interest that during the same period of time, while 120 patients had gastric resection for the indications mentioned, 13 patients had gastric resection for supposedly benign gastric ulcer which turned out to be malignant. Since 42 of the 120 patients operated on for peptic ulcer had benign gastric ulcer, it follows that the incidence of unsuspected cancer was 13 out of 55 gastric ulcerations coming to operation, or 23.6 per cent. Of further interest was the fact that there were 47 patients during the same period of time hospitalized for perforation of peptic ulcer. Perforation is, therefore, somewhat less common than massive hemorrhage as a complication, for a control group of 30 cases of massive hemorrhage during the same period were not operated upon.

The average duration of symptoms of peptic ulcer in the 120 patients of the series was eight and eight-tenths years. Twenty-five of the group had had previous operations for peptic ulcer—in 12 instances suture of perforation. Twenty of the 120 patients were classified as chronic alcoholics, while in 13 frank malnutrition and avitaminosis were present. The weight loss, as averaged from the data obtainable with reasonable accuracy in 84 patients, was 14 pounds. Two patients were so depleted that ascitic fluid was present in the peritoneal cavity at the time of gastric resection; in both, convalescence was uneventful.

Shown in Table 2 is information to indicate associated diseases found in the series of 120 patients. The degenerative diseases, malnutrition, chronic alcoholism, and pulmonary tuberculosis were common. Since the patients were in

TABLE 2.—Associated Disease in 120 Patients Having Gastric Resection for Peptic Ulcer

Disease	Number	
Heart disease		24
Hypertensive	13	
Arteriosclerotic	7	
Rheumatic	3	
Luetic	1	
Pulmonary disease		19
Active tuberculosis	7	
Emphysema, severe	5	
Bronchiectasis	3	
Kyphoscoliosis, severe	4	
Malnutrition and avitaminosis		13
Chronic alcoholism		20
Diabetes mellitus		2
Syphilis of central nervous system		2
Osteoarthritis, severe		2
Miscellaneous		36

TABLE 3.—Age Distribution of 120 Patients Having Gastric Resection for Peptic Ulcer

	Age Distribution (Years)							
	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90
Acute massive hemorrhage cases (34)	0	3	6	5	4	13	3	
Not acutely bleeding (86)	1	3	11	22	27	17	3	
Total	1	6	17	27	31	30	6	

the older age group, the high incidence of hypertensive cardiovascular disease was not surprising. Five patients had suffered one or more bouts of cardiac decompensation, and two showed signs of decompensation on admission to hospital. Four were taking digitalis when admitted; four were suffering from angina pectoris, and one had had coronary occlusion. Nine patients showed electrocardiographic changes denoting diffuse myocardial damage, and in seven cardiac enlargement on radiographic examination was pronounced. Four patients had systolic blood pressure above 200 at operation.

Of the 19 patients with pulmonary disease, the seven with active pulmonary tuberculosis were of particular interest. Despite the presence of cavitation, which was bilateral in one case, operation and anesthesia were well borne. In the group of patients with malnutrition and avitaminosis, as in those with chronic alcoholism, the peptic ulcers were found to be especially large, and the involvement of neighboring organs was often severe. In two of these patients ascites was present at the time of gastric resection. The miscellaneous associated diseases included a wide variety of lesions, such as carcinoma of the larynx, psychoneurosis (three patients), neurofibromatosis, epilepsy, and cholecystitis with cholelithiasis. No patient in the series had cirrhosis of the liver.

That the series of patients represented a wide distribution of age is shown in Table 3. However, the preponderance was in the older age group, and the average age for the entire group was fifty-one and one-half years. The oldest patient, a man of eighty-five years, gave a history of peptic ulcer going back for over twenty years. The youngest patient, eighteen years of age, had had four episodes of massive hemorrhage from duodenal ulcer since the age of sixteen. The fifth, sixth, and seventh decades showed the highest number of cases. The series is too small to warrant statistical conclusions, but it is notable that in the 34 patients acutely exsanguinated from hemorrhagic ulcer the average age was somewhat higher and a disproportionate number of patients were in the seventh decade of life.

With regard to laboratory data, interest centers chiefly in the group of patients admitted for acute massive hemorrhage. This group of 34 patients

met the following criteria of classification: (1) There had been gross bleeding into the gastrointestinal tract with attendant signs of cerebral anoxia within one week and (2) the admission red cell count was 2,500,000 per cu. mm. or less, or the total circulating red cell mass was reduced to 60 per cent, or less, of normal. These patients had blood replacement and gastric resection within twenty-four hours after admission. The average initial red blood cell count for the 34 patients of this group was 2,610,000 per cu. mm. The average for the nonhemorrhagic group was 4,250,000 per cu. mm., there being 72 observations recorded. The plasma protein concentration, as averaged from 30 hemorrhagic cases on admission, was 5.95 Gm. per 100 cc., and for 59 nonhemorrhagic cases the average value was about the same (5.92 Gm. per 100 cc.). The lowest plasma protein concentration recorded for the entire group was 4.0 Gm. per 100 cc.

As observed at operation 62.5 per cent of the ulcers were duodenal, 23.3 per cent were gastric, and 11.6 per cent were both gastric and duodenal. In one patient the site of the ulcer was not recorded, and in two patients the ulcer was marginal and based on gastroenterostomy performed years before. In 49 cases the ulcer showed penetration into the pancreas and in four penetration into the liver. Four patients had resection of jejunum and old posterior gastroenterostomy as well as gastric resection, and one patient with a gastrojejunocolonic fistula also had to have resection of the colon.

In considering postoperative complications in the series, as shown in Table 4, pulmonary atelectasis and infection were the commonest and occurred singly or together in 32 patients. In no instance were these complications fatal, and, as a rule, convalescence of the patient was retarded only slightly, if at all. In four cases there was enough bleeding to be noted in the nasogastric suction drainage during the first forty-eight hours after operation. In two instances there was temporary gastric retention following operation. There were two instances of wound dehiscence, four of wound infection, four of thrombophlebitis, and one of nonfatal pulmonary embolism.

TABLE 4.—POSTOPERATIVE COMPLICATIONS IN 115 GASTRIC RESECTIONS FOR PEPTIC ULCER (5 FATALITIES NOT INCLUDED)

Complication	Number	
Lungs		34
Pulmonary edema	1	
Atelectasis	19	
Pneumonia	13	
Pleurisy	1	
Gastrointestinal tract		15
Bleeding	4	
Dumping syndrome	2	
Diarrhea, mild	7	
Gastric retention, mild	2	
Circulation		11
Pulmonary embolism	1	
Thrombophlebitis	4	
Transfusion reactions	6	
Wound		7
Dehiscence	2	
Infection	4	
Hematoma	1	

TABLE 5.—MORTALITY FOR GASTRIC RESECTION IN 120 CONSECUTIVE OPERATIONS FOR COMPLICATED PEPTIC ULCER

Indications for Operation	Number	Deaths
Acute massive hemorrhage	34	5
Other surgical complications	86	0
Total	120	5

In Table 5 are shown mortality figures for the series. The five deaths were all in the group operated upon as a life-saving measure for exsanguinating hemorrhage. Brief abstracts of these five cases are included below. It should be mentioned that the mortality rate in a similar group of cases of massive bleeding treated nonsurgically was approximately twice as great.

Case Reports

Case 1.—S. P., a seventy-four-year-old man with a history of peptic ulcer of two years duration, was brought into the hospital unconscious from massive hemorrhage into the upper gastrointestinal tract. He had been vomiting blood for twenty-four hours. Blood pressure and pulse responded somewhat to transfusions, but the patient remained disoriented. He was operated upon within twenty-four hours after admission, and gastric resection was performed for a large duodenal ulcer penetrating into the pancreas and liver. The patient died the following day, and autopsy showed extensive hemorrhagic softening of frontal, parietal, and occipital lobes and basal ganglia.

Case 2.—J. K., a fifty-six-year-old man with a history of ulcer dyspepsia of four months duration, came to the hospital after four days of exsanguinating hemorrhages into the upper gastrointestinal tract. He was not in shock when admitted. After transfusion therapy he was operated upon, and a duodenal ulcer with pancreatic penetration was excised with subtotal gastrectomy. The immediate postoperative course was satisfactory but the patient died on the sixth postoperative day after an episode of hematemesis. Autopsy was not performed.

Case 3.—W. K., a sixty-five-year-old man, was admitted to the medical service for arteriosclerotic heart disease with decompensation. Five days after admission he had severe hematemesis and melena and went into collapse. At operation he was found to have a gastric ulcer with pancreatic adhesion, and gastric resection was performed. His postoperative course was excellent until the third day when he died suddenly while being examined. He had been digitalized prior to operation. No autopsy was performed, but death was attributed to coronary artery disease.

Case 4.—M. P., a sixty-one-year-old man with severe hunchback deformity, was admitted in hemor-

In each of these the red cell count was 2,500,000 per cu. mm. or less, or the total circulating red cell mass was 60 per cent, or less, of normal. The less seriously exsanguinated patients were not operated upon until they had recovered from the effects of hemorrhage, for a specific study of the merits of gastric resection for acutely massively bleeding ulcer was being carried out.

It is of special interest that during the same period of time, while 120 patients had gastric resection for the indications mentioned, 13 patients had gastric resection for supposedly benign gastric ulcer which turned out to be malignant. Since 42 of the 120 patients operated on for peptic ulcer had benign gastric ulcer, it follows that the incidence of unsuspected cancer was 13 out of 55 gastric ulcerations coming to operation, or 23.6 per cent. Of further interest was the fact that there were 47 patients during the same period of time hospitalized for perforation of peptic ulcer. Perforation is, therefore, somewhat less common than massive hemorrhage as a complication, for a control group of 30 cases of massive hemorrhage during the same period were not operated upon.

The average duration of symptoms of peptic ulcer in the 120 patients of the series was eight and eight-tenths years. Twenty-five of the group had had previous operations for peptic ulcer—in 12 instances suture of perforation. Twenty of the 120 patients were classified as chronic alcoholics, while in 13 frank malnutrition and avitaminosis were present. The weight loss, as averaged from the data obtainable with reasonable accuracy in 84 patients, was 14 pounds. Two patients were so depleted that ascitic fluid was present in the peritoneal cavity at the time of gastric resection; in both, convalescence was uneventful.

Shown in Table 2 is information to indicate associated diseases found in the series of 120 patients. The degenerative diseases, malnutrition, chronic alcoholism, and pulmonary tuberculosis were common. Since the patients were in the older age group, the high incidence of hypertensive cardiovascular disease was not surprising. Five patients had suffered one or more bouts of cardiac decompensation, and two showed signs of decompensation on admission to hospital. Four were taking digitalis when admitted; four were suffering from angina pectoris, and one had had coronary occlusion. Nine patients showed electrocardiographic changes denoting diffuse myocardial damage, and in seven cardiac enlargement on radiographic examination was pronounced. Four patients had systolic blood pressure above 200 at operation.

TABLE 2.—Associated Disease in 120 Patients Having Gastric Resection for Peptic Ulcer

Disease	Number	
Heart disease		24
Hypertensive	13	
Arteriosclerotic	7	
Rheumatic	3	
Luetic	1	
Pulmonary disease		19
Active tuberculosis	7	
Emphysema, severe	5	
Bronchiectasis	3	
Kyphoscoliosis, severe	4	
Malnutrition and avitaminosis		13
Chronic alcoholism		20
Diabetes mellitus		2
Syphilis of central nervous system		2
Osteoarthritis, severe		2
Miscellaneous		36

TABLE 3.—Age Distribution of 120 Patients Having Gastric Resection for Peptic Ulcer

	Age Distribution (Years)							
	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	70 to 80	80 to 90
Acute massive hemorrhage cases (34)	0	3	6	5	4	13	3	0
Not acutely bleeding (86)	1	3	11	22	27	17	3	2
Total	1	6	17	27	31	30	6	2

Of the 19 patients with pulmonary disease, the seven with active pulmonary tuberculosis were of particular interest. Despite the presence of cavitation, which was bilateral in one case, operation and anesthesia were well borne. In the group of patients with malnutrition and avitaminosis, as in those with chronic alcoholism, the peptic ulcers were found to be especially large, and the involvement of neighboring organs was often severe. In two of these patients ascites was present at the time of gastric resection. The miscellaneous associated diseases included a wide variety of lesions, such as carcinoma of the larynx, psychoneurosis (three patients), neurofibromatosis, epilepsy, and cholecystitis with cholelithiasis. No patient in the series had cirrhosis of the liver.

That the series of patients represented a wide distribution of age is shown in Table 3. However the preponderance was in the older age group, and the average age for the entire group was fifty-one and one-half years. The oldest patient, a man of eighty-five years, gave a history of peptic ulcer going back for over twenty years. The youngest patient, eighteen years of age, had had four episodes of massive hemorrhage from duodenal ulcer since the age of sixteen. The fifth, sixth, and seventh decades showed the highest number of cases. The series is too small to warrant statistical conclusions, but it is notable that in the 34 patients acutely exsanguinated from hemorrhagic ulcer the average age was somewhat higher and a disproportionate number of patients were in the seventh decade of life.

With regard to laboratory data, interest centers chiefly in the group of patients admitted for acute massive hemorrhage. This group of 34 patients

GASTRIC MALIGNANCY

JOHN J. MORTON, M.D., Rochester, New York

(From the Department of Surgery, University of Rochester School of Medicine and Dentistry)

WHAT the medical profession needs is a simple test to determine abnormal gastric physiology. If such a test were available, we could assemble groups of those patients with an increased tendency toward the development of gastric malignancy. We would weight these groups as heavily as possible in our favor, selecting those patients who had conditions which in the past had preceded the development of malignancy. We would start with the age factor; then the sex factor; the presence of atrophic gastritis, gastric ulceration, or pernicious anemia; the absence of free acid or a diminished gastric acidity; and those showing occult blood in the stools. Since 93 per cent of gastric malignancies occur after forty years of age we would begin at this age level.[1] We would choose twice as many men, since in gastric cancer incidence males outnumber females by 61.6 per cent to 38.4 per cent.[2] All gastric ulcerations would be carefully observed, since 10 per cent turn out to be ulcerating cancers.[3] Although pernicious anemia patients constitute only 5 per cent of the carcinomas of the stomach, it would, nevertheless, be important to follow this group carefully.[4] The hypoacidity or anacidity groups are in more jeopardy than people with normal acid values. Those with low or absent hydrochloric acid constitute about 30 per cent of the people over fifty years of age.[5] Comfort and coworkers have demonstrated that there was achlorhydria or hypochlorhydria in over half of a series of patients who subsequently developed gastric cancer.[6] Stout noted that, from the third decade on, mucosal atrophy was encountered with increasing frequency.[7] All these factors add up to an increased liability for the development of malignancy. If the medical profession could get these individuals together and follow them periodically, earlier recognition of gastric malignancy might be possible.

Atrophic gastritis can be diagnosed in life only by gastroscopic examination. For practical purposes this does not make a convenient screening mechanism. Pernicious anemia can be diagnosed by a good blood examination. All such patients should be known in any general hospital record room. Gastric ulceration can be demonstrated by x-ray studies. This is not generally available for large group studies. When normal people over fifty years have had mass survey by this method, only one in a thousand showed positive evidence of malignant change. This is a time-consuming, expensive method with little return for the effort expended. Absence of hydrochloric acid or diminished amounts of it require passage of a tube and chemical study. For these reasons it is not a good mass study tool. We have endeavored to simplify the mechanisms for determination of the acid content of the stomach because we think it is the best lead that we have at present for detecting potential gastric cancer victims. If determination of the gastric acidity were made on all patients over forty years of age in our general hospitals, we would soon build up a group of people with low or absent gastric acidities. This would require some extra effort, but it might be much more valuable than some of the other routine laboratory tests.

The symptoms and signs of early gastric malignancy are minimal. By the time the symptoms develop the lesion is advanced. We cannot expect to make a diagnosis in time for curative therapy under such circumstances. The more pronounced symptoms are epigastric pain, vomiting, loss of weight, loss of appetite, and weakness. These mean well-established disease. The more minor complaints deserve our careful scrutiny. Fullness, gas, and discomfort after eating may have important significance. Loss of energy and a distaste for food should arouse suspicion. Alvarez emphasizes that something is radically wrong whenever a man or woman, after a lifetime of good health, begins to suffer with epigastric pain or discomfort, or a feeling that food is remaining too long in the stomach.[8] "Indigestion does not begin after the age of forty years," according to Ogilvie, and it should be followed till proved innocent.[9] This means turning our entire battery of diagnostic tests into action. X-ray study should consist in more than simple fluoroscopy, as even the most experienced radiologist may overlook the small lesion. This is the important lesion to detect. Consequently, "prolonged, painstaking fluoroscopy, 'spot' films, and roentgenograms in several positions" are requisites, according to Rigler.[4] Gastroscopy should be used as well whenever possible. Tests for gastric acidity should be done, probably on the old-fashioned test meal basis rather than after whipping up the acid glands by histamine.

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rhagic shock gasping for breath. He had been vomiting blood and passing tarry stools for twenty-four hours. The response to transfusion therapy was poor. He died seven hours after gastric resection without regaining consciousness. In the gastric specimen there were multiple prepyloric ulcers containing open vessels.

Case 5.—A. L., a sixty-year-old woman with a ten-year history of peptic ulcer, was admitted, bled-out and showing air hunger. She had been passing blood by rectum and vomiting blood over a three-week period. At operation a posterior wall duodenal ulcer with pancreatic crater was found. The ulcer-bearing area of the duodenum was excised, and gastric resection was performed. She died three days after operation with signs of bronchopneumonia and peritonitis. No autopsy was performed.

Summary

A study has been made of the risks of gastric resection in a group of 120 consecutive complicated cases of peptic ulcer; the evidence for classifying the patients as poor-risk cases is analyzed, and the morbidity and mortality findings are presented. It seems profitable to conclude that adequate ulcer-correcting gastric resection can now be performed with low risk even in patients presenting locally and generally unfavorable conditions.

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Discussion

Herman Pearse, M.D., *Rochester.*—Dr. Stewart is to be congratulated in attaining so low a mortality as 4 per cent in such a poor-risk group of patients subjected to a major surgical procedure. This extension of operability, in spite of the degenerative diseases of old age and complications from the primary disorder, is prevalent in all of surgery today. The resident surgeon now calmly proceeds under circumstances that would have made the senior attending physician shudder twenty years ago. I doubt if this is due to better surgical skill. Rather, it comes from improvement in the ancillary measures used before, during, and after the operation. These are largely responsible for our smaller mortality and greater scope of activity.

The appreciation of the need to correct anemia, hypoproteinemia, dehydration, demineralization, and avitaminosis; the strengthening of cardiovascular and renal function; the improvement in anesthesia; the avoidance of shock by blood replacement, and the prevention of postoperative complications by antibiotics, rebreathing, hydration, gastric suction, and early ambulation are the measures that have extended the scope of surgery.

Hence, this report of Dr. Stewart's is very timely, for it demonstrates the degree of safety with which major operations may now be done by skilled surgeons on poor-risk patients.

ANTIBIOTIC DRUG PROVES VALUABLE FOR SKIN DISEASE

Successful use of an antibiotic drug, bacitracin, for impetigo and other skin diseases is reported in the September 17 *Journal of the American Medical Association.* Bacitracin is thought to be especially valuable because it apparently causes few allergic reactions, say Drs. Jack L. Derzavis of Georgetown University School of Medicine, Washington, D.C., and J. Sidney Rice and Louis S. Leland of the U.S. Army Medical Corps, Washington, D.C. In contrast, use of sulfa drugs and penicillin for skin diseases has the drawback that some patients become hypersensitive to these substances which they may need later for severe infections, such as pneumonia.

To determine human sensitivity to bacitracin, the doctors made patch tests of 150 adults by applying a small amount of the drug to the skin for 48 hours. All of the tests were negative for reaction to bacitracin. A fortnight later, 50 of these same persons were retested by the patch method on the same site for another 48 hours. All test sites were again normal after the patches were removed.

"These results seemed indicative of low allergenicity and were subsequently corroborated by the occurrence of only one case of dermatitis of the contact type among the 138 patients subsequently treated with bacitracin ointment," the doctors point out. Only skin diseases which respond well to treatment with penicillin and the sulfa drugs were treated with bacitracin. Of the 138 patients, 128 were cured by the newer antibiotic drug, five were improved, and only five failed to improve.

Results against contagious impetigo are especially noteworthy. Many of these eruptions were cured in 48 hours after treatment with bacitracin was begun.

TABLE 1.—MORTALITY FOLLOWING SURGERY IN SOME SERIES

	Operability (Per Cent)	Resectability (Per Cent)	Mortality (Per Cent)	5-Year Survival (Per Cent)
Welch and Allen, Massachusetts General Hospital, 1941–1946	75.0	50.0	3.0	7.0
State, Moore, and Wangensteen, University of Minnesota, 1945–1947	88.0	80.0	3.8	6.6
Maimon and Palmer, University of Chicago, 1946[20]	83.5	52.1	16.3	7.4
Mayo Clinic, 1948	...	53.8	5.8	...

hitherto hopeless neoplasms. The technical advances in the suturing of the esophagus to stomach and the more adequate pre- and postoperative handling have cut the mortality rates as well.

It does not seem possible to improve the technical approach to resection to any great extent. The hope for better results must rest on getting the patient to surgery at an earlier stage. Hence, a mass screening test of a simple type is highly desirable.

Surgeons have increased their operability for gastric cancer. Resectability has also been extended including total gastrectomy when indicated. The mortality following surgery has been consistently whittled down till it is now below 10 per cent in many hospitals (Table 1). In some centers it is below 5 per cent. There are many more patients who live from three to five years after resection, and the five-year survival rate is over 7 per cent in some clinics. Palliative operations rarely prolong life, but the removal of the growth is worth a great deal in the comfort that it gives. If the nodes are involved, the prognosis is much poorer. Even in those cases where no node involvement is demonstrated, a number will be found to have direct extension through the lymphatics of the stomach. Sections should be taken from the upper end of the resected stomach to determine this point. In other instances there is invasion of the blood vessels, demonstrated in the studies of Warren and coworkers.[17]

The largest number of five-year survivals in the gastric sarcomas is in the lymphosarcoma group.[18] The prospect for cure in these patients is somewhat better than it is for those who have carcinomas. Both the resectability rate and the five-year survival rate are somewhat higher than for gastric carcinoma. The malignant lymphocytoma type (small round cell sarcoma) is more responsive to radiotherapy than the reticulum cell variety. The fact that four out of six patients with Hodgkin's disease of the stomach were living six to eight years after partial or complete gastric resection indicates that this disease may not always be multicentric in origin.[19]

We must continue to treat gastric malignancies with the best tools that we have until something better is discovered. Radical surgery seems to be our main reliance at the present. Consequently, it behooves us to get the patients to the surgeons when there is still a chance for cure. We look forward to better forms of treatment in the near future. Meanwhile let us screen the aging population as carefully as we can to pick out in time those who may become afflicted with gastric malignancies.

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Discussion

William A. Cooper, M.D., *New York City.*—Dr. Morton has covered the subject completely, and I would like to endorse everything he has said. The cure for gastric cancer is available, and each year some cases are salvaged by proper surgery. This salvage rate is low, primarily because our diagnostic methods are cumbersome, expensive, and imperfect.

For several years Dr. Papanicolaou and I have been working on the cytology of the gastric juice in an effort to diagnose gastric cancer pathologically. The normal gastric juice contains rather few cells, most of which are blood elements (red cells, lymphocytes, and polymorphonuclears) and desquamated squamous cells from the upper digestive tract. Occasionally cells are found from the respiratory epithelium. Rather few cells are seen from the gastric mucosa, so that finding such a group is rare.

In patients with gastric cancer abnormal cells may be recovered. They vary in size and shape, and the nuclei are bizarre or may be multiple. The finding of just one such abnormal cell may reasonably confirm the diagnosis.

In several hundred cases in which this method has been used, about 50 per cent of the gastric cancer cases failed to show such cells. These were missed

Search for exfoliated cells may be diagnostic if performed before the material is digested. It is essential that an experienced cytologist review the cells to differentiate them from the nasal, bronchial, and esophageal cells which may be present following tube passage. Papanicolaou and Cooper initiated this type of study which is being pursued widely at present.[10] The combination of radiography and the Schmidt camera may diminish the radiation dosage danger and give a simpler screening mechanism. This has been the experience at Johns Hopkins and at the Roswell Park Memorial Institute in Buffalo.

If such a program is followed, the chances of finding gastric cancer earlier are good for the middle-aged and older people. It ignores the cancers and other malignant gastric tumors which arise in children and young adults. Goldstein recorded from the world literature a large number of gastric carcinomas in these age groups.[11] It is surprising to find cases of gastric cancer as early as the tenth day of life.[12] King collected 40 cases from the literature for the first two decades of life.[13] Phillips found 90 cases of gastric carcinoma and six of gastric sarcoma in persons less than thirty years of age in the Mayo Clinic records to the time of his review.[14] Altogether, this seems like a considerable number, but it amounts to slightly over 1 per cent of gastric cancers.

The same may be said for malignant tumors of the stomach, other than cancers. These sarcomas constitute between 2 and 3 per cent of gastric malignancies. Differential diagnosis from carcinoma of the stomach is almost impossible. For practical purposes any tumor of the stomach should be regarded as cancer until proved otherwise. This means diagnosis by microscopic examination. The sarcomas tend to occur in an earlier age group; their duration appears to be longer; the late symptoms are less severe except for the hemorrhages which may be profuse, especially with the leiomyosarcoma type. Since about 64 per cent of the sarcomas are lymphosarcomas, the spleen may be enlarged in about 10 per cent of the cases. Pathologic examination will show that fibrosarcomas stand next in frequency and that leiomyosarcomas and angiosarcomas constitute most of the remaining lesions. Hodgkin's disease and leukemias, as well as some rarer forms, may also involve the stomach.

The benign tumors, especially the leiomyomas, are regarded as definite threatening lesions by some surgeons who urge their thorough removal for good prophylaxis.[15] The gastric polyps should be placed in the same category. From the medical standpoint, Berry and Cole found that prompt relief from gastric mucosal atrophy could be obtained by proper nutritional substances added to their treatment.[16] Liver extract, vitamin B complex, and nicotinic acid were employed with relief of symptoms and resumption of a normal appearance of the gastric mucosa on gastroscopy.

The question regarding the proper management of the gastric ulcer patient has been well stated by Alvarez and more recently by Allen.[8,3] Alvarez wrote, "After ten days of dieting, the crater should show marked shrinkage, and in twenty days it should be hard to find. If it does not show signs of healing, it may yet be benign, but it is dangerous to go on with medical treatment. If the lesion continues to grow in size, operation must be done immediately."[8] Allen advocates observation in the hospital and medical treatment if (1) the patient is young and the lesion acute, (2) if the lesion is under 1 cm. in diameter, and (3) if it is on the lesser curvature or on the anterior or posterior wall.[3] If the healing is complete under medical treatment, repeat the studies one month later. If the healing is not complete within one month, surgery should be done. Immediate surgery is indicated (1) if the ulcer is of short duration and the patient is over fifty years of age, (2) if the ulcer is over 2.5 cm. in diameter, (3) if there is no free hydrochloric acid, (4) if the ulcer is on the greater curvature or in the prepyloric region, and (5) if the ulcer is chronic, recurrent, and on the lesser curvature. If this advice is followed, the 10 per cent of ulcerating cancers of the stomach will be picked up in their early stages.

The treatment of gastric malignancy is surgical. If the lymphosarcomas could be diagnosed beforehand, a trial of radiotherapy might be used in those cases which showed a favorable response. This is rarely possible. The surgery must be radical in type in order to remove the regional nodes in the pyloric region, along the lesser curvature, and about the hilar region of the spleen in the fundic region. Total gastrectomy would be the ideal operation for complete "bloc dissection." The cure rate is not sufficiently greater than that of subtotal gastrectomy to warrant the risk of the higher mortality rate for total gastrectomy. If this discrepancy can be obviated, there is no doubt that total gastrectomy is the more thorough operation.

The operability has been extended to include removal of adjacent organs with the stomach when involved by the growth. Direct extension to the transverse colon, to the left lobe of the liver, or to the pancreas no longer constitutes an obstacle to surgery. No patient should be denied the right of exploration, because many times there is more to be accomplished than is thought possible. The transthoracic access to the cardiac growths has made it possible to remove these

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Surgery, May 6, 1949.

diagnoses. There were less than 1 per cent false positives. The method is still in its research phase, and we hope to discover better methods for obtaining cells that will make diagnosis possible. One of the encouraging features is that some of our best specimens have been recovered from some of the smallest tumors. If we can perfect the method and obtain such material from 80 to 90 per cent of cases with gastric cancer, a new and valuable screening method will become available.

Until that time when an adequate diagnostic procedure for early gastric cancer can be developed—and I believe that it will be—we must rely on vague clues and a variety of imperfect aids. The discovery of precursor groups such as pernicious anemia, achlorhydria, and, possibly, gastric ulcer is helpful in focusing attention on these groups for particular scrutiny, but the major responsibility for the discovery of early gastric cancer, for many years to come, will lie primarily with the clinician. The family doctor who first listens to the patient's complaints holds the key position in gastric cancer. It is he, rather than the specialist, that has the opportunity to apply the various diagnostic aids early in the course of the disease.

Sidney A. Gladstone, M.D., *New York City.*—For about one year we have been using suitable sponge to obtain from accessible sites small particles of tissue for microscopic examination in the diagnosis of cancer. Our efforts have been confined for the most part to lesions and sites which we could see and upon which we could rub a sponge under direct vision. Within the past month we have introduced sponges into the fasting stomach of patients, either as a series of sponges on braided silk or as a string of sponges wound spirally around the lower end of a Levine stomach tube. In a series of 12 cases there were two with proved cancer of the stomach. In each of these, particles of cancer tissue were found on microscopic examination of the sponges. In the third case a patient fifty years of age with a two-year "ulcer" history, complaining mostly of loss of appetite and slight weight loss, was examined by us by means of stomach sponge biopsy. The microscopic examination of the sponges indicated the presence of carcinoma which was confirmed by operation performed as soon as the diagnosis was made.

This type of study is at its beginning, and many cases must be studied before the technic can be crystallized and the results evaluated. It may be said at this time, however, that the method of stomach sponge biopsy provides, for examination, small particles of more or less viable tissue rubbed off ulcerating surfaces. This material, in contrast to the partly digested cells of the gastric contents, is morphologically well preserved and permits of easy microscopic recognition.

PRIZE ESSAYS

The Merrit H. Cash Prize and the Lucien Howe Prize will be open for competition at the next Annual Meeting of the Medical Society of the State of New York, May 8, 1950, in New York City.

The Lucien Howe Prize of $100 will be presented for the best original contribution on some branch of surgery, preferably ophthalmology. The author need not be a member of the Medical Society of the State of New York.

The Merrit H. Cash Prize of $100 will be given to the author of the best original essay on some medical or surgical subject. Competition is limited to the members of the Medical Society of the State of New York, who at the time of the competition are residents of New York State.

The following conditions must be observed:

Essays shall be typewritten or printed with the name of the prize for which the essay is submitted, and the only means of identification of the author shall be a motto or other device. The essay shall be accompanied by a sealed envelope having on the outside the same motto or device, and containing the name and address of the writer.

If the Committee considers that no essay or contribution is worthy of a prize, it will not be awarded.

Any essay that may win a prize automatically becomes the property of the Medical Society of the State of New York "to be published as it may direct."

All essays must be presented not later than February 1, 1950, and sent to the Chairman of the Committee on Prize Essays of the Medical Society of the State of New York, 292 Madison Avenue, New York 17, New York.

ARMITAGE WHITMAN, M.D., *Chairman*
Committee on Prize Essays

...LECTION OF OPERATION FOR CARCINOMA OF THE LOWER ...RTION OF THE COLON AND RECTUM

...RLES W. MAYO, M.D., Rochester, Minnesota

...m the Division of Surgery, Mayo Clinic)

...OR purposes of clarity and understanding, a discussion of this nature must be kept within ...ecific bounds. Consequently, I shall confine ...yself here to malignant lesions that are situated ...thin 20 cm. of the dentate margin of the anus. ...or convenience of presentation and because, in ...y opinion, the distance from the anus that a ...sectable lesion is situated is one of the most ...portant factors which influence the type of ...rgical procedures to be selected, I have divided ...his 20 cm. of bowel into four parts of 5 cm. each. ...This statement is made advisedly, because there ...still are those who sincerely believe that a prop...erly performed combined abdominoperineal resection is the operation of choice for all carcinomas which are situated within this limit of distance; that is, for lesions that have passed beyond the stage at which they can be dealt with safely by fulguration.

The objective of the surgeon is to get beyond the reaches not only of the primary growth but also of its metastatic spread. If the operative procedure selected fails to accomplish this, the result is only palliative. The theory that prompts those who advocate the most radical of resections in all instances has the semblance of practicality in that, they argue, it is impossible to predetermine whether there is lymphatic involvement and, if so, whether the spread will be upward, lateral, or retrograde.

Opinions gradually have been influenced by special studies relative to lymphatic spread. These studies, although confirming the great importance of upward spread, also have led to proper evaluation of lateral and retrograde lymphatic involvement. Although many investigators have contributed to the development of these particular aspects of the field, great credit must go to Gilchrist and David, Coller, Kay and MacIntyre, Glover and Waugh, Dafoe, and Kirklin, Dockerty, and Waugh, for their careful work on the subject.[1-6]

The Time Factor

Time, however, remains the greatest single factor that influences the final result in the individual case of malignancy: the time between initiation and discovery of the malignant process, regardless of cause, and the time between discovery and adequate removal of the lesion. At some time, regardless of the patient's age and heredity and the location, grade, or type of malignant lesion, the lesion is curable; it is confined to the areas under discussion in this paper and if it can be discovered and removed while it is still confined locally.

The first point to which I would draw your attention, therefore, is that any time that is allowed to elapse between the finding of a malignant lesion and initiation of preparation of the bowel for adequate surgical treatment may be time tragically wasted. In the interest of the patient, let us hear no talk such as, "I have a patient with cancer of such and such waiting for me to do when I get home," or "I let the patient go home to settle up his affairs; he will be back in two weeks." This interval in treatment can well be the difference between palliation and cure.

Other Important Factors

In addition to time, many other important factors enter into the picture to hasten penetration and spread. The grade of malignancy, according to Broders' classification, is perhaps the next most important consideration.[7] There is now an abundance of proof that the degree of glandular involvement increases in direct proportion to the grade of malignancy. We know, too, that patients in the younger age groups have a poorer prognosis, as a whole, than do members of the older age groups, regardless of the grade of the lesion. Another point is that the greater the obstruction, the poorer the prognosis. When there is complete obstruction, the five-year survival rate is twice as poor as it is when obstruction is not present.[8] When venous involvement has been found by pathologic study of the removed specimen, 95 per cent of the patients concerned will succumb within five years, as demonstrated by our follow-up studies.

Actually, it is the summation of all factors determined preoperatively and at the time of operation, by both the surgeon and the surgical pathologist that influences the surgeon's judgment as to what technic he shall employ and the

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extent of resection indicated in the individual case.

Site of Lesion and Choice of Operation

The situation of a cancer, if it is not outweighed by one or more of the aforementioned factors, is of greatest importance in determining the type of surgical procedure to be performed, and it is the one consideration I shall stress on the basis of evidence that has been developed and is developing regarding lymphatic spread. Perhaps I best can express my own attitude toward cancer of the rectum and lower portion of the sigmoid by stating that before operation I have all patients with such surgical conditions prepared, mentally and physically, for the establishment of a permanent colonic stoma and one-stage combined abdominoperineal resection. I am sure that if abdominal exploration justifies it, I will, in fact, perform one-stage combined abdominoperineal resection in some cases, namely, those in which a resectable lesion involves, in whole or in part, the first 5 cm. of the rectum above the dentate margin. For lesions situated above this segment of rectum, although I have anticipated that I may perform one-stage combined abdominoperineal resection, I hope I may find, on abdominal exploration and after mobilization of the lesion, that resection and re-establishment of the continuity of the bowel can be performed safely.

Preservation of the Anus

It is only natural that one of the great concerns of a patient should be that the normal anal outlet and its control be preserved. It is the surgeon's responsibility to see to it that the anus is not sacrificed unnecessarily. A comfortable and productive life is compatible with a permanent and well-made abdominal colonic stoma, but it is difficult to convince oneself or one's patient that an unnecessary colonic stoma is justified.

Rectum Above the Dentate Margin

First Five Centimeters above the Dentate Margin.—For carcinomas that involve the first 5 cm. of the rectum, in whole or in part, an extensive resection should be performed in the light of present knowledge regarding upward, lateral, and retrograde glandular involvement.

Barbosa, Waugh, and Dockerty, in a study of 105 cases of low-lying rectal and anal adenocarcinomas, concluded that the prognosis for these lesions is poorer than for those situated higher.[9] Gilchrist and David, in a report of their cases, also have indicated that a poorer prognostic result obtains in low-lying rectal lesions.[1,2] It has been demonstrated that such carcinomas spread not only upward but also laterally along the lymphatic vessels. Lateral spread usually does not occur in the levator muscle bundles themselves, but in the lymphatic vessels of the fascial planes of the levators. Retrograde spread is a late sequela and is the result of lymphatic blockage above and to the sides. It has been this concept, plus the feeling that combined abdominoperineal resection is, as a rule, not sufficiently radical for the low-lying rectal carcinomas, that have motivated Dixon for years to apply the technic of colostomy for such lesions and, later, radical posterior resection, with the patient in the Kraske position, or the two-stage combined resection with removal of the superior hemorrhoidal vessel, a single-barrel colostomy, inversion of the rectal stump, and, later, posterior resection.[10]

The weight of evidence for dealing with malignant lesions in the first 5 cm. of the rectum that require surgical treatment, whether resection is undertaken with the expectation of cure or for palliation only, shows that a permanent colonic stoma should be created and wide resection of the rectum should be carried out. The method I prefer is one-stage combined abdominoperineal resection. The reasons for this preference are that the operation can be as radical as any other type of procedure, the operative mortality rate is as low as that of other methods, or lower (a review of 1,097 cases in which operation has been performed at the Mayo Clinic from 1940 through 1948 revealed an over-all hospital mortality rate of 3.6 per cent), and finally, the operation is performed in one stage, so that the time the malignant lesion remains in the body is shortened and the morbidity and expense to the patient are minimized.

The so-called pull-through operation, with preservation of the sphincter muscle, should not be attempted for malignant lesions at this level, no should an attempt be made to perform low anterior resection and anastomosis. According to our pathologic findings, approximately half of the malignant lesions of the rectum, regardless of location, have metastasized to lymph nodes at the time of resection. For half of the patients, therefore, knowing the pathways of such spread, I consider it imperative that radical excision be performed for the low rectal lesions under discussion. Dukes is correct, of course, in stating that the life expectancy for patients from whom unmetastasized carcinoma of the rectum has been removed is good, no matter in what location it may have been.[11]

Six to Eleven Centimeters above the Dentate Margin.—I would call to your attention again the fact that the divisions of the bowel that have been made for this discussion are arbitrary. I would remind you, too, that measurements of distance for lesions in the rectum, even though designated

by the proctoscope, are not without a degree of error. Yet some standard must be accepted, and it would seem that, on the whole, the judgment of the physician at the time of proctoscopic examination best fits the needs.

The level of peritoneal reflection from the anterior surface of the sigmoid, to the vagina in the female and to the bladder in the male, varies in each case; it is estimated to range from 5 to 10 cm. or more. All the rectum and the lower posterior portion of the sigmoid are devoid of peritoneum.

The segment of rectum from 6 to 11 cm. from the dentate margin is that about which there is greatest disagreement and contention from the standpoint of operation of choice. It is for lesions within this area, essentially, that surgeons begin to form their individual preferences of technical procedures, each with his own major or minor variations. In general, the methods divide themselves into the following categories: (1) one-stage combined abdominoperineal resection (Miles); (2) one-stage combined abdominoperineal resection, with preservation of the sphincters or so-called pull-through operation (Babcock-Bacon); and (3) low anterior segmental resection with primary anastomosis, with or without concomitant colostomy.

This is the most important area for our consideration because, as stated before, there are those who unequivocally believe that, in fairness to the patient, one-stage combined abdominoperineal resection and permanent colostomy constitute the only operation to be considered for malignant lesions in any portion of the rectum. Prior to World War II, I too was of this opinion, but since then I have been influenced by the careful studies that have been made of lymphatic spread, and I have increasingly adopted low anterior segmental resection for lesions of the upper portion of the rectum, concerning which more later.

However, it is my opinion that for lesions situated in whole or in part within the limit of 6 or 7 cm. from the anal margin, the percentage of cases in which a Miles type of one-stage combined abdominoperineal resection should be performed increases. In other words, it is not that I do not consider the Miles type of combined and abdominoperineal resection a valuable operation, and it is not that the percentage of so-called cures will not be high, all factors considered. It is simply a question of whether or not there is available a procedure as radical as necessary to obtain the same end results in selected cases as those obtained from the abdominoperineal resection and, in addition, a procedure which is accompanied by an equivalent hospital mortality rate and lowered morbidity rate and still leaves the patient with a normally controlled and functioning anus.

I have found that those who are so adamant in their stand against the low anterior segmental resection, even for selected lesions in this region, are of the same mind also in regard to the one-stage combined abdominoperineal resection with preservation of the anal sphincters. I also have observed that those who most criticize that type of operation have seen it done the least often. To have seen recurrences follow the modified Hochenegg operation is no justification for the contention that the operation has no place in rectal surgery for cancer. There is no colon surgeon, no matter how excellent his judgment is or how skilled he is technically, who has not seen more recurrences than he expected in his own well-treated surgical patients.

For lesions in this particular area of the rectum, I think the so-called pull-through operation, well performed, does have a place. From my experience with it, I am equally of the opinion that it is not an operation for me to perform. Waugh at the Mayo Clinic, Babcock and Bacon in Philadelphia, and other accomplished individual surgeons with extensive series of operations performed by their own methods are in a better position than I am to judge the merits and shortcomings of this particular procedure. They perhaps would employ it in cases in which I most often would select low anterior segmental resection or, more rarely, the Miles combined abdominoperineal resection.

In the presence of lesions of the upper part of the rectum we are confronted with four schools of thought:

1. Combined abdominoperineal resection;
2. That which advocates resection with end-to-end anastomosis and concomitant transverse colostomy;
3. That which advocates resection and anastomosis, without performance of colostomy; and
4. That which advocates resection, sometimes with and sometimes without performance of colostomy.

Essentially, all remarks or writings in medicine and surgery reflect principally the thoughts and opinions of the author. Here, then, I shall present my own ideas about anterior segmental resection.

I have become more and more impressed with the advantages of anterior segmental resection for the majority of cancers of the upper portion of the rectum, as I have seen them and have studied the results obtained by those who have performed this operation more times than I have. In a study which I reported of two series of 100 consecutive cases each, one not involving the concomitant performance of colostomy and the

other including this procedure, the over-all hospital mortality rate was 4.5 per cent, counting all deaths from all causes. Dixon has studied his cases of performance of anterior segmental resection from the standpoint of prognosis, and the results are comparable to those obtained from combined abdominoperineal resection, as far as three-year and five-year survival rates are concerned.[10]

It has been stated previously that all patients scheduled for operation for cancer of the rectum and lower portion of the sigmoid are prepared preoperatively for combined abdominoperineal resection and are advised that this procedure may be needed. The decision as to the adoption of that procedure or of low anterior resection is not made until the lesion has been mobilized and the abdominal part of the operation has been performed, just as for combined abdominoperineal resection. If, at this point, conditions are found to be such that the rectum and its posterior and lateral tissues can be transected at a point at least 2 cm. below the lower border of the lesion and the remaining portion of the sigmoid can be mobilized to assure an accurate anastomosis without tension, then I select end-to-end sigmoidorectostomy as the operation of choice. As we now see them, in not more than 1 per cent of cases does retrograde spread extend more than 2 cm. below a lesion at this level. It is important to open the resected portion of bowel on removal to determine the distance from the lesion to the lower line of transection. If there is any question from any standpoint when the pathologic report is received, the rectum can be closed and the surgeon can proceed with the operation as a combined abdominoperineal resection.

If the colon has been well prepared from the viewpoint of cleanliness by irrigations and by the efficient use of available chemotherapeutic agents, clamps are not necessary in accomplishing the anastomosis. I use interrupted cotton sutures in the outer coats of the bowel and running catgut sutures in the mucosa. At the conclusion of the operation, after retroperitoneal drainage has been established and the drains have been brought out through the lower angle of the low left rectus incision, the anastomosis is extraperitonealized, and when the abdomen has been closed, the anus is dilated thoroughly. A tube is not inserted in the rectum past the site of the anastomosis and left in place, colostomy is not performed, and the use of the Miller-Abbott tube is a rarity.

More than three fourths of the patients treated by this method are able to leave the hospital within two weeks and to return home within three weeks after the date of the operation. This is a most decided material saving to the patient, both from the standpoint of the financial aspect and that of preservation of the anus.

Eleven to Sixteen Centimeters above the Dentate Margin.—At this distance, a lesion is still within the range at which many surgeons believe that the Miles type of operation is almost invariably indicated. Rankin recently has stated that one-stage combined abdominoperineal resection (Miles) is the operation of choice for all malignant lesions situated below a line 2 inches above the peritoneal reflection.[12] For lesions lying in this area or extending into it from above, I now, with few exceptions, perform low anterior resection with sigmoidorectostomy, just as described in the immediately preceding section of this paper.

For adequate surgical treatment there would seem to be little to be gained by performance of a pull-through operation for carcinoma at this level, considering the ease with which the surgeon can reach at least 2 cm. or more below the lower margin of such lesions.

Sixteen to Twenty-one Centimeters above the Dentate Margin.—Lesions situated at this level do not provoke grave controversy as to treatment; rather, there is a great concord of surgical opinion in this respect. With advancing progress in the methods of preparing the colon for operation and the application of the efficient antibiotic agents now available, extraperitoneal or modified Mikulicz operations are being applied less and less. Most surgeons now employ resection and primary anastomosis. There are, however, surgical points at this level, just as below, which must be kept in mind. These points include wide resection of the mesentery with removal of tissue well above and below the lesion, excision of the superior hemorrhoidal vessels after high ligation, and creation of an accurate anastomosis without tension. One more point which I stress is thorough dilatation of the anus.

Even those surgeons who formerly advocated and performed one-stage combined abdominoperineal resection for lesions at this level have abandoned it in favor of one-stage resection and primary anastomosis, although all surgeons have not accepted this without the concomitant performance of transverse colostomy.

Comment

It is encouraging to note that surgery of the colon and rectum is not a static field. Definite advances have been made in all its branches, to the benefit of the patient. To the chemotherapeutic agents now employed, to a better understanding of lymphatic pathways from the various levels, to improved anesthesia, and to technical developments to aid the surgeon goes great credit in lowering mortality and morbidity rates and lessening the unnecessary sacrifice of tissue. The

anus must be sacrificed when it should be, but it is a precious physiologic asset and certainly should be preserved when this can be done without unduly risking the "long-pull cure" hoped for by the patient and the surgeon.

Early diagnosis of lesions of the colon still is the great field for medical progress, for it is in the treatment of premalignant or early localized malignant processes that we can serve the patient best. In this connection, it is of value to point out that in a series of more than 1,000 proctoscopic and sigmoidoscopic examinations performed at the Mayo Clinic on patients who had had no signs or symptoms to indicate the need for such an examination, polyps that required fulguration were found in almost 10 per cent of the cases. I am convinced that this examination is a "must" for anyone undergoing a complete physical examination. If polyps are found and are properly treated, much grief will be saved many people later in life.

Cancer of the rectum or colon, diagnosed early and properly treated surgically at an early time, is curable. As Professor Charles A. Pannett, of England stated, "I have come to feel that scientific advance can be made only if we regard our contemporary beliefs as always wrong, or at most only half truths."[13] Certainly we must agree that an open and thoughtful mind is essential to medical progress.

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Discussion

John Burke, M.D., *Buffalo.*—We will all agree that an ideal operation for carcinoma at any level of the gastrointestinal tract will be able to restore continuity and at the same time give assurance of complete cure. Most procedures, unfortunately, must compromise one or the other of these objectives. It is obvious that the cure factor is by far the most important. At the same time, we continue to strive toward restoration of the normal physiologic pattern. Whether or not we belong to the school which feels that combined abdominal-perineal resection with permanent colostomy is the only answer to lesions in the rectum and sigmoid, or whether we believe that in many cases an operation permitting conservation of the function of the anus is possible, we must agree with Dr. Mayo when he states "an open and thoughtful mind is essential to medical progress." We are too often prejudiced either by a few unfortunate experiences of our own or a few equally fortunate survivals. To that might be added another prejudice, to quote Dr. Mayo: "I also have observed that those who most criticize that type of operation have seen it done the least often."

I think that we will agree that for the first or lowest segment described by Dr. Mayo, abdominal-perineal resection with permanent colostomy is the operation of choice. I am inclined to believe that this operation is also the operation of choice for almost all of the lesions which fall in the next category, that from 6 to 11 cm. above the dentate margin. A good case is made out by the proponents of the pull-through operation and also the proponents of the low anterior resection. I have had no personal experience with the pull-through operation. So far as the anterior resection in this area is concerned, I do not feel that I can get sufficient segment on either side of the tumor to insure a reasonably radical procedure. Perhaps this is due to the unfortunate experience of seeing local recurrence on several occasions where it was thought that at the time of operation there was adequate bowel on either side of the tumor, and, so far as microscopic evidence could demonstrate, this was so. Unfortunately, even histologic examination of the cut end does not always guard against the existence of submural metastatic areas or invasive areas. For this reason, I am inclined to resect as much tissue as is in any way practical. For the third group I would still tend toward the combined abdominal-perineal resection unless the growth was easily mobilized together with a rather large cuff of apparently normal tissue on either side. This may place the line of anastomosis uncomfortably low in the pelvis. I have no quarrel with those who can perform a satisfactory anastomosis at this level, but I find it rather awkward. So far as the fourth group is concerned, I am inclined to agree with Dr. Mayo that many of these can be treated by segmental resection. Certainly the five-year survivals in the group so treated compare very favorably with those found after abdominal-perineal resection, and there is no question about the comfort of the patient or of the economic load of his hospitalization.

Dr. Mayo's statement that his patients are prepared physically and mentally for a combined abdominal-perineal resection is very important. This makes it possible for the surgeon to exercise a reasonable choice after the abdomen has been opened and the dissection begun and at the same time spares the patient the sudden realization that he has a permanent colostomy. In the final analysis, the general condition of the patient, the peculiarities of his own lesion, and the technical ability and open-mindedness of the operating surgeon will determine the proper operation for that patient.

RENAL LIPOMATOSIS

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RENAL lipomatosis, until recently regarded as a rare condition, is a relatively little known pathologic entity in which varying amounts of destroyed renal parenchyma become replaced by fat. Renal lipomatosis (fatty replacement of the kidney), lipomatous paranephritis (fatty transformation of the kidney), and lipomatous nephritis are a few of the other terms used to describe essentially the same condition. In the early literature renal lipomatosis was not clearly differentiated from true renal lipoma. The latter condition is one in which a circumscribed fat tumor occurs within a normal kidney parenchyma, usually at the periphery attached to the capsule, and is quite rare, the autopsy incidence being reported as one in 40,000.[1,2]

A number of investigators agree that renal lipomatosis can no longer be considered a rare process. This is very pointedly borne out by the easy discovery in 1938 by Roth and Davidson of 37 examples of this condition in an average museum of pathology designed for teaching purposes.[3]

Fatty replacement of the kidney was first reported by Baader in 1778.[4] Fifty-nine years later (1837), Rayer recorded the first detailed description of this process.[5]

It is generally agreed that renal lipomatosis is a condition which does not present a clinical picture all its own. In fact, it never has been diagnosed as such preoperatively or prior to necropsy. The symptoms which cause a patient having this abnormal process to seek treatment are usually those of pyonephrosis or pyelonephritis. These most commonly are pain over the kidney region and pyuria with dysuria. If the course has been of long standing, the kidney may have ceased to function with resulting minimal or absent symptomatology. The literature contains a number of examples of autopsy discovery of renal lipomatosis in persons meeting sudden death who had been perfectly well at the time of their passing.

Since renal lipomatosis is ordinarily a unilateral condition, blood chemistry and renal function tests are usually normal. Ureteral catheterization, however, often shows the involved kidney to be functionless. A very few cases of bilateral renal lipomatosis are on record.[6]

Fatty replacement of the kidney has been found most commonly in people of middle age. Extreme variations, however, have been reported, the youngest being a child of eleven and the oldest a man of seventy-seven.[7,2] Several authors have reported that, in their observations, renal lipomatosis was encountered only in obese patients.[8]

There are many theories which attempt to explain the etiology of renal lipomatosis. Borst feels that a proliferation of fatty tissue such as fills in the defect produced by muscular atrophy in certain types of dystrophy is active here too.[9] We are all cognizant of such other examples of replacement of an organ by fat, as the normal replacement of the thymus in children and the pathologic replacement in the myocardium of some middle-aged and elderly persons. Borst also points out the contention of Perls-Neelsen, Rokitansky, and others that the renal substance is destroyed by pressure atrophy as a result of fatty tissue proliferation. However, no evidence of compression of the renal parenchyma adjacent to the fatty tissue can be demonstrated to lend support to such a theory. If the process of the spreading fatty tissue were an invasive one passing across the boundary of the renal sinus, one would expect to find islets of renal tissue between the fat accumulations. Still other investigators have posed the theory that the adipose tissue arose by a process of metaplasia following proliferation of the kidney connective tissue. Most investigators, however, support the belief that fat from the renal sinus moves in to replace destroyed renal parenchyma.[2,10–14] Since the lining of the sinus is a prolongation of the kidney capsule, the fat therein is extrarenal and in direct continuity with the perirenal fat.

It is generally agreed that the destruction of the renal substance anteceding fat replacement is accomplished most frequently by longstanding infection. This is practically always nontuberculous, although tuberculosis has been reported as preceding or accompanying this condition.[8,15] Kutzmann tabulated 33 cases, and, of these, 79 per cent had renal calculi, and all showed evidence of infection.[14] It is probable that the infection is, in most cases, secondary to obstruction of the extrarenal urinary passages. Seven of Young's 11

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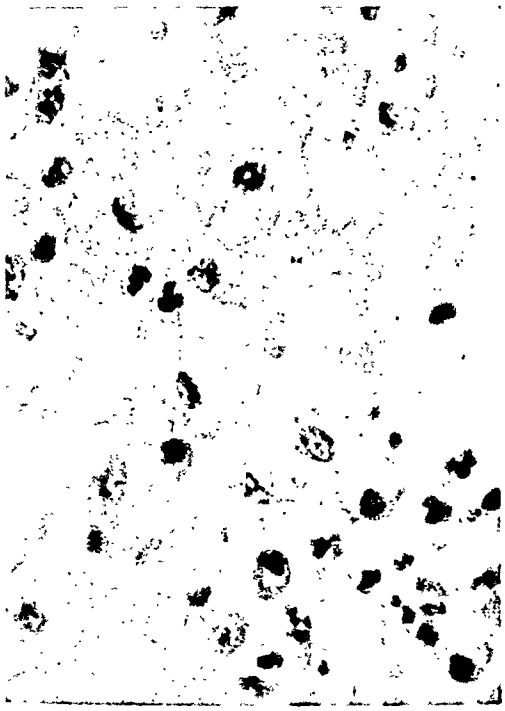


FIG. 1. Case 1: Purulent infiltration in right lower corner, lipoid macrophages, plasma cells, and monocytes in other parts. (400 ×)

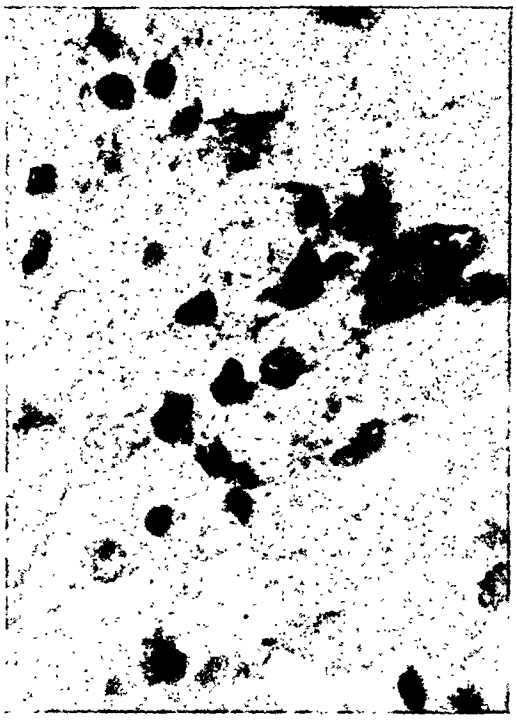


FIG. 2. Case 1: Large macrophages demonstrating the reticular and granular intracellular lipoid. (400 ×)

cases showed replacement of a hydronephrotic kidney by fat.[16] One might expect such a substitution in a slowly progressing hydronephrosis where the increase of bacteria is encouraged and where a pyelonephritis or pyelonephrosis is an intermediate development. On the other hand, in the case of an acute hydronephrosis which has developed in a comparatively short period of time, one would not expect to find fatty replacement of the renal substance because infection had not had sufficient time to wreak destruction in the renal parenchyma.

Hamm and de Veer cite cases substantiating their contention that lipomatous tissue can replace renal parenchyma lost in noninflammatory conditions such as senile atrophy and the arteriosclerotic contracted kidney.[8]

Eight new cases of renal lipomatosis, some of which suggest a new mechanism for the development of this condition, are reported in the ensuing paragraphs. Seven of these cases were encountered in a series of 40 consecutive nephrectomies performed in a twenty-four-month period immediately preceding April, 1948. Renal lipomatosis was found once in the course of 308 consecutive necropsy examinations in the same period of time.

Case Reports

Case 1.—Mrs. E. F., age fifty-two, was admitted to the Deaconess Hospital March 26, 1946, with a history of recurrent attacks of severe left costovertebral angle pain, accompanied by chills, fever, and emesis for the past year.

Physical examination showed marked tenderness and spasm in the left costovertebral angle and left anterior abdomen.

Urinalysis showed pH 5.2 and albumin 2 plus; a microscopic specimen was loaded with pus and red blood cells. Blood count was as follows: 22,000 white blood cells with a left shift in the differential. The nonprotein nitrogen was 36 mg. per 100 cc. The carbon dioxide combining power was 39.4 volumes per cent. Cystoscopy revealed a chronic cystitis with drainage of purulent material from the left ureteral orifice which cultured as nonhemolytic Staphylococcus aureus. Urine from the right kidney was clear and negative on culture. Preoperative diagnosis was left pyonephrosis.

A left nephrectomy was performed on April 2, 1946. In the course of the operation a large perinephritic abscess was encountered and drained. The incision was closed with drainage. She had an uncomplicated convalescence.

The pathologic report was as follows: The kidney and attached tissue involved in the pathologic process weighed 700 Gm. The capsule was firmly fused to the kidney substance. The renal parenchyma

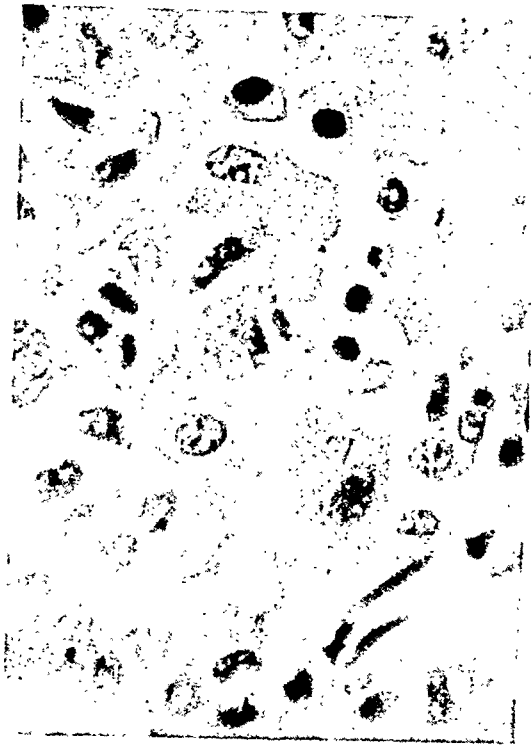


FIG. 3. Case 2: Granulomatous area, mainly plasma and round cells with various types of macrophages, some of them containing lipoid. (400 ×)

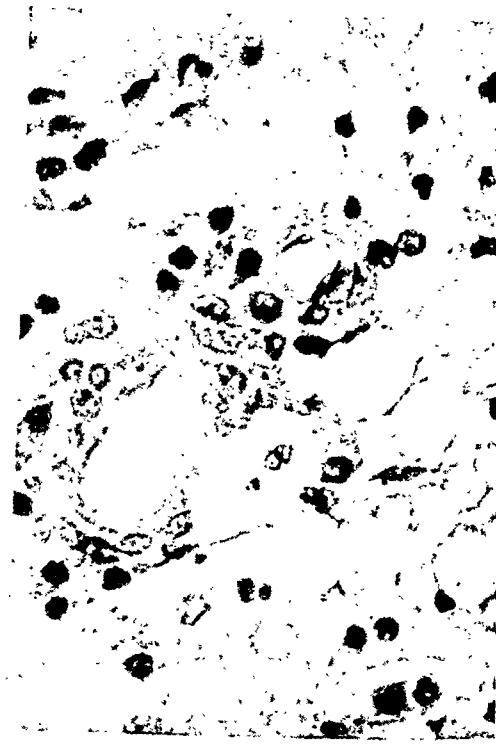


FIG. 4. Case 2: Mature fat cells scattered throughout lipoid granuloma deep in renal parenchyma. (400 ×)

showed a whitish, gelatinous, and fibrotic appearance on section in which no details of the normal gross kidney structure could be recognized. The calyces were greatly dilated and were surrounded by a rim of yellowish, necrotic-appearing tissue. They and the pelvis contained dark, grayish-red masses of shaggy matter floating in a thin purulent exudate. The fatty renal capsule appeared to be continuous with areas of fat in the kidney parenchyma, particularly in the hilar region. A perirenal abscess cavity was also noted.

In all the microscopic sections only small areas of recognizable kidney tissue were noted. Even in these areas the tubules had been obliterated by a proliferating fibrous tissue. Other areas consisted of a subacute granulation tissue in which round and polymorphonuclear cells predominated (Figs. 1, 2). Still other areas showed great masses of foam cells (lipoid macrophages) interspersed with round and polymorphonuclear cells. The separation between the granulation and necrotic tissue and the fat tissue was not sharp. Fat cells were noted singly, in small numbers, and also in large accumulations. In a few areas the foam cells and mature fat cells were mixed.

The final pathologic diagnosis was pyonephrosis with complete disintegration and fatty metamorphosis of the kidney tissue.

Case 2.—Mrs. A. S., a white woman, sixty-six years of age, entered the Deaconess Hospital on February 12, 1947, with complaints of dull, aching right-sided pain, loss of weight, and a gradually enlarging right abdominal mass.

Examination revealed her to be pale and poorly nourished, with a blood pressure of 160/90 and a palpable right-sided mass about 16 cm. in diameter.

Urinalysis showed albumin 3 plus and many pus cells on microscopic examination. Blood counts revealed marked anemia. Her white count and differential count were normal. The sedimentation rate was 17 mm. per hour. The nonprotein nitrogen was 26 mg. per cent. Other blood chemistry studies (chlorides, total serum protein, and albumin-globulin ratio) were normal. Examinations of urine for tumor cells on several occasions were negative. At cystoscopy a nonfunctioning right kidney was found, with obstruction in the ureter at 11 cm.

Pyelograms showed a normal left kidney. There was nonfilling on the right side above the level of the fourth lumbar vertebra. The right kidney was twice the normal size with a staghorn calculus present. Preoperative diagnosis was right calculus pyonephrosis.

After a series of blood transfusions and general supportive measures, the patient's red blood count increased to 4,060,000 cells.

A right nephrectomy was performed on February 26, 1947, under sodium pentothal anesthesia. Her postoperative course was uneventful, and she was discharged fifteen days after operation. Outpatient department records indicate that this patient gained 10 pounds in the first two months after operation and that her general health was much improved.

The pathologic report was as follows: The extirpated kidney weighed 500 Gm. Hemisection of the organ revealed a striking picture of a fatty, fibrous, nodular tissue replacing the normal architecture. The pelvis was distended by purulent matter; two portions of a staghorn calculus were contained in this thick, heavy, purulent exudate.

Microscopic examination showed the kidney parenchyma to be almost completely replaced by fat and a granulation tissue presenting evidence of a subacute inflammation (Fig. 3). This replacement tissue had infiltrated between remnants of the tubules and glomeruli. The inflammatory cells included segmented granulocytes, plasma cells, round cells, and fibroblasts of varying ages. Extensive areas, composed of lipoid macrophages (typical foam cells), were noted scattered throughout the granulation tissue. In some of these macrophages the transition to typical fat cells can be traced. The majority of these cells showed the usual dense foamy cytoplasmic pattern with central location of the nucleus. In certain of these cells, however, the foamy pattern showed clearing, and moving of the nucleus to the cellular border (Fig. 4). No reticular framework was left in certain of these cells, thus making them indistinguishable from adult fat cells. They were often seen to be still surrounded by the cells comprising the lipoid granuloma. The scanty remnants of kidney parenchyma showed various degrees of degeneration such as intercapillary sclerosis of glomeruli, thickening of the capsule of Bowman, and hyalinization of whole glomeruli.

The final pathologic diagnosis was fatty replacement of kidney tissue in pyonephrosis.

Case 3.—Mrs. M. S., age thirty-eight, was admitted to the Deaconess Hospital on January 12, 1947. She complained of right upper quadrant pain and tenderness with recurrent attacks of chills and fever, a weight loss of 30 pounds in four months, frequency, dysuria, and occasional nocturia.

Examination revealed an obese white woman with a poorly defined mass in her right upper quadrant. Laboratory findings were essentially negative.

At cystoscopy an obstructing calculus 1 cm. in diameter was found. The right kidney pelvis and calyces were markedly dilated above this and had a serrated, "moth-eaten" appearance on x-ray examination, with no function from this side. The psoas muscle shadow was obliterated on the right. The left kidney was normal. Preoperative diagnosis was right perinephritic abscess with right pyonephrosis.

At operation on January 27, 1947, a perinephritic abscess was encountered and drained. Approximately 300 cc. of purulent matter was evacuated. Cultures on this pus showed a heavy growth of Bacterium coli. The patient was discharged on February 6, 1947, still having a small amount of serous drainage from her incision.

On April 12, 1947, this patient was readmitted for nephrectomy. Since her last discharge she had felt well and had been able to do her housework every day. She had had sporadic purulent drainage from the operative incision in her right flank. Slight right costovertebral angle pain was experienced when drainage was minimal or had stopped; this subsided when drainage again commenced. She had noticed moderate dysuria and nocturia once nightly during the week preceding admission.

A right intracapsular nephrectomy was performed on April 14, 1947, without incident. Her postoperative course was uneventful. She was discharged on April 29, 1947.

The pathologic report was as follows: The removed kidney weighed 110 Gm. Cross section showed the normal kidney architecture to be destroyed and replaced by areas of softening and necrosis in the region of the cortex and medulla. These areas which were scattered throughout the kidney substance were 1 to 2 cm. in diameter. The normal structure of the pyramids was replaced by yellowish-gray fibrous tissue.

Microscopically, the normal renal structure was seen to be completely destroyed, except for occasional tubular structures and glomerular remnants. There were large necrotic-appearing areas in which polymorphonuclear cells, round cells, and predominantly huge lipoid macrophages were the principal constituents. Large areas of hemorrhage and the occasional presence of true lymphoid follicles with germinal centers were also noted. There was no evidence of tuberculosis. In some of the necrotic-appearing regions the lipoid macrophages were seen to be apparently moving into the accumulations of round cells, plasma cells, and polymorphonuclear leukocytic debris. Some of these macrophages showed clearing of their reticular structure and marginal location of their nuclei. In other areas the fat cells were present in chronic granulation and markedly fibrotic tissue, similar to the fat metamorphosis sometimes found in the submucosa of the appendix following inflammation.

The final pathologic diagnosis was chronic pyelonephritis and pyonephrosis with beginning metaplasia of the kidney tissue.

Case 4.—Mrs. A. G., a forty-five-year-old housewife, was admitted to the Deaconess Hospital on March 7, 1947, stating that she had had an attack of intense right upper quadrant abdominal pain, lasting for seven days, two months prior to admission. Subsequent x-ray studies revealed what seemed to be a kidney stone.

A right upper quadrant mass, the size of a large grapefruit, was felt on physical examination. This was separate from the liver and was slightly tender. Some right costovertebral angle tenderness was likewise noted.

Cystoscopic examination revealed a nonfunctioning right kidney with no dye excretion in fifteen minutes. The left kidney was normal.

Roentgenologic studies showed a staghorn calculus in the vicinity of the right kidney; several small calculi were seen lying just inferior to the larger one. Intravenous urography indicated a normal pelvis, calyces, and ureter on the left side. There was no

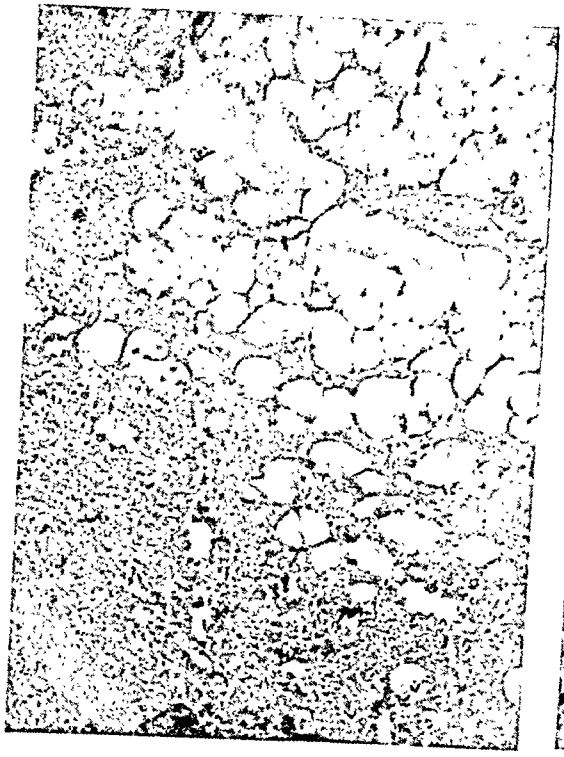


FIG. 5. Case 4: Chronic inflammatory tissue, mature fat tissue, and lipoid granuloma. No sharply demarcated boundaries are demonstrable between the renal tissue and the lipoid granuloma. (100 ×)

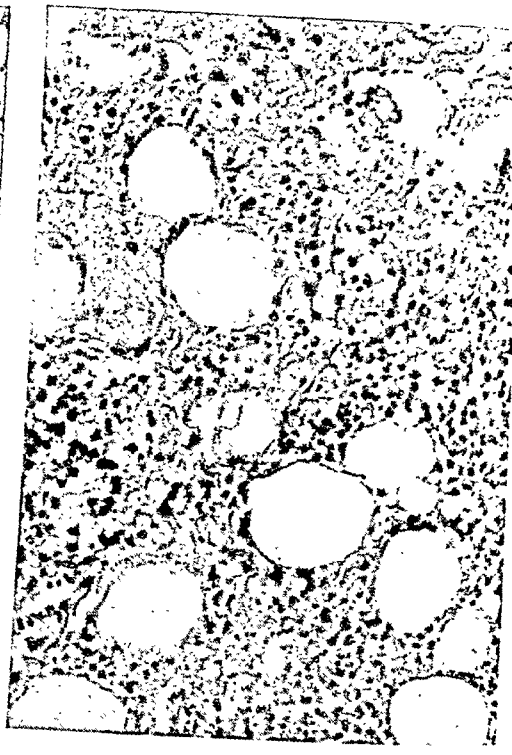


FIG. 6. Same as Fig. 5. (200 ×)

excretion of the injected dye on the right in thirty minutes. Preoperative diagnosis was right calculus pyonephrosis.

A right intracapsular nephrectomy was performed on March 17, 1947. This type of procedure was deemed advisable because the kidney was small and surrounded by approximately 3 cm. of dense, scarred fatty tissue. The incision was closed with drainage. The patient's postoperative course was uneventful.

The pathologic report was as follows: The extirpated kidney weighed 130 Gm. and measured 9 by 5 by 5 cm. in size. Upon section, this organ was seen to be almost entirely composed of fat. Only at its lower pole was there a small amount of tissue having any semblance of renal parenchyma; this appeared to be markedly inflamed. A large staghorn calculus was found embedded in the shaggy inflammatory tissue.

Microscopic study of representative portions of this specimen revealed necrotic masses, surrounded by a chronic granulation tissue, partly enclosed in a fibrous capsule (Figs. 5, 6). Although this necrosis appeared somewhat caseous, nothing in the immediate vicinity indicated a tuberculous process. This diagnosis, however, could not be excluded on the basis of these microscopic sections. Mature fat tissue was observed interspersed with chronic granulation tissue, round cell accumulations, and fibrotic tissue.

The final pathologic diagnosis was marked fatty replacement of the kidney.

Case 5.—Mrs. H. K., a thirty-six-year-old housewife, was admitted to the Deaconess Hospital on September 12, 1947. She complained of attacks of sudden severe right upper quadrant abdominal pain, extending through to the region of the right costovertebral angle, of six months duration. These attacks were associated with fever, excessive perspiration, nausea, and emesis. In addition to the above symptoms, she also complained of nocturia (2 to 3 times), urgency, frequency of urination (20 to 30 times), and pyuria.

Physical examination on admission to the hospital revealed an obese woman having a tender, respiratory-mobile mass in the right upper quadrant of the abdomen extending four finger breadths below the costal margin.

X-ray examination of the abdomen on September 14, 1947, showed a large right kidney in an abnormally low position. A laminated shadow, having the appearance of a gallstone, was noted just to the right of the third lumbar vertebra. On September 17, 1947, intravenous urograms showed excretion of the dye in good concentration on the left in five minutes. No excretion of the dye was noted on the right by x-ray in eight hours.

Cystoscopic examination was carried out on Sep-

tember 19, 1947. No phenolsulfonphthalein returned from the right ureteral orifice; the dye appeared from the left ureteral orifice, in normal concentration, in four minutes. Retrograde pyelograms showed that the calculus, seen on x-ray films taken five days previously, was in the right renal pelvis. A suggestion of a filling defect in the pelvis about the calculus was noted. The dye did not fill the calyces of this kidney. Preoperative diagnosis was right calculus pyonephrosis.

On September 22, 1947, the right kidney was removed.

The pathologic report was as follows: This organ weighed 200 Gm. and measured 13 by 7 by 6 cm. in size. The capsule stripped with difficulty; in some areas it was so adherent that the stripping was almost impossible. On hemisection a greatly dilated pelvis and calyces having a ragged hemorrhagic lining were noted. The renal parenchyma was white and fibrous in appearance and showed focal, yellowish, fatty nodules adjacent to the calyces. Most of the characteristic kidney structure could no longer be identified.

Microscopic examination showed far-advanced destruction of the kidney parenchyma and especially of the convoluted tubules. Massive interstitial infiltration of round cells, plasma cells, and polymorphonuclear leukocytes was strikingly evident. The glomeruli appeared to be somewhat better preserved; their capsules, however, were thickened and in some areas showed various degrees of degeneration. The wall of the kidney pelvis showed marked infiltration by polymorphonuclear leukocytes and round cells. Free pus was noted in the lumen of the pelvis. Certain areas presented a picture of marked interstitial fibrosis which had advanced to such a degree as to make the kidney tissue all but unidentifiable. Fat was seen to be invading the renal substance in these areas. The transition from a chronic granulomatous tissue to one made up chiefly of fat-containing macrophages to true fatty tissue was clearly observed.

The final pathologic diagnosis was chronic calculus pyelonephritis and pyonephrosis with beginning fatty metaplasia.

Case 6.—Mrs. M. L., a forty-year-old housewife, was admitted to the Deaconess Hospital on November 9, 1947, complaining of pain in the right costovertebral angle, urgency, frequency, nocturia, nausea, emesis, chills, and fever. These symptoms had persisted for four days prior to hospitalization. Her past history revealed that she had been treated for pyelitis and cystitis nine years before.

At the time of her admission this patient was noted to be well nourished. She had, however, a low-grade fever. Her blood pressure was 96/60. The remainder of the examination was negative except for marked tenderness and spasm noted in the right costovertebral angle extending down into the right lower quadrant of the abdomen. No masses were palpable.

A 3 plus albuminuria and many clumped white blood cells per high power field in the urine sediment were the only positive urinary findings. Blood studies revealed 4,620,000 red blood cells per cu. mm., 13.6 Gm. of hemoglobin per 100 cc. (Sahli), and 12,000 white blood cells per cu. mm. The differential count indicated a moderate shift to the left.

Cystoscopy revealed an infected bladder. An infected right hydronephrosis of 175 cc. capacity was found. Drainage from the left kidney was normal with clear urine. Phenolsulfonphthalein appeared in normal concentration from the left ureter in five minutes; none appeared on the right. Analysis of the urine from the right kidney revealed a 4 plus albumin and many white blood cells. The urine from the left kidney was negative. Retrograde pyelograms demonstrated the right ureter, pelvis, and calyces to be markedly distended, irregular, and ragged in outline. The left pyelogram appeared to be normal. Preoperative diagnosis was right pyonephrosis.

A right nephrectomy was performed on November 17, 1947, without incident. The organ was densely adherent to the peritoneum and was freed from this and the perirenal fat with some difficulty. The patient ran an essentially uneventful postoperative course and was discharged on her thirteenth postoperative day.

The pathologic report was as follows: The removed kidney weighed 240 Gm. and measured 12 by 7 by 6 cm. in size. The external surface was smooth. Hemisection showed the cortex to be atrophic and almost absent. The medulla was replaced by fatty tissue. The pelvis was markedly dilated.

Microscopic examination revealed evidence of chronic nonspecific pyelonephritis and pyonephrosis with extensive destruction of the kidney parenchyma. Accumulations of fat cells were seen in a matrix of hyaline fibrous tissue. A few lipoid macrophages were noted in the vicinity of the mature fat cells.

The final pathologic diagnosis was advanced fatty metamorphosis of the kidney tissue.

Case 7.—Mr. W. S., a fifty-four-year-old foreman, was admitted to the Deaconess Hospital on August 2, 1946, with the complaints of chills, fever, pyuria, and dull aching pain in the right flank for five days. He claimed to have had similar episodes every six to eight months for the past two years. About fifteen years previously he had passed several stones from his bladder.

Physical examination revealed a well-nourished man with tenderness and spasm over the right flank.

Blood studies were normal throughout. Urinalysis showed albumin 2 plus with many pus and blood cells microscopically.

Cystoscopy with pyelography showed a calculus pyonephrosis on the right side, with nonvisualization of the right psoas muscle and a small nonobstructing left ureteral calculus. The left ureteral calculus was removed several days later with a nylon loop and measured 14 by 6 mm.

One week later, August 28, the right kidney was explored and a large perinephritic abscess was drained. It was not feasible to remove the kidney at this time. He was discharged with a draining sinus from his right flank incision.

Sixteen months later he was readmitted to the hospital. He had gained 20 pounds in weight, and

his only complaint was the draining sinus in his operative scar.

Physical examination revealed an obese white man with a blood pressure of 130/90 and a sinus 5 mm. in diameter at the inferior border of his right flank incision.

Urinalysis again revealed albumin 2 plus with microscopic clumped pus. Blood studies were normal. Skiodan acacia, injected in the sinus tract, showed it to pass into the right kidney, filling the calyces, which were blunted and distorted. Intravenous pyelograms revealed a normal left kidney with a nonfunctioning right calculus pyonephrosis. Preoperative diagnosis was right calculus pyonephrosis.

At operation a sinus tract was dissected out to the region of the right kidney. It was surrounded by dense, fatty, and inflammatory tissue. An intracapsular nephrectomy was attempted, but because the kidney was very firmly adherent to the true capsule, this had to be abandoned. The kidney and surrounding mass of fatty, inflammatory tissue were removed by block dissection after the ureter had been identified and cut. The pedicle was tied off, but because of the shortness of the stump, one clamp was left in place on the pedicle. The incision was closed in layers with drainage. The clamp on the pedicle stump was removed in seventy-two hours.

The pathologic report was as follows: The specimen consisted of a lump of fat tissue roughly assuming the shape of a kidney. Hemisection showed that the renal parenchyma was almost replaced by fat and soft, fibrous tissue. Only at the lower pole an approximately cherry-sized piece of solid tissue, resembling that of kidney, was seen. Several calculi of varying size and shape were scattered throughout the specimen.

Microscopically, a small piece of fairly well-preserved kidney tissue was seen. This showed focal interstitial round cell and fibrous tissue accumulations as well as epithelial degeneration in the tubules. All glomeruli exhibited hyaline thickening of their capsules and basal membranes. The transition from the relatively well-preserved renal tissue to the adjacent fat tissue containing a few areas of fibrosis and some fibrotic remnants was abrupt.

The pathologic diagnosis was renal lipomatosis (fatty replacement of the kidney parenchyma) secondary to chronic purulent infection.

Case 8.—Mr. C. P., age eighty-one, expired twenty-one hours after admission to the Hospital. His death was attributed to a peritonitis secondary to a traumatic perforation of the rectum. An incidental finding at autopsy was a lipomatosis of the right kidney.

Gross examination of this organ showed marked thinning of the cortex and considerable fatty proliferation in the medulla. Extensive areas of interstitial, round, and plasma cell infiltration and fatty replacement in areas of destroyed parenchyma were noted microscopically.

Comment

Since renal lipomatosis appears to be a replacement process, one would expect to find it existing in varying degrees of progression. This was th case, not only in the eight patients herein r ported, but also in those reported in recent yea by other authors. In this series, five cases showe far-advanced replacement of the renal substan (Cases 1, 2, 4, 6, and 7). The process w moderately advanced in one (Case 8) an minimally present in two (Cases 3 and 5). might be expected, the earliest cases reported the literature where those of marked fatty r placement, for these first caught the attention the pathologist and surgeon. The case which w incidentally discovered at autopsy (Case 8) h developed without symptoms referable to t genitourinary tract.

Certain of these cases suggest a mechanism f the development of renal lipomatosis somewh different from those propounded by other i vestigators. These cases (Numbers 1 to 6) ind cate that the first stage of fatty replacement co sists in the formation of a lipoid granuloma. T macrophages of the granulomatous areas inge fat from the cellular debris of the destroyed kidn parenchyma and the abundant pus cells usual found in their neighborhood. It appears th then only, after this intermediate stage of lipo granulomatosis, the definite replacement by adu fat tissue takes place. Because of these findin it is not necessary to surmise that fat from t renal sinus moves in to fill the area destroyed infection. Fatty replacement is also seen in oth organs. For instance, the very common replac ment of the submucosa of the appendix followi chronic infection is well known. In this exampl invasion from a contiguous structure is not po sible.

Another finding which is somewhat differe from the pathologic picture described by ma investigators is that the demarcation of the fat tissue from the diseased kidney tissue, althou structurally still identifiable, is not sharp. definite capsule separating these two types tissue was not seen in this series of cases. Acc mulations of fat cells were found far inside t granulomatous area; these were never found noninfected kidney tissue.

A number of investigators have reported th general obesity is a usual finding in cases of ren lipomatosis. This is not substantiated in th series of cases, for half of the eight cases were average or slight physique.

The equal distribution of renal lipomatosis, regard to side involved and sex as reported b numerous authors, was likewise not found in th series of cases. All except two (Cases 7 and were found in women, and in seven of the eig cases the right kidney was involved in th pathologic process.

In certain investigations the idea was brough

rward that the most advanced type of renal pomatosis occurs after drainage of an advanced lculus pyonephrosis and that the many reported ses, having either a spontaneous or postopera-ve draining sinus, substantiate this view. Two f this series of eight cases had draining sinuses rior to nephrectomy. One of these (Case 7) had ad surgical drainage of a kidney abscess contain-g calculi with a subsequent persistent draining nus sixteen months prior to removal of his idney. Pathologically this specimen presented picture of advanced renal lipomatosis. The ther case (Case 3) had had a kidney abscess rained three months prior to nephrectomy. A raining sinus had persisted in the interval be-veen operations. In this latter instance the idney was pathologically diagnosed as a chronic yelonephritis and pyonephrosis with beginning pomatous metaplasia of the kidney tissue.

Thus we have two cases exhibiting persistent raining flank sinuses between surgical drainage f kidney abscesses and nephrectomy. The xtirpated kidney in one showed very early fatty ansformation, whereas the other presented a icture of far-advanced renal lipomatosis. These xtreme pathologic variations of fatty replace-ent in cases of draining flank sinus would sug-est that the persistence of a sinus per se is due ntirely to blockage of the extrarenal urinary pas-age and that it is not necessarily an accompani-ent of renal lipomatosis. The development of enal lipomatosis is favored in complete blockage ecause the resulting stagnation of urine is con-ucive to bacterial increase which, in turn, favors nfection of the renal substance. The cases herein eported all showed evidence of severe infection f the parenchymal kidney tissue. The case emonstrating minimal fatty change with a drain-ng flank sinus was found in a thirty-eight-year-ld individual who was unequivocally shown to ave a complete blockage at the ureteropelvic unction.

It is reasonable to postulate that cases having alculi in the pelvis or calyces can readily have the elvic outlet occluded by one, or a part of one, of hese calculi. With the development of increased ressure behind such a stone and formation of edema in the ureteropelvic tissue adjacent there-o, the obstruction can become complete. Follow-ng release of a resulting increased intrapelvic pres-ure by surgical incision of a pyonephrosis or erirenal abscess communicating with the pelvis, an adequate exit for the contained urine and pus is established. In time the edema about the im-pacted ureteropelvic calculus has a chance to sub-side, and unless the stone has eroded into and be-come attached to the wall of the pelvis or ureter, a partial ureteral passage may again be established. However, if the obstruction at the pelvic outlet is not relieved, either by surgical intervention or by a subsiding of the edema about a stone, a persistent sinus very likely will result if there is any function of the particular kidney in question.

A careful search for calculi in the pelvis and calyces is indicated when a distended kidney pelvis is opened into for any cause. If all stones are removed, the possibility of their occluding the normal urinary passages, and so encouraging a persistent flank sinus, is obviated. The taking of portable x-ray films of the kidney area on the operating table can be a valuable aid in the location of such stones. Using a technic advocated by Sosman, a developed and fixed film of the kidney in question can be viewed by the operating surgeon ten minutes after its exposure.[17] Since 80 per cent of renal stones contain enough calcium to be seen on roentgen examination, the use of contrasting radiopaque dye has not been considered necessary.[18] In the case of stones associated with intrapelvic infection, the percentage of calculi containing enough calcium to be detectable by roentgen examination probably approaches 100 per cent.

Five of the seven cases which were operated upon showed no phenolsulfonphthalein excretion from the side involved by the fatty replacement. Another (Case 7) showed a poor concentration of the dye from the affected kidney eight minutes after it was injected intravenously. Ureteral catheterization was not attempted in the other case (Case 1) because of the patient's poor reaction to cystoscopy. The passage of thick pus from the left ureteral orifice, however, was noted prior to removal of the cystoscope.

The removal of kidneys in which fatty replacement has progressed to an advanced degree is often technically difficult. The adipose tissue usually found in renal lipomatosis is much firmer than ordinary fat. If too much of this is caught between clamps being closed across pedicle vessels, proper occlusion of the latter cannot be accomplished. The toughness of the fat found in renal lipomatosis can be understood when one observes the fibroblastic proliferation and round cell infiltration in microscopic sections. Because of the unyielding firmness of this tissue, intracapsular nephrectomy was the operative procedure in three of the seven cases taken to surgery.

Summary and Conclusions

1. Eight new cases of renal lipomatosis are reported.

2. Microscopic analysis suggests a new theory regarding the pathogenesis of this condition, namely, that lipomatosis develops through the transitional stage of a lipoid granuloma which is then replaced by adult fat tissue. It is felt that no invasion from the renal sinus is necessary to ex-

plain this replacement. Attention is drawn to similar processes in the chronic inflammation of other organs.

3. The role of renal calculi in establishing and maintaining severe renal infections is stressed.

The x-ray findings were reported by Dr. Roy E. Seibel, roentgenologist, Deaconess Hospital.

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Discussion

Albert M. Crance, M.D., *Geneva.*—Drs. Farrow, Cross, Tannhauser, and Andrews are each to be congratulated on the excellent preparation of this treatise on renal lipomatosis, so ably presented by Dr. Farrow. It is an excellent piece of pathologic research. Unquestionably, there is such a thing as fat replacement in a kidney damaged by some other cause, and in rarer instances, as they have mentioned, it appears to exist in otherwise normal kidneys. The fact that pathologists have encountered it at autopsy in cases of sudden death, in which no urologic symptoms appeared to have existed is proof of this.

However, in seven of the eight cases they are reporting, the kidney was removed, not because of lipomatosis, but for obvious reasons of pyonephrosis, hydronephrosis, and calculi, including staghorn calculi, in a nonfunctioning kidney. In other words, after the kidney was removed, they were able then, and only then, to add this pathologic entity to their diagnoses.

The writers have very clearly stated that fat replacement is apparently concomitant with other pathology and that it is not a condition we are going to be able to diagnose preoperatively. Therefore, we should not be too concerned about its presence clinically. It certainly would not appear to be a condition which will affect us, as urologists, in our judgment concerning the management of renal disease. It is, moreover, a pathologic entity occurring *with* or more often *following* other pathology.

Some twenty years ago I removed a left kidney from a man fifty-two years of age—a nonfunctioning, grossly bleeding kidney with elongated and narrowed calyces, typical of renal neoplasm. Upon exposing the kidney, there was no external evidence of tumor except that the kidney felt very hard and its cortex was studded with peculiar, deep yellowish deposits. On hemisection, it was like cutting through a large lipoma, no normal kidney tissue remained. The pathologist termed it fatty degeneration of the kidney. I really feared at the time that this patient would in all probability develop a similar condition in the opposite kidney, although a normal preoperative pyelogram and normal function existed on the right side. However, he is now in his seventies, very much alive and well. I wonder now if this was possibly not an extreme case of the very condition Dr. Farrow has presented to us today.

One thing is certain—we will probably have a keener interest in the pathology of those kidneys which, in the future, we will find reason to remove. On the other hand, we will not be performing nephrectomies because of the diagnosis of lipomatosis but rather for a major condition which has damaged the kidney sufficiently to cause this destroyed tissue to have been replaced by fat.

SMEAR TEST DETECTS INACCESSIBLE CANCERS

Earlier detection of cancers arising in the gallbladder, pancreas, and certain bile ducts appears to be possible by use of the smear test, two Boston doctors reported in the September 24 issue of the *Journal of the American Medical Association.*

The test is the most hopeful technic yet described for early detection of this group of otherwise obscure and inaccessible malignant tumors which accounts for at least 10,000 deaths annually in the United States, say Drs. H. M. Lemon and W. W. Byrnes.

The smear test is based on examination under the microscope of shed body cells to see if cells indicating a malignant condition are present. Sediments of material taken from the portion of the small intestine adjoining the stomach are stained by the method developed by Papanicolaou.

The doctors studied 38 patients with nonmalignant disease of the liver, pancreas, small intestine, and biliary tract and 16 patients with proved cancer of these areas.

In none of the patients with nonmalignant disease did the smear test show even questionable evidence of cancer. In the 16 cases of proved cancer, 11 were suspected or diagnosed from the smear test.

JRETEROSIGMOID ANASTOMOSIS BY DIRECT ELLIPTIC CONNECTION

EED M. NESBIT, M.D., and A. WAITE BOHNE, M.D., Ann Arbor, Michigan

THE need for improvements in the technic of ureterointestinal anastomosis has long been preciated by surgeons familiar with this opera- n. To date, some fifty to sixty different meth- have been conceived or tried. The operation cribed in the present communication employs ct anastomosis of the ureter to the bowel. oes not involve a new surgical procedure, for is one of 11 surgical plans or principles which been applied to the implantation operation. ne plan of direct anastomosis was probably performed on a human being in 1878 by h. His procedure consisted chiefly of an o-side anastomosis, suturing mucosa of r to mucosa of bowel. This was a tedious ainstaking process; leakage was common- and the results not spectacular. A similar ic of direct anastomosis was described in by Reuben Peterson who, instead of an -side connection, followed the principle n small bowel surgery and made a side-to- ion. This was only in dogs and, as far as vn, was never performed on humans.

her of the above two plans gained very ceptance. Even at that time, most sur- elt that it was essential to provide some a valvelike mechanism at the anastomotic order to prevent direct reflux of fecal l into the urinary tract and at the same cure maximum protection against the sent danger of leakage. The tunneling n, popularized by Coffey, in which the as buried in the bowel wall, fulfilled these uirements and became, therefore, the n of choice.

nnel principle, however, was not without , since it was readily observed that any ng dilatation of the ureter, other than precluded the use of this method. Like- greatest cause for failure after implan- s stricture formation at the anastomotic resultant hydronephrotic dilatation of tract and subsequent renal insufficiency. ture formation occurred at one or more laces in the anastomosis—at the pro- eteral stump, in the tunnel area itself, erosal margin where the ureter entered (Fig. 1).

th the advent of sulfa drugs and anti- biotics, complete cystectomy for carcinoma of the bladder was not always performed when it might seem indicated, because pre-existing dilatation of the ureters or the ever-present fear of stricture formation often led the surgeon to choose a less radical procedure not necessitating ureterointestinal transplantation.

The operation presented here again reverts to the principle of direct anastomosis and eliminates entirely the tunnel procedure with its inherent faults (Fig. 2). Instead of a direct connection by Smith's end-to-side technic or a side-to-side

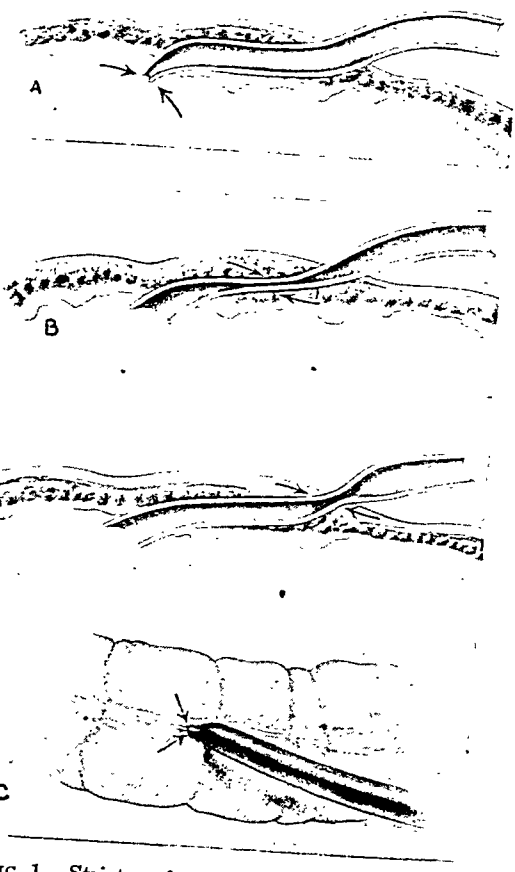


FIG. 1. Stricture formation in the anastomosis: (A) at the projecting ureteral stump, (B) in the tunnel area itself, and (C) at the serosal margin where the ureter entered the bowel.

by invitation, at the 143rd Annual Meeting of ociety of the State of New York, Buffalo, Sec- gy, May 5, 1949.

plain this replacement. Attention is drawn to similar processes in the chronic inflammation of other organs.

3. The role of renal calculi in establishing and maintaining severe renal infections is stressed.

The x-ray findings were reported by Dr. Roy E. Seibel, roentgenologist, Deaconess Hospital.

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Discussion

Albert M. Crance, M.D., *Geneva.*—Drs. Farrow, Cross, Tannhauser, and Andrews are each to be congratulated on the excellent preparation of this treatise on renal lipomatosis, so ably presented by Dr. Farrow. It is an excellent piece of pathologic research. Unquestionably, there is such a thing as fat replacement in a kidney damaged by some other cause, and in rarer instances, as they have mentioned, it appears to exist in otherwise normal kidneys. The fact that pathologists have encountered it at autopsy in cases of sudden death, in which no urologic symptoms appeared to have existed is proof of this.

However, in seven of the eight cases they are reporting, the kidney was removed, not because of lipomatosis, but for obvious reasons of pyonephrosis, hydronephrosis, and calculi, including staghorn calculi, in a nonfunctioning kidney. In other words, after the kidney was removed, they were able then, and only then, to add this pathologic entity to their diagnoses.

The writers have very clearly stated that fat replacement is apparently concomitant with other pathology and that it is not a condition we are going *to be able to diagnose preoperatively.* Therefore, we should not be too concerned about its presence clinically. It certainly would not appear to be a condition which will affect us, as urologists, in our judgment concerning the management of renal disease. It is, moreover, a pathologic entity occurring *with* or more often *following* other pathology.

Some twenty years ago I removed a left kidney from a man fifty-two years of age—a nonfunctioning, grossly bleeding kidney with elongated and narrowed calyces, typical of renal neoplasm. Upon exposing the kidney, there was no external evidence of tumor except that the kidney felt very hard and its cortex was studded with peculiar, deep yellowish deposits. On hemisection, it was like cutting through a large lipoma, no normal kidney tissue remained. The pathologist termed it fatty degeneration of the kidney. I really feared at the time that this patient would in all probability develop a similar condition in the opposite kidney, although a normal preoperative pyelogram and normal function existed on the right side. However, he is now in his seventies, very much alive and well. I wonder now if this was possibly not an extreme case of the very condition Dr. Farrow has presented to us today.

One thing is certain—we will probably have a keener interest in the pathology of those kidneys which, in the future, we will find reason to remove. On the other hand, we will not be performing nephrectomies because of the diagnosis of lipomatosis but rather for a major condition which has damaged the kidney sufficiently to cause this destroyed tissue to have been replaced by fat.

SMEAR TEST DETECTS INACCESSIBLE CANCERS

Earlier detection of cancers arising in the gallbladder, pancreas, and certain bile ducts appears to be possible by use of the smear test, two Boston doctors reported in the September 24 issue of the *Journal of the American Medical Association.*

The test is the most hopeful technic yet described for early detection of this group of otherwise obscure and inaccessible malignant tumors which accounts for at least 10,000 deaths annually in the United States, say Drs. H. M. Lemon and W. W. Byrnes.

The smear test is based on examination under the microscope of shed body cells to see if cells indicating a malignant condition are present. Sediments of material taken from the portion of the small intestine adjoining the stomach are stained by the method developed by Papanicolaou.

The doctors studied 38 patients with nonmalignant disease of the liver, pancreas, small intestine, and biliary tract and 16 patients with proved cancer of these areas.

In none of the patients with nonmalignant disease did the smear test show even questionable evidence of cancer. In the 16 cases of proved cancer, 11 were suspected or diagnosed from the smear test.

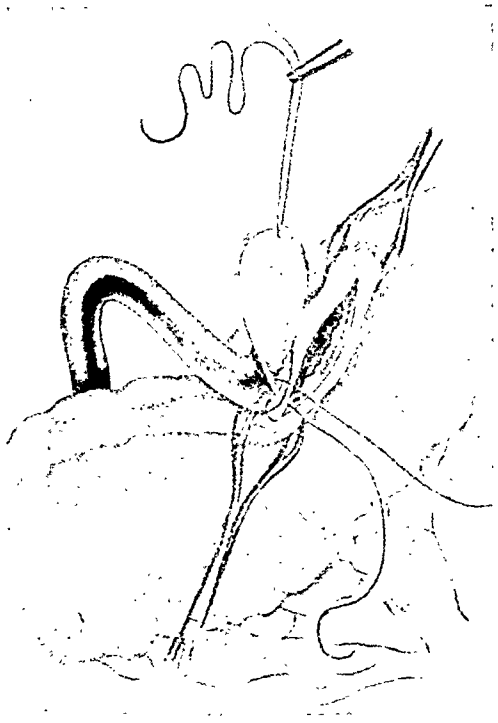


FIG. 5. Anastomosis readily accomplished, contiguous surfaces being of identical shape.

anterior superior spines, extending to the lateral border of each rectus muscle. Both rectus muscles are transected and the peritoneum opened. After packing off the small bowel, the ureter is identified just below the pelvic brim, the peritoneum overlying it incised, and the ureter picked up in a Babcock forceps. The ureter is then incised longitudinally on its posterior medial surface for a distance of approximately 1 to 1.5 cm. An appropriate portion of the sigmoid is then picked up between Babcock forceps and

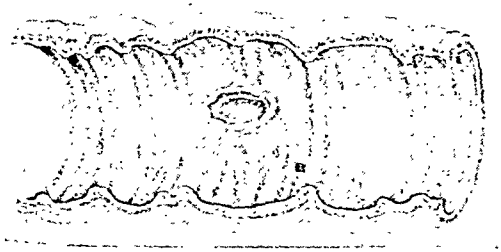


FIG. 6. Diameter of ureter not impinged on by constriction of connecting stoma.

accurate estimation of the exact implant site determined by coapting the ureter, sigmoid, and the parietal peritoneum in such a position that all structures will lie in the pelvis with no constriction or acute angulation when final fixation is performed.

The bowel is next incised longitudinally along the lateral taenia for a distance of 1 to 1.5 cm. Anchor or approximating sutures are then placed. The first of these sutures passes through all layers of the ureteral wall at the proximal end of the ureteral incision and then through all layers of the bowel at the superior margin of that incision. The second anchor stitch joins the distal portion of the ureteral flange to the inferior end of the bowel incision (Fig. 7). When slight traction is applied to these sutures, the edges of the bowel and ureter are brought into close apposition, facilitating the accurate placing of sutures. A grooved director inserted in the ureteral canal often aids in the accurate placing of sutures adjacent to the proximal anchor stitch. Anastomosis is then completed using 5 zero chromic catgut, either by interrupted technic or a running suture (Fig. 8).

Finally, the anastomotic site is anchored firmly to the lateral pelvic peritoneum in such a way as to preclude angulation or traction upon the

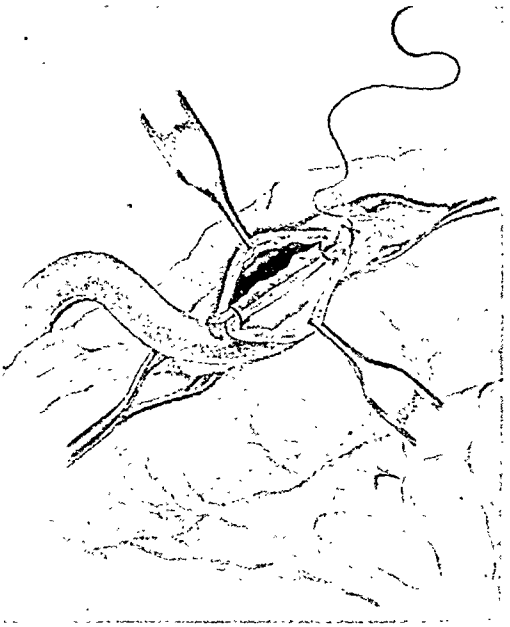


FIG. 7. Distal portion of ureteral flange is joined to inferior end of bowel incision by second anchor stitch.

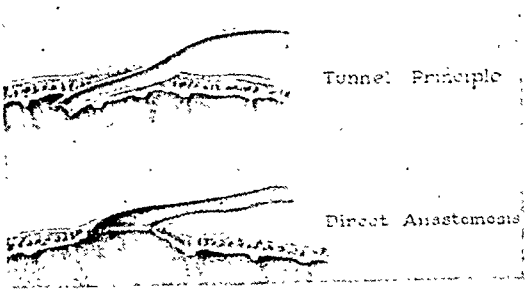


FIG. 2. Comparison of principles—tunnel procedure and direct anastomosis.

anastomosis, such as was used by Peterson, an oblique elliptic connection of ureter to bowel is performed. The free end of the ureter is incised longitudinally on one side, thus allowing the terminal portion of the ureter to assume a spoon-like shape (Fig. 3). The bowel is likewise incised longitudinally, which opening naturally becomes elliptic (Fig. 4). Anastomosis is now readily accomplished since the contiguous surfaces are of identical shape (Fig. 5). The advantage of forming a spatulate end of the ureter is to be found in the fact that this arrangement provides for an attachment to the bowel having a stoma with maximum diameter. Furthermore, any constriction of the connecting stoma will not impinge on the diameter of the ureter (Fig. 6). A simple running suture or interrupted sutures may be used, but all layers of each structure should be included, since only one layer of sutures is employed.

After completion of the anastomosis, it is extremely important that the bowel then be securely anchored to the parietal peritoneum in a position which will avoid angulation of the ureter.

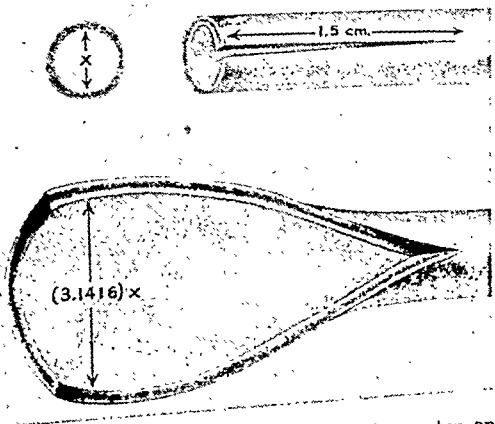


FIG. 3. Longitudinal incision of the ureter on one side allows the terminal portion of the ureter to assume a spoonlike shape.

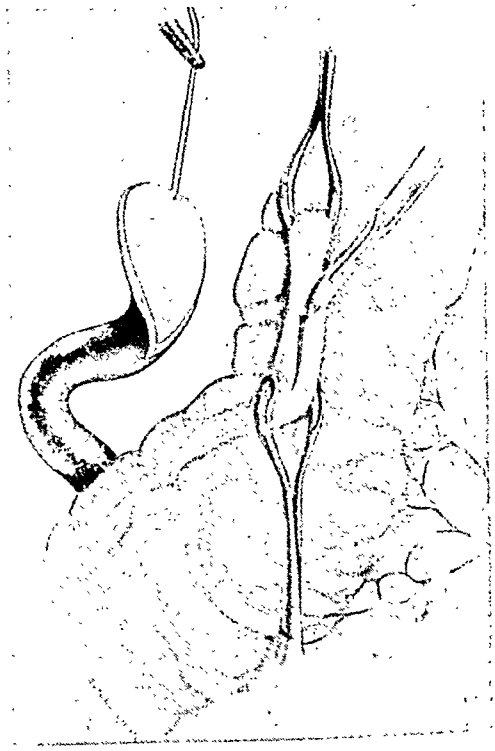


FIG. 4. Similar longitudinal incision of bowel which produces elliptic opening.

Operative Technic

The details of the technic are as follows: Laboratory studies of the nonprotein nitrogen, carbon dioxide combining power, hemoglobin, and white blood count are made. Intravenous pyelograms and x-ray of the chest are also obtained at this time. A three-day preoperative preparation consists of the following:

1. A modified Miles regime—1 ounce of a mixture of 1/4 ounce of magnesium sulfate crystals dissolved in 8 ounces of water given hourly, beginning at 6:00 A.M. and followed at 4:00 P.M. by a plain water enema. This is repeated daily.
2. Low residue diet.
3. Sulfasuxidine, 3 Gm. orally four times daily.
4. Streptomycin, 1 Gm. orally twice daily.

Operation is performed on the morning of the fourth day. With the patient supine and in deep Trendelenburg position, a lower abdominal transverse incision is made at the level of the

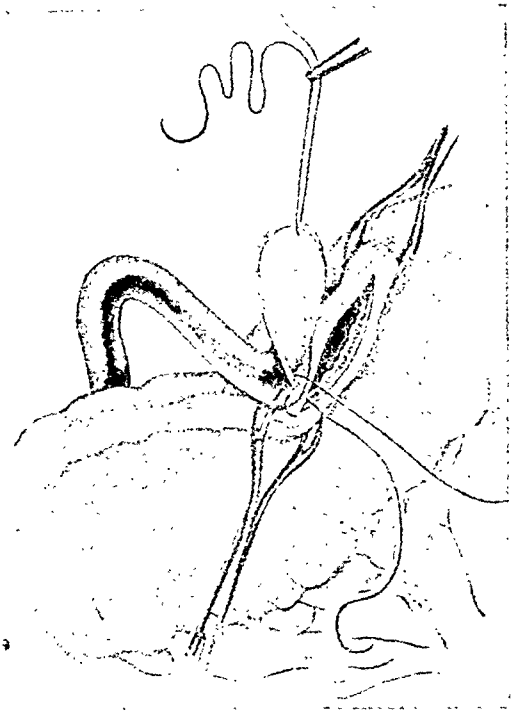


FIG. 5. Anastomosis readily accomplished, contiguous surfaces being of identical shape.

anterior superior spines, extending to the lateral border of each rectus muscle. Both rectus muscles are transected and the peritoneum opened. After packing off the small bowel, the ureter is identified just below the pelvic brim, the peritoneum overlying it incised, and the ureter picked up in a Babcock forceps. The ureter is then incised longitudinally on its posterior medial surface for a distance of approximately 1 to 1.5 cm. An appropriate portion of the sigmoid is then picked up between Babcock forceps and



FIG. 6. Diameter of ureter not impinged on by constriction of connecting stoma.

accurate estimation of the exact implant site determined by coapting the ureter, sigmoid, and the parietal peritoneum in such a position that all structures will lie in the pelvis with no constriction or acute angulation when final fixation is performed.

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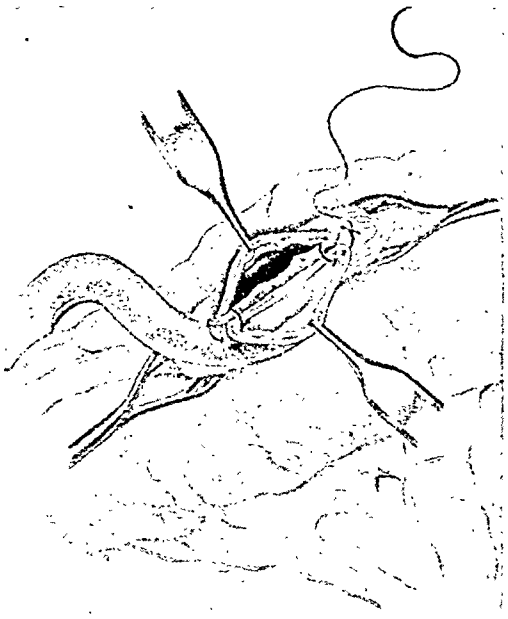


FIG. 7. Distal portion of ureteral flange is joined to inferior end of bowel incision by second anchor stitch.

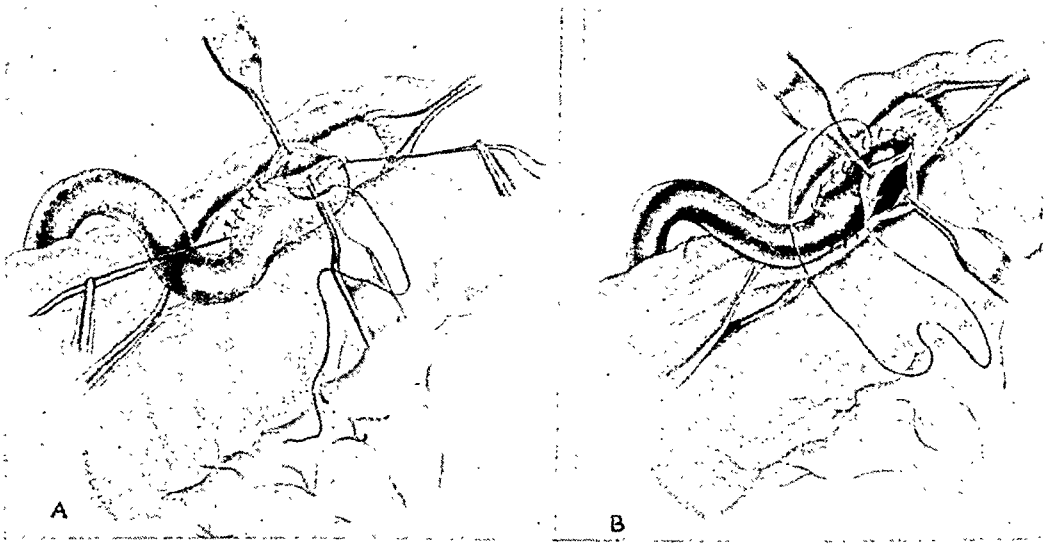


FIG. 8. Anastomosis completed with 5 zero chromic catgut using interrupted (A) or running sutures (B).

ureter. This is very important and should be performed with great care in all cases.

Following transplantation of the right ureter, the left ureter is handled in an identical fashion, providing there is sufficient mobility of the sigmoid. In some cases, however, mobilization of the colon is not sufficient to permit an easy lateral approximation of structures, and anastomosis is more readily accomplished by bringing the ureter through an opening made in the mesosigmoid, thus preventing angulation of the ureter and facilitating the connection. Fixation of the sigmoid must be carried out on the left side as it is on the right.

Cystectomy, when indicated, is now performed through the same abdominal incision. Closure is accomplished after insertion of two penrose drains into the retroperitoneal pelvic space, but no drains are left in the peritoneal cavity.

Postoperative care necessitates the use of an inlying rectal tube as a means of urinary drainage. Experience has shown that a dePezzer or Malecot catheter placed just inside the anus is the safest procedure. Unfortunately, one patient in the series that has been performed at the University Hospital suffered an anterior perforation of the rectum postoperatively due to the careless reinsertion of the ordinary type rectal tube. A mushroom type tube is now used as it accommodates itself readily to peristaltic action and remains fixed at the most distal portion of the bowel.

Other factors in the after care include ambulation on the second day, low residue diet as soon as tolerated, and streptomycin and sulfasuxidine for a period of one week.

Experience has shown that many patients following ureterosigmoid anastomosis develop acidosis from loss of base, regardless of the type connection used. Not only does the carbon dioxide combining power fall, but at the same time there occurs an elevation of the nonprotein nitrogen. The patient complains of anorexia, nausea, malaise, and a sense of impending disaster. At times this electrolyte loss may be quite severe, necessitating administration of intravenous fluids. While the mechanism of this chemical imbalance is not fully understood, it has been found to be readily corrected by the administration of additional base to the diet. A convenient form is either sodium bicarbonate or sodium citrate given in daily doses of 4 to 8 Gm. On the other hand, administration of too much base may lead to a relative alkalosis which, peculiarly enough, gives rise to the same symptoms. After the acidosis has been corrected, it has also been found that the nonprotein nitrogen rapidly returns to a normal value.

Mention should also be made of the observation that postoperatively these patients frequently take great pride in their ability to retain the urine in the bowel for prolonged periods of time. This accomplishment is to be deplored, since, evidently, gaseous reflux with ascending infection is far more prone to occur under this circumstance than if the colon is emptied promptly. These patients, therefore, should be instructed to evacuate the bowel every three to four hours.

Conclusion

The direct elliptic connection described above possesses some distinct advantages over the other technics that have previously been employed.

It provides for maximal diameter of the ureterosigmoidal opening. The elliptic shape counteracts concentric fibrosis and maintains a diameter three times that of the tubular ureter.

It assures freedom from ureteral stenosis with uninterrupted output of urine. The close apposition of the sutured edges together with through-and-through suture technic and thorough preoperative bowel preparation greatly decreases the chances of leakage and infection.

It permits the safe transplantation of dilated ureters.

Discussion

Carl Aberhart, M.D., *Toronto, Ontario, Canada* (*By invitation*).—I cannot concur with the author's view that dilated ureters cannot be transplanted by means of the Coffey technic. The only factor limiting the size of ureter which can be transplanted by this method is the transverse diameter of the colon. Various modifications of technic in these cases must be utilized.

The greatest single problem in the transplantation of ureters is the change which occurs postoperatively in the upper urinary tract due to lower ureteral obstruction. The site of this stenosis I am not prepared to discuss at this time.

Let me demonstrate to you these unfortunate changes which, in my hands, occur in the Coffey 1 type of transplant in approximately 75 per cent of cases. (*Slides shown.*) You will note two very important points: first that the hydroureter and hydronephrosis occur early and second that once established are constant and progressive. In our series I have never seen a hydronephrosis and hydroureter disappear.

This fact caused us much concern. We were convinced that cancer of the bladder should be treated by the application of general surgical principles, namely, ureterointestinal transplantation and total cystectomy, but we did not feel justified in replacing a known lethal disease, such as cancer, with an equally lethal disease in the form of pyelonephritis.

Many modifications were made in our technic, using Coffey type transplants, with uniformly unpredictable results. It was not until Dr. Nesbit reported to the genitourinary surgeons in May, 1948, his method of direct elliptic anastomosis that any satisfactory results seemed possible.

Since May, 1948, I have operated on 35 cases for the purpose of ureterointestinal transplantation, with or without cystectomy, by the Nesbit technic. Through experience we have found there are several points in the operation which should be emphasized. First, the preparation of the ureter must be such that there will be no looseness or slack in the ureter following completion of the anastomosis. The ostium of the ureter must be at least 1 to 1½ cm. in circumference. I would suggest to you that it is impossible to have too large an ostium and that, to be safe, always make it ¼ cm. larger after you feel it is large enough.

The ureter should be sutured to an opening in the rectosigmoid which is situated between the taenia or longitudinal bands. In our experience ureters transplanted into the taenia have become obstructed. This principle, as you will realize, is the direct opposite to that employed in Coffey type transplantations.

Following the anastomosis, the colon must be firmly immobilized to the lateral pelvic wall. We have found that 5 zero chromic catgut is not sufficiently strong for this purpose. We now use ordinary curved gastrointestinal suture.

There is one further point associated with this operative procedure which I should like to bring to your attention. I believe it unwise to attempt this type of anastomosis in patients whose ureters show evidence of acute ureteritis or where the clinical findings have suggested acute pyonephrosis or pyelonephritis due to lower ureteral obstruction. One such case was transplanted with a resulting urinary-fecal fistula appearing on the fifth day.

It would not be fair to conclude my remarks without telling you that, in my opinion, we have not yet reached the total answer to the satisfactory solution of ureterointestinal transplantation. The cause of the postoperative complications of nausea and distaste for food, occurring within a few days of operation, must be discovered. The reason for lowered carbon dioxide combining power occurring in later stages must be sought. It is likely that the whole biochemistry of the individual with urine in the lower colon will have to be studied.

It is my opinion, however, that the anatomic and functional results of ureterointestinal anastomosis, performed by direct elliptic suture, are consistently superior to those obtained by any other method. For this reason, this operative procedure must be mastered and included in the surgical armamentarium of all doctors dealing with serious lesions of the lower urinary tract.

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ETIOLOGY AND TREATMENT OF PANCREATITIS

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(From the Department of Surgery, New York University College of Medicine, and the Third (New York University) Surgical Division, Bellevue Hospital)

PANCREATITIS is a common disease frequently unrecognized because it simulates other acute upper abdominal conditions. It can usually be diagnosed easily if the possibility of its presence is considered and if routine serum amylase determinations are done in all such conditions. The diagnosis of acute pancreatitis is important because operation should never be done during the acute phase.[1-3]

An understanding of the etiology and pathology of the disease is based on the following points:

1. A common passageway is present between the bile and pancreatic ducts. Spasm of the sphincter of Oddi or, rarely, a stone impacted in the papilla will enable bile to enter the pancreatic ducts.[4,5] This common passageway was found in the great majority of our cases.

2. An emotional disturbance is the usual cause of spasm of the sphincter of Oddi (Fig. 1).

3. The inflammation of the pancreas is initiated by the bile salts present in the bile. This was proved by Flexner in 1906, and confirmed by Archibald, Dragstedt, Ireneus, and Wangensteen.[4,6-9]

4. Alkalinization of the bile salt solution by pancreatic juice renders it toxic and causes reactive edema and necrosis.

5. Necrosis and hemorrhage, which sometimes follow the initial edema produced by the bile salts, are due to the action of trypsin which has been activated by dead cells and exudate.

6. The local effects of acute inflammation of the pancreas may result in the following:

(*a*) Obstructive jaundice which is transient when due to swelling of the head of the pancreas. The bile duct may become tortuous and narrowed and even completely obstructed when the head of the pancreas becomes fibrosed, enlarged, and irregular (Fig. 2).

(*b*) Acute and chronic diabetes—A transient severe diabetes associated with severe acidosis and glycosuria may occur during periods of acute edema. With advanced destruction of the pancreas, a chronic diabetes may develop.

(*c*) Normal restitution—The attacks of edematous inflammation may resolve, and at a

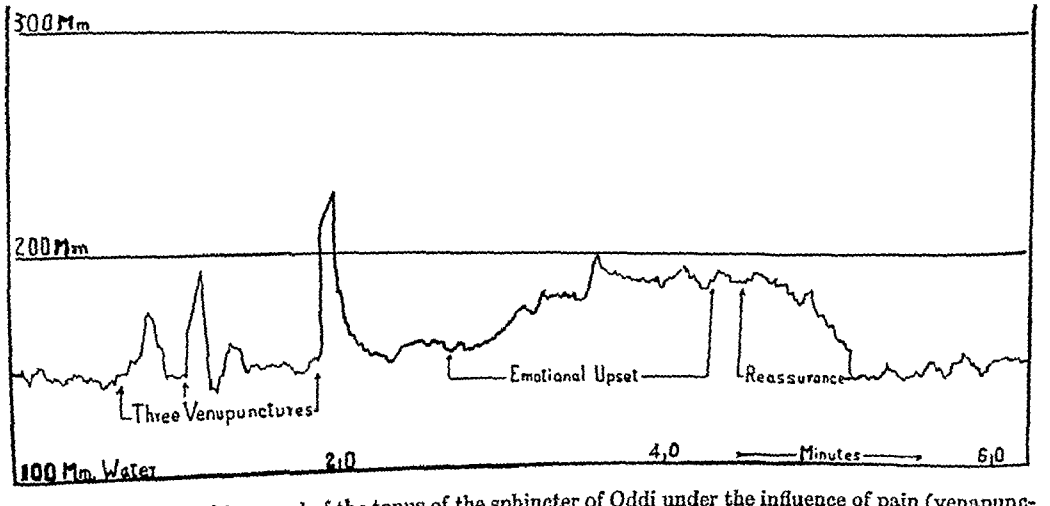


FIG. 1. Kymographic record of the tonus of the sphincter of Oddi under the influence of pain (venapunctures) and emotion. The increased tonus resulting from a feeling of hostility and resentment rapidly subsided on reassurance.

Aided by a grant from the National Institute of Health, U.S. Public Health Service, Grant Number RG807.
Presented at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo, Section on Surgery, May 6, 1949.



FIG. 2. Postoperative cholangiogram through the gallbladder in a patient who developed jaundice with each attack of pancreatitis shows marked constriction of the common duct at one point (arrow) with distortion and narrowing below that point. Marked dilatation of the biliary tract above the inflammatory stricture is present.

later date the pancreas will be found normal by direct observation at operation.

(*d*) Complete necrosis of the pancreas—A generalized hemorrhagic necrosis may lead to death due to large losses of fluids into the peritoneal cavity.

(*e*) A pancreatic cyst may replace a localized area of necrosis.

(*f*) Chronic pancreatitis—Recurrent attacks producing localized necrosis will lead to fibrosis and gradually destroy the pancreas. The loss of pancreatic juice will eventually result in steatorrhea, inability to digest food, or to maintain normal weight.

(*g*) Calcification of the pancreas—Under certain conditions, calcium carbonate stones will form in the pancreatic ducts and lead to obstruction, fibrosis, and loss of pancreatic juice secretion.

(*h*) Widespread inflammation of the upper part of the abdominal cavity followed by formation of adhesions, fibrosis and calcification. —The exudate from the inflamed pancreas pours out through the foramen of Winslow and involves the gallbladder, liver, transverse colon, and duodenum in a massive inflammatory exudate which eventually leads to fibrosis and adhesions. It may spread down the right lumbar gutter and involve the whole peritoneum, producing a paralytic ileus, with x-ray evidence of distended small bowel with fluid levels. Accumulation of fluid beneath the diaphragm may lead to subphrenic abscess. Areas of fat necrosis may become calcified and these calcific nodes may be found on the gastrohepatic omentum, on the liver, and on the mesentery throughout the peritoneal cavity.

(*i*) Varicosity of the portal system may occur as a result of the narrowing or occlusion of the portal vein due to the surrounding fibrosis.

7. General effects produced by acute inflammation of the pancreas:

(*a*) The serum amylase is elevated due to absorption into lymph and blood from the inflamed organ. In a mild attack the rise is transitory; in a severe attack it may last a week. If the pancreas is fibrosed and partially destroyed as a result of recurrent attacks, the serum amylase may be normal or low. A high serum amylase is diagnostic; a low figure does not exclude pancreatitis. Serum lipase is also elevated but is not usually measured because of technical difficulties.

(*b*) Elevation of serum trypsin is probably present but cannot be measured. Its presence is indicated by (1) injury to the cardiovascular system, as evidenced by electrocardiographic changes, occasionally by transient hypertension, and sometimes by vascular thrombosis, occasionally involving the brain; (2) injury to the liver and to the kidneys; and (3) subcutaneous hemorrhages.

8. Pain in recurrent pancreatitis is produced by two mechanisms:

(*a*) Distention of the biliary pancreatic ducts due to hypertonicity of the sphincter of Oddi—Epigastric and back pain radiating to the right (biliary) and to the left (pancreatic) is either intermittent or continuous; early in the disease it may occur only during an acute attack. Food always produces or aggravates the pain. Section of the sphincter of Oddi abolishes this pain.

(*b*) Inflammatory pain—This occurs during an acute attack and is severe, persistent, and frequently localized in the right upper quadrant where the inflammatory exudate first comes in contact with the parietal peritoneum. The pain lasts from twelve hours to two weeks if the patient is not treated adequately.

9. Other causes of acute pancreatitis—Mumps and possibly other virus diseases may cause inflammation of the pancreas. Alcohol may be a special causative factor in pancreatitis; if so, the mechanism of its action on the pancreas is still unknown.

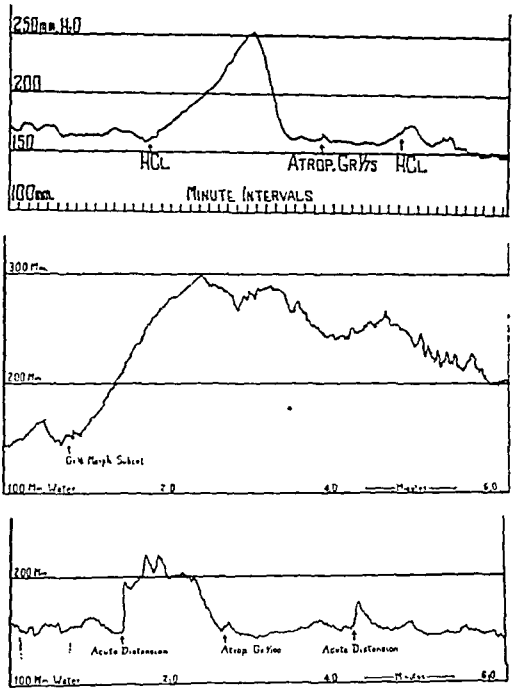


FIG. 3. Kymographic records of the tonus of the human sphincter of Oddi show that acid (locally applied), morphine, and acute distention of the biliary tract produce spasm. Atropine abolishes this reflex to acid and to distention but does not influence the effect of morphine.

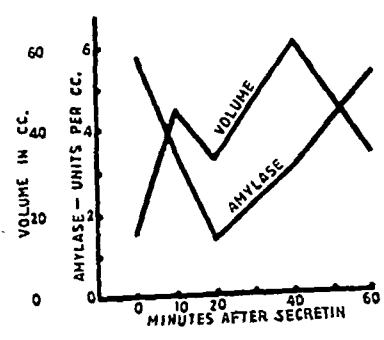
10. Spasm of the human sphincter of Oddi can be produced deliberately by (1) acid, (2) morphine, and (3) acute distention of the biliary tract through a T-tube (Fig. 3).[10] These procedures are useful in cholangiography, since the presence of a common passageway can be demonstrated by visualizing the pancreatic duct. Morphine produces spasm of the duodenal wall as well. It is useful in proving that the one-way valve action of the duodenal wall which prevents duodenal reflux and cholangitis is intact after sphincterotomy. This complication has not occurred in any of our patients after sphincterotomy.

Diagnosis of Pancreatitis

Acute Phase.—A high serum amylase is diagnostic and differentiates pancreatitis from perforated ulcer, acute cholecystitis, intestinal obstruction, mesenteric thrombosis, or cardiac infarct. A low serum amylase does not exclude pancreatitis. A history of repeated attacks or of a previous operation in which pancreatitis was found is of help. Frequently, a diagnosis can be made only by exclusion after the attack has subsided.

Interval Phase.—The diagnosis depends on (1) the history, (2) the type of pain, (3) exclusion of other upper abdominal diseases, (4) evidence of calcification of the pancreas, (5) a diminished secretin test (Fig. 4), and (6) steatorrhea—presence of undigested food in the stools and failure to gain weight on an adequate intake.

Recurrent pancreatitis is the most common cause of postcholecystectomy attacks of pain. A normal secretin test may be found even after a long history of recurrent attacks. It is wise to watch such patients until a high serum amylase is finally discovered during the height of one of the attacks. However, serious loss of weight due to



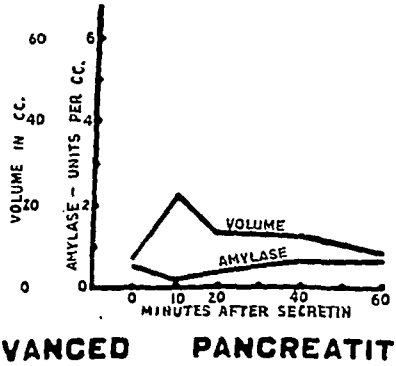


FIG. 4. Typical secretin tests—17 mg. secretin (Lilly) injected intravenously.

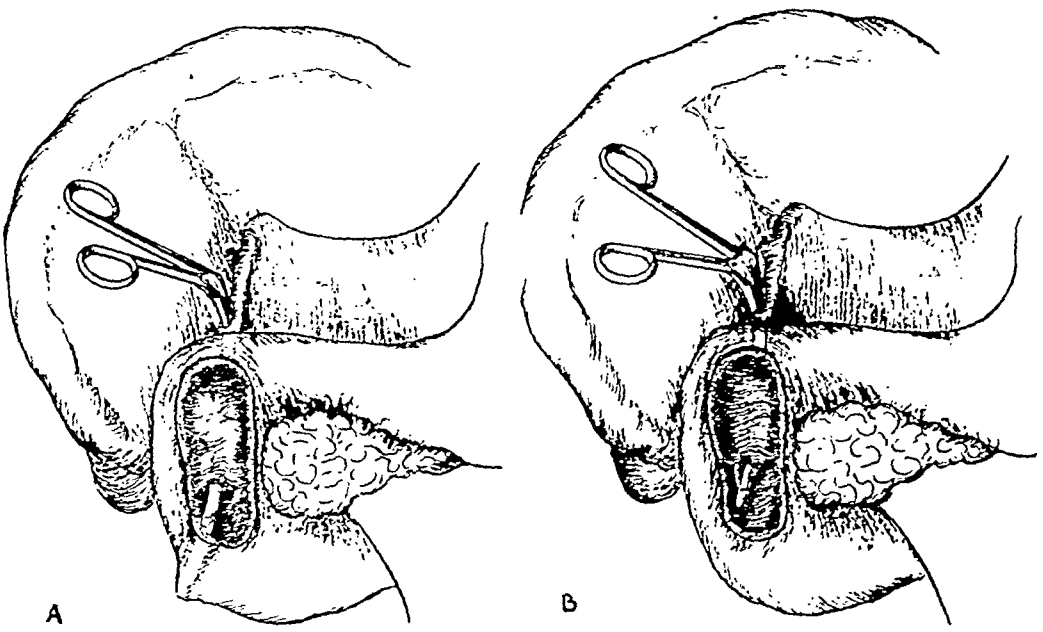


FIG. 5. Endocholedochal sphincterotomy. (A) The sphincterotome is inserted through the common duct into the duodenum until it elevates the anterior duodenal wall. (B) The blade is then opened and the instrument retracted until it hooks the anterior free lip of the papilla. On closure the sphincter of Oddi is sectioned.

fear of pain on eating may force the issue at times.

Treatment of Recurrent Pancreatitis

Acute Phase.—Operation is contraindicated. The treatment is based on the following principles:

1. Shock and dehydration are treated by intravenous blood, saline, glucose, and amino acids.

2. The pancreas is put at rest by stopping all oral feeding. Continuous Wangensteen suction is used to prevent acid from entering the duodenum and so stimulating the pancreas by the formation of secretin. Paralytic ileus, if present, is also controlled. Atropine, $^1/_{150}$ grain every six hours, also helps to reduce the activity of the pancreas.

3. Penicillin is given to prevent infection of the exudate and any necrotic tissue present.

4. Treatment of acute diabetes if present. Emergency blood sugar and carbon dioxide combining power should be tested, even if the urine is sugar free. Large doses of insulin are sometimes required to overcome the acidosis.

5. Rapid subsidence of the pain results from the above measures. At most, small doses of Demerol are required. Morphine is never used.

Surgical Treatment.—When the patient has recovered from the acute attack, careful x-ray studies of the gallbladder, stomach, and duodenum are done. A secretin test to determine external pancreatic secretion and a glucose tolerance curve to exclude the possibility of diabetes are also performed.[11] Serum protein and prothrombin time are checked.

PREOPERATIVE PREPARATION.—A Rehfus tube is passed one hour before operation. Medication consists of Demerol and atropine. General anesthesia is preferred.

OPERATIVE PROCEDURE.—Through a right upper transverse abdominal incision, the cystic duct is dissected out and a rubber strip passed around it to steady it and close off the gallbladder. Cholangiographic studies are carried out through a needle inserted into the cystic duct. In the absence of the gallbladder, the needle is inserted into the common duct. Ten cubic centimeters of one-tenth normal hydrochloric acid are injected through the Rehfus tube to cause spasm of the sphincter of Oddi and so enable the diodrast to enter and visualize the pancreatic duct. The gallbladder is then removed; the common bile duct is opened supraduodenally and the sphincter

of Oddi cut endocholedochally if the sphincterotome enters the duodenum readily (Fig. 5).[12,*] The common duct is then closed and a small rubber tube placed down to it. If the instrument is arrested at the papilla, a 3-mm. incision is made in the anterior duodenal wall over the tip of the instrument. By pushing the anterior duodenal wall dorsally over the tip, the papilla riding on the end of the instrument is made to protrude through the small incision. The sphincter is sectioned under vision. The instrument is then withdrawn and the opening in the duodenal wall closed by a pursestring suture reinforced by another layer.

Postoperative Treatment. — Continuous Wangensteen suction is kept up for two days. The patient is supported by intravenous glucose, saline, and amino acids. Water is given by mouth on the second day, fluids on the third day, and a soft diet (fat free) on the fourth day. The rubber drainage tube is removed on the third day.

A T-tube is placed in the common duct in patients who are to be studied for proof that sphincterotomy (1) destroys the function of the sphincter, (2) prevents pancreatic reflux, and (3) does not permit duodenal reflux by retaining the one-way valve action of the duodenal wall. The T-tube is tied off on the fourth day since the bile flows into the intestine with minimum resistance. On the tenth day, cholangiographic studies are done to confirm the absence of any residual stone, to show that the sphincter does not react to acid, and to prove that the duodenal wall is intact. The next day kymographic tracings are done to confirm these observations.

Case Reports

Case 1 (*Treatment of Severe, Acute Recurrent Pancreatitis with Many Complications*).—F. R. was a twenty-seven-year-old woman with a three-year history of recurrent attacks of severe, midabdominal pain radiating to the epigastrium and left upper quadrant, occurring at varying intervals from daily to monthly, lasting from two hours to one week and accompanied by fever and tenderness in the epigastrium and left upper quadrant. Her last attack started five days before admission to the Third (New York University) Medical Division of Bellevue Hospital, October 9, 1947. Examination at this time revealed jaundice (icteric index 22, bile in urine); paralytic ileus (distended small bowel with fluid levels by roentgen ray); diabetes with acidosis (blood sugar 250 mg. per cent, sugar and acetone in urine, carbon dioxide combining power in blood, 30 volume per cent); hypertension (blood pressure 158/96); albumin in urine; and serum amylase over 300 mg. per cent.

Under treatment by intestinal suction, atropine, intravenous fluids, and insulin, all symptoms disappeared within one week. A cholecystogram three weeks after onset of attack visualized the gallbladder. Roentgenogram of the stomach and duodenum showed normal findings. The patient was transferred to the surgical service on November 1, 1947. A secretin test showed diminished pancreatic function (volume 91 cc., amylase 92 units). At operation on November 7, 1947, a thin-walled gallbladder surrounded by dense adhesions was found; the pancreas was hard, enlarged to at least twice its normal size, and showed areas of old diffuse hemorrhage beneath its capsule. A cholangiogram visualized the pancreatic duct. The common bile duct was very narrow. After cholecystectomy, the duct was opened and a fine probe passed into the duodenum, which was opened over the probe. The sphincter was sectioned and a fine catheter passed up the bile duct and out through the lateral angle of the wound. The duodenum was then closed. The catheter was dislodged accidentally on the fourteenth day, and a cholangiogram, performed immediately afterwards through the fistula, visualized the pancreatic duct. The fistula closed the next day, and the patient was discharged sixteen days after operation.

Histologic examination of a biopsy of the pancreas showed a marked inflammatory reaction and replacement of acinar tissue by extensive fibrosis.

The patient has been asymptomatic since operation, in spite of relapsing to old habits of periodic alcoholic sprees. When last seen one and one-half years after operation she had gained 20 pounds in weight.

Case 2 (*Persistent Severe Postprandial Pain and Loss in Weight Following Cholecystostomy for Acute Pancreatitis*).—C. R. was a twenty-nine-year-old woman with a six-year history of recurrent monthly attacks of severe epigastric pain associated with nausea and vomiting and radiating to both upper quadrants and to the back. Repeated roentgenograms of the gallbladder, stomach, and duodenum showed no abnormality. Exploratory laparotomy at another hospital during an acute attack in 1943 revealed acute pancreatitis. Cholecystostomy and drainage of the pancreas were performed. Drainage from the cholecystostomy site persisted intermittently for the intervening five years and, at one time during the course of this biliary drainage, a small cholesterol stone was extruded. When the fistula closed, the attacks recurred.

She was admitted to this hospital on February 15, 1948. Contrast medium injection of the fistula revealed a small cavity which appeared to hold a radiotranslucent stone. The drainage fluid contained no amylase. A secretin test showed marked reduction in the pancreatic function (total volume 42 cc., total amylase 43 units). At operation on February 25, 1948, the fistula was found to communicate with a markedly fibrotic gallbladder containing a stone impacted in the cystic duct. The common bile duct was at least twice its normal size. The pancreas was hard throughout and moderately enlarged. A cholangiogram visualized the whole pancreatic duct

* Manufactured by the American *Cystoscope* Makers, New York.

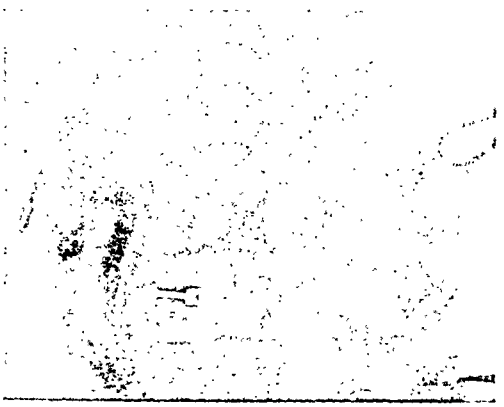


FIG. 6. Operative cholangiogram (Case 2) in which the pancreatic duct (arrow) was visualized as a result of spasm produced by acid.

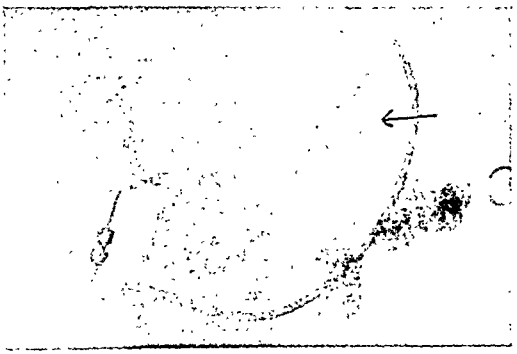


FIG. 7. Operative cholangiogram in patient with calcification of pancreas (Case 3). The distended common bile duct becomes narrow and tortuous in its passage behind the enlarged, fibrosed, and calcified pancreas (arrow).

(Fig. 6). Cholecystectomy and endocholedochal sphincterotomy were performed. The common duct was closed and a small drain, which was removed four days after operation, placed down to it. The patient has been completely symptom free since operation.

Case 3 (*Chronic Pancreatitis with Calcification Resulting from Recurrent Attacks; Previously Treated by Cholecystostomy*).—D. R. W. was a forty-year-old white man with a twelve-year history of attacks of severe epigastric pain radiating to the back and to both upper quadrants, occasionally accompanied by vomiting. The attacks lasted from two hours to two days and at first occurred about every six months, but in the last few years the severe attacks occurred every few weeks and he had had pain after eating almost every day. Ten years ago a diagnosis of perforated ulcer was made, but no operation was done. Between 1940 and 1944, he was admitted to four different military hospitals. Many roentgenograms showed a normal gallbladder and normal stomach and duodenum. He was finally discharged from the Army on February 11, 1944, because of incapacitating pain. No diagnosis was made. Examination by a civilian physician revealed calcification of the pancreas. A cholecystostomy was performed, but by request of the patient the pancreas was not removed. He had no pain as long as the cholecystostomy was functioning. As soon as the drainage tube was removed the attacks of pain recurred. A secretin test done on April 12, 1948, revealed marked impairment of the pancreas (total volume 120 cc., total amylase 65 units).

At operation on April 16, 1948, the pancreas was found to be large and very hard with an irregular, knobby surface. The gallbladder was removed. A cholangiogram showed the common bile duct to be about twice its normal size above the duodenum and very tortuous and narrowed below, owing to its passage behind the fibrosed, enlarged irregular head of the pancreas (Fig. 7). The common duct was opened, the sphincterotome passed into the duodenum, and sphincterotomy done. The common duct was sutured, and a small drain placed down to the line of suture. He has had no pain since his operation, but the function of his pancreas has not improved. Steatorrhea is present. It is controlled by large doses of pancreatin and bile salts. On this regimen he is gaining weight.

Summary and Conclusions

Pancreatitis is a common disease frequently undiagnosed because routine serum amylase determinations are not done in all acute upper abdominal conditions. Frequent use of the secretion test would also increase the number of recognized cases, especially in the group diagnosed as postcholecystectomy syndrome or biliary dyskinesia.

The main causative factor is reflux of bile into the pancreas as a result of spasm of the sphincter of Oddi. Section of this sphincter prevents further biliary reflux and arrests the disease. Preservation of the duodenal musculature surrounding the bile duct prevents ascending cholangitis.

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Discussion

John J. Morton, M.D., *Rochester.*—Acute pancreatitis must be considered as a possibility in patients complaining of severe epigastric pain. Even the most experienced clinicians cannot with certainty make a differential diagnosis on such a patient without the assistance of laboratory procedures. Attempts to rule out perforated ulcer should be carried out by x-ray examination. Fulminating biliary tract infection is difficult to evaluate, as 60 per cent of these patients show icterus. Electrocardiographic changes may be noted suggestive of myocardial infarction or coronary thrombosis, but the upper abdominal peritoneal irritation and elevated blood amylase establish the diagnosis of acute pancreatitis. In fact, until we had Somogyi's rapid amylase test we were in the dark on many of these acute cases. The result was surgical exploration with a high mortality. The serum amylase test should now be routine for every acute abdominal emergency. The test takes twenty to thirty minutes. If the serum amylase is over 200, it is beyond the normal range and points strongly to the pancreas. Once the diagnosis is established, watchful waiting should be the rule until the process has subsided, usually within one week. Then, study of the biliary tract and operation will prevent recurrence of acute pancreatic episodes in most instances. These operations usually mean cholecystectomy and exploration of the common duct because small stones passing down the duct and blocking the papilla cause reflux of bile into the pancreatic duct in most cases. This is either due to the 10 per cent common channel or to spasm of the sphincter of Oddi. Bakes dilators should be used to be sure that the sphincter has been well stretched.

If operation is not done following subsidence of an acute pancreatic attack, the patient may have another attack later; and some go on having attack after attack until something is done to prevent them.

Elman recommends nitroglycerin and gives his patients 1/100 grain tablets to help abort attacks by relaxing the sphincter of Oddi at the start.[1,2] Gage advocates bilateral splanchnic block to relieve the spasm in the acute attack, repeating if necessary.[3] Others have claimed relief by paravertebral block in the eighth to tenth dorsal segments or by vagotomy.[4] Leriche in 1934 records a case in which he made a direct incision into the pancreatic duct and drained it for chronic pancreatitis.[5] Twenty years later he repaired the hernia in the abdominal wall. He wrote that this "was the fortunate ignorance of youth—today, I would take out the gallbladder and drain." In a recurrent attack of pancreatitis in a badly diseased pancreas, Caleb Smith, and Pearse decided to tie off the pancreatic channel so that reflux could not occur.[6] This resulted in freedom from attacks.

The direct attack on the sphincter is rational. Its spasm is undoubtedly a factor of importance. The approach through the common duct is logical, although direct attack by a transduodenal operation might prove more accurate.

The clinician must be able to differentiate between the acute edematous pancreatitis and the hemorrhagic pancreatic necrosis. The former calls for delay and subsidence of the attack, the latter for action, since delay is fatal. Only close clinical observation and judgment will make it possible to tell when the patient remains ill and does not respond as he should to the edematous type. Fine states that when the amylase reading is high (2,000 or over), he operates, but this has not been our experience.[7] Some of the highest readings have quickly subsided to normal within a few days, and the patient gets well.

Many patients who have severe attacks sustain pancreatic damage which shows up later. If followed long enough, a definite proportion will show diabetes. Shumacker found that, of those surviving, from 3 to 10 per cent had diabetes.[8] Repeated recurring attacks should be avoided in order to spare all the pancreatic tissue possible.

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MATERNAL MORTALITY RATES DROP AGAIN FOR 1948

A continuation of the downward trend in maternal mortality shown by rates of 1947 is indicated by provisional figures for 1948 collected from state public health agencies by the American Medical Association.

The United States undoubtedly will show a rate of not more than 1.2 maternal deaths per thousand live births in 1948, a drop of 0.1 from the previous year, according to an editorial in the October 1 issue of the *Journal of the American Medical Association.*

Since 1933, the United States has made tremendous progress, with the rate declining from 6.2 to 1.2 in fifteen years; in 1947 the rates for whites and nonwhites were 4.5 (5.6 — 1.1) and 6.4 (9.7 — 3.3) lower than in 1933. The spread between the highest and lowest state rates decreased from 7.2 (11.5 — 4.3) in 1933 to 2.3 (2.7 — 0.4) in 1948. More important than the decline for the whole nation is the fact that the highest state rate in 1948 was 2.7, which was less than two thirds of the rate, 4.3 for the best state in 1933.

To the extent that this one vital statistic can be considered an index of health, the charge that rapid improvement in health has been limited to the wealthier sections of the country is clearly and emphatically refuted.

DIABETES CONTROL IN THE PUBLIC HEALTH PROGRAM

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THE problem of diabetes mellitus is a serious matter. Its relationship to the occurrence of cardiovascular disease, particularly arteriosclerosis, blindness, and other diseases including the nephritides demands that more attention be given to it by clinicians, health officers, and research workers.

This presentation attempts to describe one concept of the responsibility of the community for assistance in the control of diabetes mellitus. A practical plan of action is now being demonstrated.

What is meant by the statement that diabetes is a public health problem?[1] What is public health? The general concept of public health today is that it deals with the prevention of disease, the prolongation of life, and the promotion of mental and physical efficiency through organized community effort. What is diabetes control? Before the discovery of insulin, the average life expectancy of a child with diabetes was about two years with the best treatment known.[2] A diabetic adult lived on an average about eight years. It was difficult to manage diabetes in the individual clinically, and starvation diets provided the major control measures. Public health measures were not adaptable to the diabetes problem at that time.

Significant changes have occurred in comparatively recent years. With advances in insulin and diet therapy, the juvenile diabetic can now look forward to an ever-increasing life span. If the adult diabetic today is recognized early and he gets all the benefits of our present medical knowledge, he may expect to have a longevity which approaches that of the average American citizen of his age. Early detection improves the prognosis and offers encouragement for the prevention of complications. Prompt and aggressive therapy by a competent physician usually foreshadows successful treatment and a happy life. The proper psychologic presentation of the treatment pattern encourages the individual and stimulates good mental adjustment to the required changes in habits. This, together with comprehensive education of the diabetic individual in feasible methods of self-management, promotes both his mental and physical well-being.

Progressively more encouraging results are being obtained in the reduction of deaths and the prevention of illness due to acute infectious diseases, particularly in the younger age groups. Public health programs, however, have given very little, if any, attention to diseases of a chronic nature affecting the older age groups. Conditions more commonly found in middle age and later adult life, such as cancer, heart disease, and diabetes, have been showing a steady increase in morbidity and mortality year by year.

There are significant factors which may be responsible for this increase:

1. Life expectancy has been increased from 49.2 years in 1900 to 65.8 in 1945. This means that comparatively large numbers of people will reach an age at which they are particularly susceptible to diseases such as cancer, heart disease, and diabetes.
2. Better diagnostic measures are available, and their use has become more general.
3. There is reason to believe that obesity or overnutrition in relation to body needs may have brought a true increase in diabetes.

It is reasonable to assume that one reason for the lack of success in the prevention and control of diseases among older age groups is due to the fact that little has been done by organized community effort and health departments in the promotion of adult hygiene.

Before considering whether organized community effort can give assistance, it may be well to review briefly some of the data about the prevalence of diabetes.

In 1947, a study was made in Oxford, Massachusetts, by the Diabetes Section of the Public Health Service.[3] Analyses of both blood and urine for sugar were made on 70.6 per cent of the entire population of 5,000. A total of 70 cases of diabetes was found. Forty of these cases consisted of previously known diabetes. The additional 30 cases were discovered during the survey. The prevalence of diabetes was 2 per cent of those tested. Authorities in the American Diabetes Association have applied these figures to the whole population of the U.S., estimating that there are probably more than two million people in our country with diabetes, half of them known and half unknown.

By 1985, it is estimated that the population of the nation will be at a maximum. It is predicted that by that time the general population will be increased by only 22 per cent, whereas the diabetic population will be increased about 75 per cent.[4]

Presented, by invitation, at the 143rd Annual Meeting of the Medical Society of the State of New York, Buffalo, Section on Public Health, Hygiene, and Sanitation, May 5, 1949.

From a study of Joslin's patients who died between 1936 and 1943, it was found that 64 per cent of individuals known to have diabetes were classified as having died from it.[5] Eleven per cent of the individuals were classified as having died from some concurrent cause with diabetes as a contributory cause, and in 24 per cent of those known to have diabetes it was not mentioned on the death certificates. Altshuler reported similarly that only 58 per cent of a group of 142 known diabetics at death were recorded as having died of diabetes.[6]

The past trend in the death rate for diabetes is difficult to evaluate because the procedure used for classifying diabetes deaths for official statistics did not take into account the physician's opinion of the importance of diabetes relative to other concomitant diseases and conditions. Starting with 1949, it is expected that the recorded statistics will more nearly reflect medical opinion of diabetes as a cause of death. However, diabetes mortality statistics for 1949 and later years will not be comparable with those of earlier years.

For the above reasons conclusions based upon mortality are not given much attention in this discussion. It is the great prevalence of the disease and the seriousness of the increasing socio-economic problem of its complications to which emphasis is given.

In considering the matter of health and disease the question quite naturally arises as to when a health problem becomes one with which public health agencies should cope. It is believed that a health problem becomes a public health responsibility, when, because of its nature and extent, it is more amenable to solution by organized community action. There should be practical and easily available methods and procedures applicable through community action to the solution of that particular problem. The communicable diseases and such other activities as vital statistics, health education, and sanitation fit readily into this concept of public health. Questions arise, however, as to the extent to which public health programs should act in relation to problems of the sick individual.

Dr. Harry Mustard has this to say regarding the subject:

> One wealthy individual with diabetes, or a thousand pregnant women able to pay their way, do not necessitate any organized action for their care, and their problems would not, therefore, fall within the limits of the generally accepted concept of a public health problem. But a hundred diabetics uneducated as to the care of their feet, unable to buy insulin, or to pay a physician, or a thousand maternity cases with no funds for medical care, would necessitate organized action, whether by hospitals, by health departments, or by a privately operated clinic. The real question at issue, then, is not so much whether the person is well or ill, or even in the last analysis, whether rich or poor—for the rich use the sewerage system—but rather when, or if, a given problem of health and disease can no longer be solved by the unassisted effort of the citizen and the uncoordinated resources of the community.[7]

If we are convinced that most diabetics are (1) being detected reasonably soon after they develop the disease, (2) receiving the kind and amount of education which makes it possible for them to cooperate with their private physician in the control of their disease, and (3) receiving adequate medical care, then we have no public health problem. If, however, practicing physicians, health officials, and the public agree that these are needs in which organized community effort should give assistance, we are faced with the challenge of developing a community program.

How serious is diabetes as a public health problem? It probably is not possible to measure exactly the seriousness of a public health problem. However, criteria have been set forth which enable us to evaluate the problem relatively.[7] These criteria are discussed in relation to diabetes.

First, the median annual mortality rate is usually considered. The data are incomplete and confusing so far as reported deaths are concerned. For the country as a whole in 1946, diabetes was reported as causing one third more deaths among white women than tuberculosis. In 1920, according to recorded data, diabetes caused 1.2 per cent of deaths from all causes, and in 1940 this proportion had more than doubled—2.5 per cent of the total deaths. In other words, between 1920 and 1940 the rate of increase of diabetes as a cause of death was second only to heart disease. It is noteworthy too that a significant amount of arteriosclerotic heart disease is probably causally related to diabetes mellitus.

Second, consider the median annual morbidity rate. Reporting of diabetes is not required, but it has been estimated that new cases currently number at least 50,000 annually.[4] When the probabilities for each sex-age group are applied to the 1946 population of the United States, it is found that about 4,125,000 persons, or 2.9 per cent of this population, will eventually become diabetic.

As we have said, present therapy gives the juvenile diabetic more hope for an ever-increasing life span. Also, as noted before, the adult diabetic, recognized early and receiving the benefits of our present medical knowledge, has a life expectancy which approaches that of the average American citizen of his age. This represents

real progress in treatment and is encouraging for the diabetic; however, no cure is known for diabetes. That means his problem is with him for a long period of time—a most important factor in determining the seriousness of diabetes as a public health problem.

To be dealt with also, are the all too frequently occurring disabling complications of long duration diabetes, such as arteriosclerosis, neuropathy, retinopathy, and intercapillary glomerulosclerosis.

Third, we should take cognizance of the age group in which the forces of mortality and morbidity express themselves.

It has been stated by Mustard that, from a biologic and even from a sociologic point of view, deaths in old persons are not so serious a national problem as the same number of deaths in young adults.[1] He further states, however, that to work out a formula establishing relative values of life at various ages would involve arbitrary decisions so numerous as to invalidate conclusions.

Diabetes, however, is by no means a disease confined to the aged. Therefore, when the criteria just discussed are applied to diabetes, it may be safely stated that it is a public health problem of a magnitude sufficient to warrant our serious attention.

With reference to age distribution of diabetes, Joslin points out that discussions of prevalence and incidence are misleading.[2] In analyzing over 10,000 diabetes case records for age-of-onset of the disease, he reveals that about one fourth of the cases became diabetic before thirty years of age and about one half between the ages of thirty and fifty-nine years. These findings led him to conclude that "diabetes is not an old age disease" and that there is "a declining susceptibility in the latter decades of life."

Factors in the Makeup of the Public Health Program

It would seem logical for health departments to balance their programs of prevention and control in relation to the seriousness of the various diseases. However, this is not always possible, because often the scientific knowledge necessary for prevention and control of the condition is not yet available or is not applicable to the problem. In the case of diabetes, however, we do have sufficient knowledge to launch a program which would aid substantially in the prevention and control of the disease.

The problem is not too disseminated or masked as to make detection of early and potential cases impractical. There is a favorable attitude on the part of the public. The medical profession, particularly through the magnanimous work of the American Diabetes Association, is sponsoring and encouraging the fullest possible application of scientific knowledge concerning the disease. The American Diabetes Association is energetically stimulating practicing physicians to become awakened to their own responsibility in this public health problem.

The cost of undertaking a continuing comprehensive diabetes control program is not excessive. It is believed that the cost will be lowest and the success greatest where the cooperation is closest between medical society, local health agencies, and the community.

From the public health point of view, prevention is the most important aspect of the problem. In diabetes preventive measures which lend themselves to practical application by the public are provided by our knowledge of the common factor of hereditary susceptibility, the high incidence of obesity often found as a forerunner, and the frequency with which acute infection or exacerbation of chronic infection "lights up" the pathologic process.

Even though the exact causative agent or the specific host factor responsible for diabetes is not known, early detection is a preventive measure and it is practical on a community-wide basis.

It is believed that relatively simple screening tests will find most of those individuals in the population who are most likely to have undetected mild or early diabetes. Examination of both blood and urine for sugar between one and two hours postprandially will result in the most efficient detection of mild diabetics. Either blood analysis or urinalysis alone will yield a significant number of unknown diabetics, although evidence to date points to the greater efficiency of blood sugar screening in detection programs.

The ideal detection center is in the private physician's office. It is unfortunate, however, that the average individual does not go to his physician until signs and symptoms of disease have existed long enough to produce discomfort or pain. Methods used in mass chest x-ray studies have demonstrated beyond doubt the important part public health can play in uncovering early, asymptomatic cases of disease at a stage most amenable to successful treatment. The practicality and advisability of public health departments and organized community efforts supplementing the efforts of private physicians in mass diabetes detection programs can hardly be doubted.

There is knowledge available which the diabetic patient should acquire in order to cooperate in the control of his condition. This should be presented in a manner conducive to the satisfactory mental and physical adjustments to a restricted regime which must be made.

It is apparent then, that the present state of medical and health knowledge permits an active community program in diabetes control. Therefore, it is believed that the first requirement for a practical public health program must be a sincere cooperative understanding and working agreement between private physicians (the medical society), public health officials, and representatives of the organized community. Then the functions of the health department in the control of diabetes may properly be:

1. Detection of new cases of diabetes by screening large groups of the population with urine and blood tests for sugar. A case finding program should be continually pursued. Of great importance is the prompt referral to their private physicians of diabetes suspects with follow-up to see that the cases understand the importance of obtaining medical supervision and care.

2. Supplementation when needed in the education of the diabetic patient concerning the basic principles of diabetes therapy in order that he may cooperate fully with his physician in the complete control of his condition.

3. Education of the general public concerning the early symptoms of the disease so that the person with incipient diabetes will seek advice from his physician early in the course of his illness.

The principles of a cooperative public health program in diabetes control were agreed upon by the American Diabetes Association and the Diabetes Branch of the Public Health Service in 1946. The primary objective outlined was to seek prevention of illness and disability through education and early detection.[8] With reference to planning preventive measures, Dr. Russell M. Wilder says:

> The importance of early detection of diabetes cannot be overemphasized. Treatment now is usually postponed beyond the time when such restoration of pancreatic island functions can be expected. Intensive management of diabetes offers greatest promise when it can be instituted at the very onset of the disease. However, this involves detecting the disease on its incipience, which rarely has been possible. For this reason all health examinations should include some screening tests for diabetes with a careful follow-up of the diabetic suspects they disclose. An examination such as this made every year in all schools, colleges, and other institutions, also in all business firms and factories, would contribute greatly to the public health. For this reason also, the present active interest of the United States Public Health Service in undertaking diabetic surveys of communities as in Oxford, Massachusetts, and in Jacksonville, Florida, should receive all possible support from practitioners of medicine and specialists in diabetes.[9]

There is experimental and clinical evidence to demonstrate the value of early diagnosis of diabetes. The generally accepted theory of the pathologic processes is that there is insufficient production of insulin resulting from a decreased functional capacity of the islands of Langerhans or an increased inhibition of the action of insulin in the body. Investigators have provided evidence in experimental animals that the pancreatic islet cells have a capacity for regeneration.[10-12] In diabetes, the pathologic changes in the pancreas are reversible if corrective measures are taken early enough. Before the discovery of insulin it was the severe diabetic who showed the serious complications of the disease—acidosis and diabetic coma—from which more than half of the cases died. Today, the long duration case of diabetes is prone to develop arteriosclerotic and other degenerative complications prematurely. The mild, undetected diabetic is usually overweight and uninformed. He is prone to develop prematurely the vascular pathology which may produce arteriosclerotic changes leading to invalidism.

The Oxford, Massachusetts, survey of a general population group revealed that early case finding of diabetes could be achieved on a mass basis.[3] Table 1 shows the comparison of the value of case-finding efforts in a general population group such as Oxford, Massachusetts, with a similar study using the same diagnostic procedures in bleod relatives of known diabetics in Jacksonville, Florida. The testing of 753 relatives brought to light 31 previously unknown diabetics, but it required the testing of 3,516 people in a general population group to yield approximately the same number of new cases. You will note that 30 new diabetics were discovered from a group of 558 relatives between the ages of fifteen and seventy-four

TABLE 1.—Results of Diabetes Testing Program Among General Population in Oxford, Massachusetts, and Among Relatives of Diabetics in Jacksonville, Florida

	Oxford, Mass. General Population			Jacksonville, Fla. Relatives of Diabetics		
	Total Tested	Diabetes Mellitus Number	Diabetes Mellitus Per Cent	Total Tested	Diabetes Mellitus Number	Diabetes Mellitus Per Cent
Age Group						
Total all ages	3,516	30	0.9	753	31	4.1
Under 15	931	0	.0	192	0	.0
15–44	1,616	5	0.3	401	13	3.2
45–74	898	20	2.2	157	17	10.8
75 and over	69	5	7.2	3	1	...
Total 15–74	2,514	25	1.0	558	30	5.4

TABLE 2.—COMPARISON OF PERCENTAGE AGE DISTRIBUTION OF TWO STUDY GROUPS, OXFORD (GENERAL) AND JACKSONVILLE (RELATIVES) WITH THE POPULATION OF THE UNITED STATES

Population	Under 15	15-24	25-34	35-44	45-54	55-64	65-74	75 and Over	Total
Oxford General Group, 1945	26.5	14.8	17.2	13.9	11.7	8.4	5.5	2.0	100.0
Jacksonville Relatives Group, 1948	25.5	17.3	17.8	18.2	9.3	7.8	3.7	0.4	100.0
United States, 1945	25.2	17.0	16.1	11.0	11.8	8.7	5.0	2.2	100.0

years. This is 5.4 per cent of new cases detected in a study of blood relatives of diabetics as compared with approximately 1 per cent in a general population group of 2,514 people in the same age group in Oxford, Massachusetts. The table shows for the testing of relatives that the number of diabetics in the age groups fifteen to forty-four is 3.2 per cent and from forty-five to seventy-four years it is 10.8 per cent. In the general population group these percentages for the same age groups were 0.3 and 2.2 per cent, respectively. No new cases were observed under fifteen years of age in either study. It is noted that out of 69 people over seventy-five years of age in Oxford, five persons, or about 7.2 per cent, were discovered as diabetic in comparison with one case out of three among relatives of the same age group in Jacksonville, Florida. The latter figures here are, of course, too small for reliable comparison.

In the comparison of percentage age distribution of the two groups in Table 2, you will note that the relatives tested in Jacksonville comprise a somewhat younger group than that of the general population of the United States. In the Oxford studies the age distribution much more closely approached the national census figures. Although not shown in the tables, it is noteworthy that in Oxford it was found that the disease was almost as prevalent among men as among women, even more prevalent among men in the newly discovered diabetics, that is, 1.0 per cent as compared with 0.8 per cent, respectively.

Because diabetes found in an early stage is much easier to control, it seems worth while to continue studies with younger age groups in an attempt to define the prediabetic or potential diabetic state, particularly in children and young adults.

It is noteworthy to comment on the preliminary results of one particular case-finding effort in the general population in Brookline, Massachusetts. This was incidental to, but ran concurrently with, a tuberculosis case finding program. Out of approximately 6,000 adults who responded for chest x-rays ten new active cases of tuberculosis were discovered, a rate of 0.17 per cent. At the same time that the people were having their x-rays, the diabetes demonstration unit offered tests of urine and blood for sugar, and 2,100 of the 6,000 were given these tests. Of this number, 18 new diabetics were discovered, or about 0.88 per cent (five times the discovery rate of tuberculosis). It is of interest that in this same community in 1947 there were three reported deaths from tuberculosis and 25 reported deaths from diabetes mellitus.

In all of the diabetes detection work in which assistance is given by the Public Health Service, every newly discovered or suspected case is referred promptly to the family physician for further study, diagnosis, and treatment. Cases with an abnormal finding on first examination are rechecked for confirmation before referral. All confirmed abnormal laboratory findings are sent directly to the private physician designated by the person examined. A general statement indicating whether the tests are "normal" or whether further study is needed is mailed to each person examined.

The operation of that part of the public health program which includes the education of the patient and his family has been very gratifying. There probably is no other disease in which the education of the patient plays a more important role in producing mental and physical adjustment, happiness, and successful treatment than in diabetes. Regular medical supervision is necessary, but the patient must carry out his own treatment from day to day, and the progress of his case depends to a great extent upon the manner in which he takes care of himself. Beyond any doubt, the most logical and best person to give the diabetic patient the necessary instruction for living intelligently with his diabetes is the private physician, either personally or with the assistance of his nurse and dietitian.

Unfortunately, not many physicians have the time or the funds to provide such facilities. Dr. Warvel of Indianapolis says, "We are quite convinced that very little can be learned by routine office calls by the diabetic to the physician's office unless he has had previous hospitalization. Few doctors have time to spend an hour or more at each office visit with these patients to teach them the basic principles of their disease."[13]

There seems to be little doubt in the minds of diabetes specialists that the well-informed diabetic patient has fewer complications, is more cooperative and happier, and usually lives longer. On this premise a school or instruction class for

TABLE 3.—REFERRALS TO HEALTH DEPARTMENT INSTRUCTION CLASS IN DIABETES MELLITUS (JACKSONVILLE, FLORIDA, UNIT OF DIABETES SECTION U.S. PUBLIC HEALTH SERVICE)

Source of Referral	White	Negro	Unknown	Total
Private physician 47 in Duval County 3 outside area	93	28	..	121
County hospital charity clinic	34	89	..	123
Self (cleared with family doctor)	5	5	..	10
Friends and relatives	..	..	70	70
Grand Total	132	122	70	324

diabetics was organized over a year ago in Jacksonville, Florida. An advisory committee from the county medical society assisted the staff of the diabetes demonstration unit in planning the details of instruction. During the first year 324 persons attended the classes, 70 of whom were friends or relatives of diabetics.

In Table 3, a preliminary analysis of the class attendance records in the school for diabetics in Florida reveals that 123 patients have been referred to the instruction class by the diabetes clinic of the county hospital. Of these, 34 were white, and 89 were Negro. You will note that 121 patients, of whom 93 were white and 28 Negro, were referred to this class of instruction by private physicians. Forty-seven different physicians within Duval County and three physicians outside the immediate area made these 121 referrals. Many physicians have expressed their appreciation of this facility, saying it has proved of practical benefit to them and their patients. They have found that education by this medium results in a more cooperative, happier, and better controlled patient and one who is more regular in returning to his doctor for check-ups. The instruction in this school for diabetics is given by the professional members of the diabetes demonstration unit in Jacksonville. This unit is composed of a medical officer, a public health nurse, a nutritionist, and two technicians, all specially trained in diabetes work. The advisory committee from the local medical society works closely with this group, advising and consulting, as well as reviewing the methods and contents of the instruction classes. A series of six two-hour classes are given. Special night classes have been added at the request of those who are unable to attend during the day.

To further the education of the patient a monthly newsletter is compiled through the efforts of the medical director of the diabetes unit, his professional staff, and the medical advisory committee. This letter is sent to all diabetics and their relatives who are interested in receiving current information about diabetes.

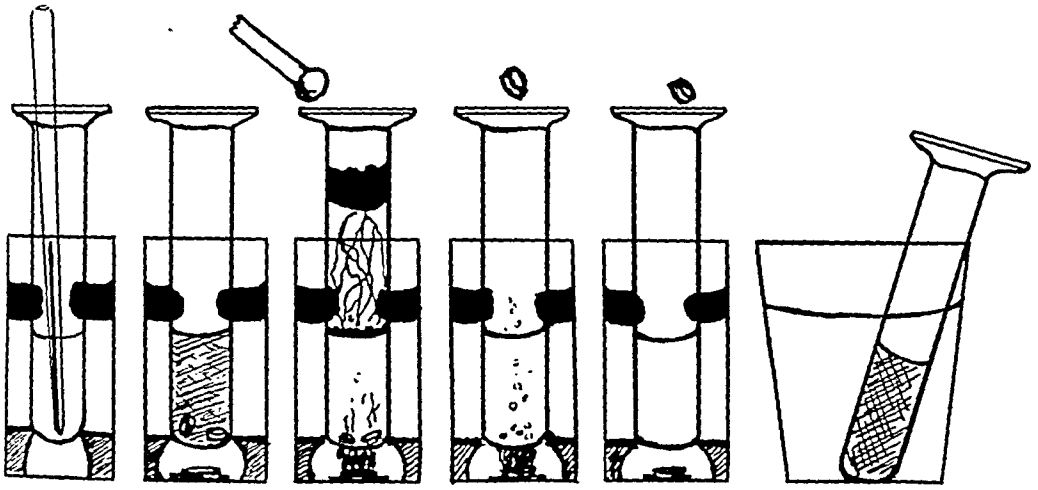
The diabetes demonstration control units in Brookline, Massachusetts, and Jacksonville, Florida, function as a part of the local health departments. Voluntary health agencies such as the visiting nurses association are assisting to a great extent with the program. Every phase is developed with the advice, consultation, and close cooperation of the medical advisory committee from the local medical society. In Brookline, Massachusetts, a lay advisory committee assists the health department and the medical advisory committee in the promotion and planning of the program.

In the epidemiologic phase of the program, analyses of data are being carried out in order to learn more about the behavior of diabetes in the general population as compared with the characteristics it usually shows among clinical or hospital groups.

Many of the research objectives in diabetes are being administered through another division of the Public Health Service. Among other diseases of metabolism and endocrinology, diabetes is one of the important fields of research assisted through grants-in-aid recommended by the Metabolism and Endocrinology Study Section of the Division of Research Grants and Fellowships of the National Institutes of Health.

A "meal planning" booklet is being developed through the cooperation of the Education Committee of the American Diabetes Association, the American Dietetic Association, and the Diabetes Section of the Public Health Service. This booklet will give the consensus of experts on the basic food values and how to use them in planning meals for the diabetic.

One very important objective of our diabetes program is the development of simplified detection and screening procedures. A cheap, quick, and simple screening method for determining blood glucose has been introduced.[14] Rough drawings of the equipment and procedure appear in Fig. 1. By this method it is concluded in five minutes whether a blood sugar is above or below a predetermined screening level. You will note the procedure is carried out by filling a test tube with tap water to the 5 ml. mark; 0.1 ml. of capillary blood from the finger tip or ear lobe is collected by means of a capillary pipette and added to the tap water. Tablet I, containing zinc sulfate and sodium chloride, and tablet II, containing potassium iodide and sodium bicarbonate, are added to the solution which is boiled by lighting methenamine heating tablets as shown in the diagram. The blood proteins are coagulated by the zinc hydroxide formed, and, as the solution boils, the cake of protein is pushed upward in the test tube by the steam. This protein cake can be removed with the glass scoop when it reaches the funnel-shaped mouth, obviating the necessity for filtering.



1. 0.1 ml. of blood is introduced into 5 cc. of tap water.
2. Tablet 1 ($ZnSO_4$,NaCl) and Tablet 2 (KI,$NaHCO_3$) added to the solution of blood and water.
3. Heating tablet lighted, blood proteins coagulated forming a cake, caked protein pushed to the flared mouth of the tube, protein removed with scoop.
4. Tablet 3 ($K_3[Fe(CN)_6]$, Na_2CO_3, Starch, NaCl) added to the deproteinized solution, another heating tablet added and lighted.
5. Tablet 4 (tartaric acid, $ZnSO_4 \cdot 7H_2O$, Starch) added to the cooling solution.
6. Tube immersed in a container of cold water.

FIG. 1. Diagram of simplified detection and screening procedure.

Then tablet 3, containing potassium ferricyanide, sodium chloride, and starch, is added and the solution boiled again. At the end of the second heating period tablet 4, containing tartaric acid, zinc sulfate, and starch, is added, and the test tube is immersed immediately in cold water. When cold the solution will be either blue, due to the formation of the starch iodine complex, or colorless if no iodine is present. In other words, if solution is blue, the blood sugar is below the predetermined level, but, if colorless, it is above and merits further investigation.

In surveys our experience so far indicates that knowledge of the actual blood sugar value is less important in screening work than noting whether or not a certain level is exceeded. While certain technicalities at first prevented the use of the screening test for mass surveys, revisions have been made, and the test is now considered satisfactory for individual or mass screening. The test is useful wherever a quick laboratory screening service is needed and routine standard laboratory facilities are not available. It is particularly applicable to use for screening by the general practitioner or in a small office laboratory. Further work on diagnostic methodology is in progress.

A certain number of false positives will necessarily be encountered owing to the critical screening levels at which the values are set. It is not within the scope of the proposed procedure to replace clinical judgment required to establish a diagnosis. A positive screening test creates a suspicion index and recommends more elaborate study. The screening test does not make a diagnosis.

There is now available a machine, the Hewson Clinitron, which performs this type of screening test at a top capacity of two tests per minute.

Summary

1. A discussion is presented of the reasons why diabetes is believed to constitute a public health problem. A practical program for solution is described as possible through cooperation between physician, health agency, and organized community effort.

2. Blood and urine testing programs among 736 blood relatives of known diabetics in Jacksonville, Florida, have revealed a discovery rate of 5.4 per cent in the age group fifteen to seventy-four years, about five times that obtained in work with a general population group in Oxford, Massachusetts.

3. Many busy practitioners of medicine are using the school for diabetics in the Diabetics Demonstration Unit in Jacksonville, Florida, to provide instruction for their patients who have diabetes. They have found that a thorough understanding of the disease by the patient results in a more cooperative patient who is healthier and happier and who may expect to live longer and have fewer complications.

4. All plans for the diabetes demonstration control units are formulated with the help and advice of a committee of the local medical society. These plans are carried out as a function of the local health department with the cooperation and assistance of voluntary health agencies, such as the visiting nurses association.

5. A quick, new screening method for blood glucose determination, thought to be particularly useful to the general practitioner and for mass surveys, is described and illustrated.

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Discussion

I. Jay Brightman, M.D., *Albany.*—This scholarly presentation by Dr. Wilkerson leaves no doubt as to why his name is now so intimately associated with the new movement in the public health field, the control of diabetes. The programs conducted by the United States Public Health Service in Massachusetts and Florida have clearly demonstrated that the welfare of the diabetic patient can best be served by a close partnership between the private physician and the public health agency.

The general pattern of the public health approach to the control of disease is well applicable to diabetes. The last few years have seen the development of the necessary refinements required to fit diabetes upon the public health lathe. The mass survey for diabetes, utilizing the speedier biochemical tests, may now be accepted as a proved case-finding weapon comparable to that applied to tuberculosis. The fact that one third of the patients undergoing routine chest examinations voluntarily submitted to blood and urine tests indicates that the tests for diabetes are not particularly objectional or painful. Possibly with a more intensive educational program, this percentage of volunteers may be significantly increased. From the epidemiologic viewpoint, the investigations made upon the blood relatives of known diabetics, with the resulting fivefold increase in fruitfulness, are particularly significant. The Brookline approach was really rifle-shooting compared to the shotgun approach made in Oxford. The Oxford type of mass survey might be expected to pay increased dividends if conducted among racial and age groups in which the prevalence of diabetes is known to be higher than in the general population.

If the prevalence of diabetes by age group, as found in the Oxford survey, is applied to New York, it may be estimated that there are about 240,000 diabetics in this State, of whom only approximately half have been diagnosed. The diagnosed diabetic, particularly if discovered early, has a good possibility of making a satisfactory adjustment to his disease, of having a normal life expectancy, and of enjoying life with few restrictions. The undiagnosed diabetic should have the same opportunities. We must determine and correct the reason for the condition remaining unknown, whether it be ignorance, neglect, or lack of adequate facilities. Public health education must not only advise the patient with suggestive symptoms to seek examination but must encourage all persons to go through a periodic health check-up so that asymptomatic disease of any type may be detected.

A complete program for diabetes might well include services to assist the private physician in the management of his case. Group courses designed to interpret to the patients the recommendations of their physicians would certainly promote a more careful adherence to dietary and insulin regimes. Such services are well within the province of the bureaus of nutrition of State and local health departments. Teaching days for physicians, two- or three-day refresher courses, and group consultation clinics conducted in the more rural areas by specialists coming from the medical centers would follow closely the type of program already operating for other diseases. The pattern is there; the tools have been refined, the potentialities are great. There remains the question of the funds and, even more important, the qualified personnel necessary to administer such a program.

The number of diabetics in the population is increasing and will continue to increase as the control of this disease improves. H. G. Wells, a diabetic himself, suggested that the excellent training a well-controlled diabetic receives and the excellent discipline to which he subjects himself might well be reflected in his nonmedical activities and that possibly this might be advantageous. Addressing fellow diabetics back in 1935, Mr. Wells stated, "We are a high and austere cult. Our characters are strengthened by a perpetual self-control; we have learned to detest the pasty and saccharine in thought, word, and deed. We shall be plain and fine with each other. Formerly diabetics died, but now I shall begin to look for the diabetic influence in every aspect of life, in art, science, conduct, a new delicate strength, a restraint and a clearness. Am I writing nonsense? Not altogether. For my own part I have certainly found diabetes an invigorating diathesis."

Nonsense or not, the diabetic patient and the world of which he is part are indebted to Dr. Wilkerson and the Diabetes Section of the U.S. Public Health Service for their pioneering work in this field.

GENITOURINARY SYMPTOMS DUE TO EXTRINSIC DISEASE*

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THE differential diagnosis between certain urinary tract lesions and disease of other viscera frequently presents a problem which, in the final analysis, must be solved by the urologist. The kidney and the gastrointestinal tract have a common nerve supply derived from the solar plexus. Thus, it is apparent that renal or ureteral pain may simulate disease of practically any abdominal or pelvic organ, and it is equally apparent that the reverse may also be true.

Referred pain, especially to the back, may be due to disease of almost any intra-abdominal organ or to local causes such as myalgias, strains, postural defects, vertebral lesions, or any inflammatory or mechanical change involving sensory nerve roots. Tubercular spondylitis and the chronic ganglionitis of tabes are capable of producing pain closely simulating that of renal colic.

Motley discusses a pain syndrome closely simulating ureteral colic.[1] It consists of pain arising in the lumbar area and radiating around the flank to the abdomen and downward toward the bladder. The lesions found responsible for this syndrome involved the eleventh and twelfth thoracic and the first lumbar nerve segments. In some of his patients urologic investigation had been done, and treatment based on faulty diagnosis had consisted of nephropexy or the use of some abdominal support based on the assumption that the symptoms were due to ptosis, while another group of patients was subjected to anywhere from five to 100 cystoscopic instrumentations for the correction of supposed ureteral strictures. Motley states that the only result of this treatment has been "persistence of the same pain, a leaner purse and a discouraged outlook on life, and a dim view of the medical profession as a whole."

Orr, Mathers, and Butts have published case records in which pain identical with that of ureterorenal disease was found to be due to fibrolipomatous nodules located at the level of the twelfth dorsal and first and second lumbar vertebrae.[2] In these cases, temporary relief of pain followed injection of novocaine into the nodule and permanent relief was obtained following surgical removal.

Bladder symptoms due to lesions of the female pelvis are extremely common and, as a rule, present no serious diagnostic problems. Tumors, uterine malpositions, and alteration in the normal anatomic relations due to gynecologic surgery or childbirth are the most important factors.

Cystitis of the allergic variety is being reported with increasing frequency, although the small number of case reports in literature would lead one to believe that the condition is rare. It is quite probable that a greater awareness on the part of the urologists will add many more cases to the literature. A factor which militates against more thorough study of the suspected cases may be the transitory duration of symptoms. This is most apt to occur if the allergy is due to food hypersensitiveness. One should suspect an allergic cystitis in any patient presenting transitory symptoms of cystitis who gives a history of having had attacks of urticaria. It was possible to study the following case over a considerable period of time because pork, the only meat in the patient's diet, was eaten almost daily.

Case 1.—C. A., a girl aged five, complained of intense urgency, frequency, dysuria, and nocturia with intermittent attacks of gross hematuria. The past history and general physical examination were negative. Urine examination showed leukocytes and red blood cells. Repeated cultures of the urine were sterile. Guinea pig inoculations were later reported negative. On cystoscopic examination circumscribed areas of varying size were seen on the bladder wall. They appeared slightly elevated. Some had a pale center surrounded by an area of hyperemia and edema, while others had centers which were hemorrhagic in character. The cystoscopic picture resembled no lesion with which I was familiar at that time.

A more careful and detailed history obtained from the child's mother revealed the following facts: The child's parents who lived on a small farm had decided to defeat the then current meat shortage by raising pork for home consumption, so pork had been almost the only meat in the family's diet. Further questioning also revealed that the child had had an occasional attack of hives. Intradermal tests showed marked sensitivity to pork, and elimination of pork from the diet produced rapid recovery from all symptoms. It is noteworthy that this child had never had any previous allergic manifestations, nor has she shown any since.

Ordinarily appendicitis presents no very serious diagnostic problem; yet in a survey of 328 patients operated for appendicitis, Wels and Potter found 12 with sufficient urologic manifestations to make diagnosis difficult.[3] Of the patients studied 25 per cent had suprapubic tenderness; 33 per cent showed right costoverte-

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* Chairman's address.

bral tenderness; 33 per cent showed albuminuria, and in 42 per cent there were red blood cells in the urine. It is significant that in 75 per cent of the cases showing urologic symptoms the appendix was either retrocecal or pelvic. In addition to these symptoms, we have seen several patients in whom the first symptom noted by the patient was pain in the right testicle. Urinary tract symptoms due to appendicitis are easily explained as being due to extension of the inflammatory process to adjacent structure. The following case history illustrates this point.

Case 2.—W. N., a thirty-six-year-old white man, was admitted to Littauer Hospital complaining of pain in the right loin. He stated that for three weeks before admission there had been pain in the right abdomen which at times was colicky in character. It was not referred. It was unaccompanied by vomiting or other digestive symptoms and had not confined the patient either to his bed or indoors. On the day of admission, the pain became much more severe, and he had several severe chills. His past history was not significant except that he had tubercular bone disease in one leg during childhood.

Physical examination showed a rather poorly nourished man whose temperature was 102.8 F. The head and neck, respiratory, and circulatory systems were negative. The right side of the abdomen was slightly rigid, and in the right upper quadrant an indefinite mass was palpable. There was marked tenderness at the right costovertebral angle. On the right thigh were two linear scars resulting from bone tuberculosis suffered in childhood. Neurologic examination was negative. The hemoglobin was 90 per cent, and the red cells 4,365,000; white cells varied from 12,800 to 16,600. Polymorphonuclears showed 80 per cent top level. Blood urea nitrogen was 24 and blood sugar 108. At cystoscopy, the bladder presented nothing of interest. Urine obtained from the bladder and both kidneys was sterile on culture and negative for tuberculosis on smear and guinea pig inoculations. Pyelogram showed the right kidney fixed as demonstrated by double exposure films taken at inspiration and expiration. The shadow of the right psoas muscle was obliterated. There was bowing of the spine, and the right ureter was displaced laterally. Both kidneys showed satisfactory elimination of pthalein.

Diagnosis of perinephritic abscess was made, and at operation a large perinephritic abscess was opened and drained through the usual loin incision, finger dissection being used after the perirenal space was entered. The pus evacuated from the abscess had a strong fecal odor suggestive of Bacterium coli infection, and on culture staphylococcus and B. coli were isolated.

The patient reacted satisfactorily, and on the following day his temperature, which had ranged between 103 and 104.2 F., dropped to normal and, except for an elevation to 100.4 F. which occurred on two occasions, remained normal. On the third postoperative day it was noticed upon dressing the wound that the drainage, which until now had been purulent, was now definitely fecal and remained so during his entire stay in the hospital. He was discharged three weeks after operation with the wound healed except for a small sinus which drained a small amount of fecal material at irregular intervals. It was felt that this would heal spontaneously.

Six months later, the sinus had not healed, and the patient was readmitted to the general surgery service. An x-ray of the colon by means of barium enema showed the colon filling only to the hepatic flexure and the colon at this point appeared markedly irregular at its upper surface. At operation through a right rectus incision, it was found that no ascending colon was present. There was evidence of an old appendiceal abscess. The infected portion of the colon was removed, and an anastomosis of the ilium and transverse colon was done. Patient made a rather smooth postoperative recovery.

In this case, we have a frank urologic lesion due to direct extension from the appendix. The true nature of the lesion was not suspected until fecal drainage occurred, although the presence of B. coli in a perinephritic abscess should have aroused our suspicions. The entire picture was made more obscure by the congenital malformation of the intestinal tract and the unusual site of the appendix.

Pressure on the ureter by pelvic tumors and cysts, enlarged iliac lymph nodes, as reported by Marshall and Schnittman; Hodgkin's disease; and aneurysms of the iliac or abdominal aorta may produce symptoms which are indistinguishable from obstructive lesions due to intrinsic factors.[4] The following case belongs in this category.

Case 3.—W. M., a sixty-eight-year-old man, was admitted to the Littauer Hospital for urologic investigation. During the night before admission, the patient was awakened by pain in the right testicle. Pain was constant and severe enough to produce a slight degree of shock, but a physician was not called until the following morning. Morphine gave prompt relief. Examination by his physician elicited tenderness in the right costovertebral angle. Urine showed many red blood cells in the uncentrifuged specimen. An admission diagnosis of renal colic due to calculus was made. The relief of pain by the use of morphine was so complete that the patient came to the hospital in a taxicab and walked in unassisted.

When the patient was examined at the hospital, his pupils were equal and reacted normally. The lungs were clear. There was a loud systolic murmur heard over the entire precordia, the second aortic sound being greater than the second pulmonic. The abdomen was slightly distended, particularly in the epigastrium. There was some tenderness on pressure in the right upper quadrant and marked tenderness over the right costovertebral angle. Neither kidney was palpable. The right inguinal ring was patent, but there was no evidence of extrusion of the bowel or omentum. The scrotal

contents and prostate were normal. Neurologic examination was negative.

At cystoscopy, the passage of the instrument caused very profuse bleeding from the anterior urethra where some obstruction was encountered. The bladder contents were clear, and the bladder mucosa appeared normal. Both ureteral orifices were normal in appearance, and clear urine was emitted from each ureter. Number 6 catheters were passed easily. No obstruction was encountered. Flow from the catheters was normal in rate and rhythm. Flat film was negative for evidence of stone. The pyelogram showed both pelves normal in size and contour. Examination of urine obtained at cystoscopy showed the bladder urine to be filled with red blood cells. There was an occasional coarse granular cast. Urine from the right kidney showed only an occasional fine granular cast and from the left kidney 10 to 15 epithelial cells and an occasional red blood cell per high power field. Urine cultures were sterile.

When x-ray studies had been completed, the catheters were removed and the panendoscope introduced in order to identify the lesion producing the obstruction and urethral hemorrhage. In the posterior portion of the anterior urethra an hemangioma was found situated on the floor and left lateral wall of the urethra. This undoubtedly was the source of the red blood cells found in the urine. The patient's blood urea ranged between 30 and 61. Hemoglobin was 85 to 60, red cells from 3,950,000 to 3,140,000, white cells from 19,000 to 10,600, polymorphonuclears ranged from 93 to 76 per cent. Sedimentation rate was 64. Intravenous fluids and several transfusions produced only temporary improvement.

The patient expired rather suddenly after complaining of severe abdominal pain. At autopsy, an aneurysm of the abdominal aorta, situated just above the bifurcation, was found to have ruptured. In retrospect, re-examination of the pyelogram showed the right kidney and ureter to be situated slightly more laterally than the left. However, this deviation was not beyond normal limits.

Hematuria is one of the most important and certainly one of the most dramatic symptoms of disease of the urinary tract. In the review of 3,800 cases with urologic disease, MacKenzie reported 21.6 per cent had hematuria.[5] In 150 cases of surgical disease of the kidney, Herman found hematuria present in 43.3 per cent, while only 3.9 per cent of the general admissions to the Pennsylvania General Hospital gave a history of hematuria.[6] We must conclude from this that while hematuria is a prominent and frequent symptom in urologic practice, it is a comparatively rare symptom in general practice. It has been shown from various surveys that the incidence of hematuria due to extrinsic disease is approximately 5 per cent.

Routine urologic investigation will usually disclose the local causes of hematuria, but in those cases in which the hematuria is due to extrinsic disease the problem may become extremely difficult. Of the many common general causes of hematuria the various blood dyscrasias are of prime importance. Primary anemia, polycyphemia, and leukemia ordinarily will present no very great difficulty. Appropriate laboratory tests will confirm the diagnosis of occult jaundice, while the family and personal history will furnish the necessary clues if hemophilia is the causative factor. In those cases due to purpura, the characteristic hemorrhagic skin lesions will render the diagnosis easy. In Hodgkin's disease, however, the diagnosis may be much more obscure and final confirmation may depend on bone marrow studies or pathologic section of the lymph glands. Infectious fevers, namely, malaria, typhoid, and scarlet fever are of little importance to the urologist, since the diagnosis is usually clear.

Hematuria due to medicinal or other chemical factors is perhaps more common than generally supposed. Of the numerous drugs which may cause hematuria, the sulfonamides undoubtedly head the list. The role of urotropin and turpentine has long been recognized. Lyons reported six cases of hematuria in workmen employed in the aniline dye industry.[7]

The habitual use of aspirin for the treatment of headache was found to be the cause of rather profuse hematuria in two women referred to me for urologic investigation.

Summary

1. The upper urinary tract and the gastrointestinal tract have a common nerve supply.

2. Disease involving intraperitoneal viscera may simulate lesions of the urinary tract.

3. The differential diagnosis usually becomes the problem of the urologist.

4. Abstracted histories of illustrative cases are presented.

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RELATIVE IMPORTANCE OF LEADING CAUSES OF DEATH IN NEW YORK CITY

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(From the New York Tuberculosis and Health Association)

THE steadily declining mortality from tuberculosis, although more new cases have been reported lately, has naturally lowered the rank of the "white plague" among leading causes of death.[1] Several keen observers—Dempsey of the National Tuberculosis Association, Dickinson of the American Medical Association, Edwards of New York, and Stocks of England—have pointed out that a closer look into the age at which deaths occur from the more important killing diseases or conditions necessitates a rearrangement of the list if the relative importance of the principal causes of mortality is to be appreciated fully.[2–5]

Edwards, when discussing the importance of the leading causes of death for the entire United States during the year 1947, recalled that, according to ordinary numerical listing, tuberculosis among both males and females ranked only seventh that year among the chief causes of death. But he carefully added that if one considered the age at which the deaths from various causes occurred during the working period of life, primarily between fifteen and sixty-five years, men dying from tuberculosis at an average age of forty-eight and eight-tenths years lost sixteen and two-tenths years, and the disease rose to third place among leading causes of death. Moreover, in the case of the deaths from this same cause in the female sex, since they died at the age of forty and four-tenths years on an average, they lost even more, namely twenty-four and six-tenths years of the working period previously mentioned. From being seventh on the list, tuberculosis mortality among women, therefore, rose to first place among the leading causes of death in being responsible for loss of future working lifetime.

Stocks, chief medical statistician of the General Register Office in London, when studying tuberculosis mortality in England and Wales in 1945 in comparison to certain leading causes of death, which in this instance were syphilis, cancer, and fatal accidents, remarked that "on the average a death from tuberculosis robs the community of twenty-four years of future working life between the ages of fifteen and sixty-five, whereas a cancer death causes a loss of only five years between those ages, and a fatal accident eighteen years ..... This suffices," he added, "to establish the statement that tuberculosis is our number one problem, in that its eradication would confer more benefit to the community than would be the case for any other disease."

In New York City, during 1948, a total of 81,651 deaths from all causes occurred. The great majority of them, 88 per cent, were due to the following seven groups of diseases or conditions: first, came those due to cardiovascular renal diseases, a total of 39,444; second, cancer with 15,169 deaths; third, fatal accidents, 3,813; fourth, deaths associated with diabetes, 3,736; fifth, the group of deaths due to diseases of infancy or congenital malformation in the newborn, 3,436; sixth, tuberculosis, 3,112; and seventh, pneumonias, 3,037.

However, mortality was not evenly divided or due to identical causes, at least as to frequency, in each sex. While in both the male and female sex heart diseases and cancer were the first two leading causes of death, among men accidents were third, and among women, diabetes. In the male sex, tuberculosis was fourth among leading causes of death, followed in fifth place by pneumonias and in sixth place by cerebral hemorrhage, then diabetes and nephritis. In the female sex in New York City, the fourth principal cause of death in 1948 was cerebral hemorrhage followed by accidents, nephritis, pneumonias, and tuberculosis.

In a mere numerical listing of causes of death tuberculosis was, therefore, fourth in the male sex and only eighth in rank in the female sex. But this is rather an inadequate observation, for, if we look beyond that point and see at what time of life tuberculosis or the other causes strike, we have a much more enlightening view of what really takes place. Among men in New York City dying from some form of heart disease during 1948, the average age was sixty-four and nine-tenths years. The deaths associated with diabetes or due to cerebral hemorrhage occurred even later; the first struck down at an average of sixty-five and three-tenths years, and, the second, at sixty-six and three-tenths. Both the deaths from nephritis or from cancer among men occurred at an average age of sixty-two. Accidents, however, took toll at an earlier age, on an average of fifty-two years. The pneumonias

Presented at a meeting of the Tuberculosis Committee of the New York Tuberculosis and Health Association, New York City, November 10, 1949.

TABLE 1.—Loss of Future Working Lifetime (18 to 65 Years) Due to Principal Causes of Death, New York City for the Year 1948*

Rank	Cause of Death	Number of Deaths	Average Age at Death (Years)	Person-years Lost for Each Death		Total Person-years of Working Life Lost		Economic Loss to Community†
			Males					
					Rank		Rank	
1	Heart diseases	18,203	64.9	0.1	(6)	2,667	(6)	$ 8,001,000
2	Cancer	7,852	62.6	2.4	(5)	19,231	(4)	57,693,000
3	Accidents	2,410	52.2	12.8	(3)	30,805	(2)	92,415,000
4	Tuberculosis	2,202	50.6	14.4	(1)	31,768	(1)	95,304,000
5	Pneumonias	1,895	51.1	13.9	(2)	26,311	(3)	78,933,000
6	Cerebral hem.	1,766	66.3	0.0	(8)	0	(8)	.....
7	Diabetes	1,324	65.3	0.0	(7)	0	(7)	.....
8	Nephritis	1,224	62.1	2.9	(4)	3,585	(5)	10,755,000
			Females					
					Rank		Rank	
1	Heart diseases	13,782	69.9	0.0	(8)	0	(8)	.....
2	Cancer	7,317	61.1	3.9	(3)	28,704	(1)	857,408,000
3	Diabetes	2,412	66.6	0.0	(6)	0	(6)	.....
4	Cerebral hem.	2,011	68.4	0.0	(7)	0	(7)	.....
5	Accidents	1,403	62.7	2.3	(4)	3,240	(4)	6,480,000
6	Nephritis	1,211	63.4	1.5	(5)	1,827	(5)	3,654,000
7	Pneumonias	1,104	53.2	11.8	(2)	13,072	(3)	26,144,000
8	Tuberculosis	910	38.7	26.3	(1)	23,938	(2)	47,876,000

* Based on reports by courtesy of Bureau of Records and Statistics, Department of Health, City of New York.
† Department of Labor, State of New York—Weekly earnings, workers in manufacturing industries, 1948, New York City: men $67.22 to $72.44; women $42.83 to $46.18. Average annually: men $3,640; women $2,312. Computed, on basis of $3,000 annually for men and $2,000 for women to allow for unemployment, by G. J. Drolet, New York Tuberculosis and Health Association.

were responsible for death among men mostly of fifty-one years. Deaths from tuberculosis occurred at the earliest age in any of those causes listed here, fifty and six-tenths years.

Among women, in general, the average age at death was higher except in case of cancer and especially of tuberculosis (Table 1).*

Productive Work Period

If we consider that working lifetime in New York City for most people is between the ages of eighteen† and sixty-five, we find that among men the deaths from the causes listed were responsible in each case for the loss of the following person-years: heart disease only one-tenth of a year; both the deaths from cerebral hemorrhage and those associated with diabetes, since they occur on an average after age sixty-five, no loss, comparatively speaking, of working lifetime; in the case of cancer, about two and one-half years; the deaths from nephritis, a loss of nearly three years. The deaths from accidents, occurring as they do around age fifty-two, were responsible in each instance for the loss of thirteen person-years of working lifetime and those from pneumonias, thirteen and nine-tenths years. But those due to tuberculosis among men, occurring as they did at an age slightly over fifty, on an average, were responsible for a loss of no less than fourteen and four-tenths years of future working lifetime.

Thus, we see that, although on the ordinary listing of the number of deaths tuberculosis ranked fourth as a leading cause, in the case of deaths from this cause in the male sex, on the serious basis of the person-years lost for each death of possible future working lifetime, it ranked first, heart disease being relegated to sixth place and cancer to fifth place.

In the female sex, the deaths occurring in New York City during 1948 from tuberculosis numbered 910 and would seem to be only eighth in numerical rank among leading causes of death. But here again, if we look more carefully into the significance of the deaths from various causes among women, we see that the average age at death among those dying from heart disease was nearly seventy years; the deaths from both diabetes and cerebral hemorrhage were past sixty-five years of age; even those due to cancer were at an average age of sixty-one, and the deaths from pneumonia were at the age of fifty-three.

Deaths due to tuberculosis, however, were at a comparatively earlier period of life, the average age being only thirty-eight and seven-tenths years. Therefore, on the basis of person-years lost for each death during possible working lifetime, namely, from eighteen to sixty-five, those due to heart diseases, diabetes, and cerebral hemorrhage involved no loss since they all occurred after age sixty-five; those from nephritis caused a loss of only one and one-half years from a possible working capacity; those from accidents entailed a loss of two and three-tenths years; those from cancer cut off nearly four years, and the deaths from pneumonia approximately

* Average age at death from all causes: women, sixty-one and one-tenth years; men, fifty-eight and two-tenths.
† Younger children must either remain at school or be under vocational training in New York, and, if between sixteen and eighteen, "working papers" from the Health Department are required.

twelve years. Hence, deaths from tuberculosis among women in New York City in 1948 involved a loss of possible future working lifetime of no less than twenty-six years, or more than half the entire working period. On this practical basis of gauging the importance of leading causes of death in the female sex in New York City, tuberculosis now ranks first; pneumonias, second; and cancer, third. Heart diseases, on the contrary, from being first in a numerical listing drop all the way down to eighth place when one considers their relative importance.

Ultimate Total Loss of Working Life

The above comments relating to the age at death do not take into consideration the different number of deaths from the various causes. If, however, we do so now in conjunction with the years of life lost for each death during the working period from eighteen to sixty-five, we find that the deaths from diseases of the heart among men —which totaled 18,203 in New York City in 1948 and where there was involved, because of the average age of sixty-four and nine-tenths, only one-tenth of a year lost for each death— meant a total loss ultimately of 2,667 years of working life. But, on the other hand, in the case of the 2,202 deaths from tuberculosis in the male sex, which occurred on an average at age fifty-one and involved, therefore, in each instance a loss of fourteen years of possible working lifetime, we see a total of 31,768 years of working lifetime lost, the greatest number of any due to leading causes of death among men in New York City.

While tuberculosis ranks first among females according to the loss of working lifetime, since the deaths among women occur at an average age of 38.7 years with a loss, therefore, of 26.3 years, the small number of deaths (910 in 1948) shows a possible total loss of 23,938 years of working life, which is second to the 28,704 years due to cancer, since the deaths due to malignant tumors in the female sex were eight times as numerous as those due to tuberculosis.

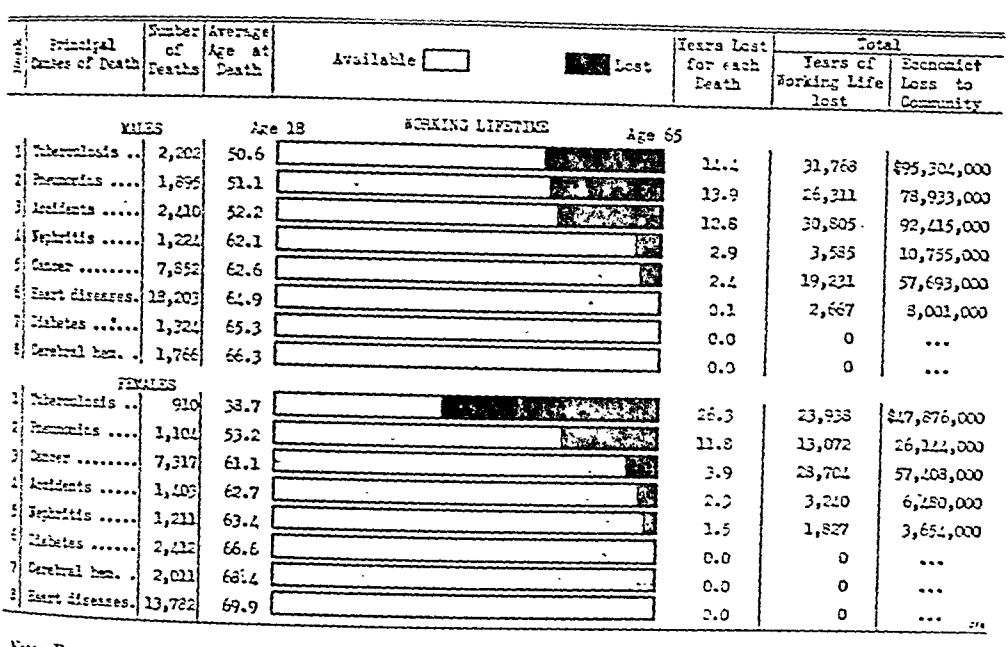
Economic Loss Due to Premature Deaths

The world-wide discussion of the influence of economic conditions on daily life has brought home that the everyday business dealings between different nations are bound up in problems of production, distribution, and payment of goods. In particular, it has been shown that the solution lay, especially for those countries that have been dependent upon American aid, in a greater capacity on their part to produce and, therefore, to make goods for exchange available. But production of goods is basically dependent on human labor, and we can understand all the better the importance of a disease on workers if we consider them for what they really are—the most valuable economic units.

On that basis an interesting and revealing computation can be made, for just the twelve-month period of 1948, of what the deaths from the leading causes we have been discussing have meant to the community. And it is there that we see a quite different and truer picture from that suggested by the ordinary listing of causes of death on a mere numerical basis. It is readily possible in this city to estimate fairly accurately the earning capacity of employed people and who, in these days, is not busy either at the shop, office or home (Fig. 1).

The New York State Department of Labor, for instance, for the year 1948 makes available for New York City separately the average annual earnings of workers in manufacturing industries both for men and women. It is sufficient to recall the rather large number of persons employed in the garment and textile industry in New York City or in printing establishments to see that the figures made available by the State of New York are a proper basis for the computation to follow. The Labor Department points out that during 1948 the average annual earnings of men in manufacturing industry was $3,640, and of women, $2,312. If, for purposes of discussion here, we set the possible economic loss from each death among people during their working period at lower figures, namely, $3,000 for men and $2,000 for women to allow for possible unemployment, we have a fair basis for gauging the situation from an economic viewpoint. On that score we see, for instance, that since the deaths among men last year from heart diseases involved a total number of 2,667 years of working life, the economic loss to the community from the cutting off of these workers must at least be approximately $8,000,000, with none whatever in the case of the deaths from heart diseases for the female sex since these occurred at an average age of sixty-nine and nine-tenths.

In the case of tuberculosis, which ranks first in the number of years of working lifetime lost (fourteen years) and where, therefore, among the 2,202 such deaths in the male sex a total of 31,768 years of working life was incurred, we see there a possible economic loss to the community of $95,000,000, the highest from any single cause of death. Even though among women the more numerous deaths from cancer at an average of sixty-one years involve a possible economic loss of $57,408,000, still we find in tuberculosis with its 910 deaths and the cutting off of twenty-six years in each case that there is an economic loss of $47,000,000. In fact, between the two groups of men and women, the deaths of valuable producers in just one year involve an ultimate economic loss



Note: Department of Labor, State of New York: Average annual earnings, workers, manufacturing industries—men $3,641, women, $2,312.
† Economic loss computed above on basis of $3,000 annually for men and $2,000 for women to allow for unemployment.
Based on reports by courtesy of Bureau of Records and Statistics, Department of Health, City of New York. G. J. Drolet, New York Tuberculosis and Health Association.

FIG. 1. Relative importance of leading causes of death according to loss of working lifetime between 18 and 65 years of age (among those dying during 1948 in New York City).

to the community of over $143,000,000. Let us bear in mind that these figures are arrived at on the basis of wages paid, and yet it is obvious that to their employers these workers must have been profitable and, therefore, that as economic units the amounts quoted are conservative and probably an understatement.

Summary

The ordinary numerical listing of leading causes of death is an incomplete statement of the loss from them incurred by the community.

The average age at death from various causes and the years lost during possible working lifetime in New York City during 1948 being taken into consideration, the deaths from heart diseases among men involved the loss on an average of one-tenth of one year for each death: those from cancer, two and four-tenths years; from nephritis, two and nine-tenths years; from accidents, twelve and eight-tenths years; from pneumonias, thirteen and nine-tenths years; and, from tuberculosis, the greatest of any, fourteen and four-tenths years. The latter, therefore, ranked first in importance as a man killer during the most productive period of life.

Among women, the loss of possible working lifetime was least from deaths due to nephritis, (one and five-tenths years) and again greatest from those due to tuberculosis (twenty-six and three-tenths years).

On the basis of years of working life lost and the assigned values or average wages earned during 1948, there was involved in the case of tuberculosis an estimated economic loss among men dying from that disease of $95,304,000 and among women $47,876,000—not to mention that, because of prolonged illness, especially from that disease, there is usually an additional amount of lost earnings prior to death.

According to loss of working lifetime, tuberculosis in New York City is in the first rank of significance among leading causes of death.

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and their physical well-being. The Committee is deeply concerned about the present unsatisfactory state and has given thought to possible remedies.

The discrepancy between the number of medical graduates available and the large number of approved internships is too great to be easily and completely reconciled. It is the opinion of the Committee that the introduction of a two-year internship in all those hospitals with sufficient clinical facilities to warrant them would aid a great deal in partially closing the gap. Such a plan would provide for the preparation of men for general practice or for training in a specialty.

At present, many hospitals have a one-year rotating internship, which is generally not considered adequate in New York City. The Committee believes that a good general internship could be arranged if it continued for two years. One year could be devoted to medicine and its specialties and one year to surgery and its specialties. Such a plan would prove very satisfactory for the preparation of general practitioners. For those desiring to prepare themselves for the practice of a specialty, the internship might be arranged in such a way that the second year would be devoted to the chosen specialty, having the necessity of an extra year of hospital training. This arrangement may permit the second year to be classed as an assistant residency.

In the accompanying diagram the Committee has illustrated the reduction in the number of annual appointments to the intern staff which may be effected with a two-year internship (Fig. 1). It will be seen in diagram 2 that by cutting the number of internships in half the resident structure would be rather top heavy, and there would only be two candidates a year available to go into the specialties. Of course, all this assumes that the total number of house staff which the hospital requires under the present one-year internship is the minimal requirement with respect to personnel. In the diagram we have used the hypothetical case of a hospital which has a house staff of 46, but we feel sure that the same thing would be true, regardless of the size of the house staff.

In diagrams 3 and 4, we have indicated our ideas of the possibilities if a two-year internship were instituted and the number of interns appointed each year cut down to two thirds of the number required under the one-year internship plan. In diagram 4, which suggests the plan of adding another year to the residency, half the interns would be available to go into the specialties.

It is evident that diagrams 3 and 4 offer the most satisfactory arrangement. Only two thirds as many men will be required annually as at present. This will permit a more equable distribution of interns among hospitals. In addition, there is assurance of better training for the future general practitioner, and the residency program is simplified.

The Committee recommends that hospitals be encouraged to adopt a two-year internship as outlined above.

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Special Article

SUGGESTIONS TO IMPROVE INTERN AND RESIDENCY TRAINING AND TO FACILITATE INTERN PLACEMENT BY REARRANGEMENT OF SCHEDULE

Report of Subcommittee of the New York Committee on the Study of Hospital Internships and Residencies

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(*Subcommittee, New York Committee on the Study of Hospital Internships and Residencies*)

WITH the onset of the last war the intern schedules existing at the time were seriously upset and modified by the demands of the armed forces for medical officers. The majority of the graduates were allowed to serve only a nine-month internship. The educational opportunities offered them during their military service varied a great deal. Some men had the good fortune to be assigned to units which offered an opportunity for study and practice, while others served as field officers with less opportunity to improve themselves. The result was that a large percentage of discharged medical officers required further education and sought appointments as interns, residents, or laboratory assistants, while others participated in refresher courses. Eventually, all the men were absorbed and found their place in more or less satisfactory positions in life.

During the war, home medical institutions were affected by reduction in teaching staffs, laboratory personnel, and intern assignments. At the termination of hostilities many hospitals did not return to the same type of an internship they had formerly had. A one-year internship was largely accepted. This was due partly to the fact that hospitals had become accustomed to a short rotating internship and partly to the fact that specialty boards required only a one-year internship prior to training in a specialty, with expansion of residencies at the expense of more prolonged internships. In addition, medical officers had become conscious of the advantages which certification in a specialty offered during war time. The demand for special training, therefore, increased enormously to the detriment of training for general practice.

These different factors have contributed to the present confused situation concerning internships and have complicated still further the problem of intern placement. This year's results in the national placement program were disappointing to the hospitals because there was an insufficient number of graduates available for the total number of internships offered (5,100 medical graduates for 9,118 internships).* The current shortage of interns among civilian hospitals is due to several factors. There are more approved internships available than there were before the war, and the institutions which formerly had a two-year internship now require twice as many men annually for their one-year internships. It is further accentuated by the number of medical men taken annually by the Army and Navy hospitals (over 10 per cent of the graduates).

* 1948–1949 figures.

To find a solution for these problems and, at the same time, to assure adequate basic practical training to interns and residents is most important. The problem is the same, whether they expect to engage in general or family practice or whether they desire to prepare themselves for the practice of a specialty. The training of interns and residents must be considered a joint problem. Cooperation between medical schools, hospitals, and other interested organizations is essential.

The New York Committee on the Study of Hospital Internships and Residencies is interested in the placement of interns and residents, their education,

Diagram 1—Present 1 year

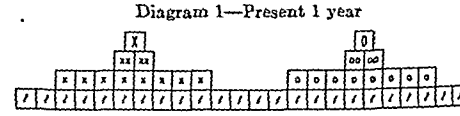


Diagram 2—½ as many 2 year men. 1 year added to residency.

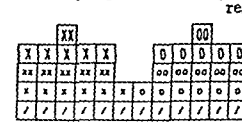


Diagram 3—½ as many 2 year men. No time added to residency.

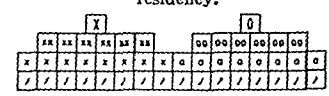
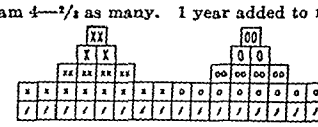


Diagram 4—⅔ as many. 1 year added to residency.



/ General mixed or rotating internship, first year.
x Second year internship, straight medicine (Assistant Resident).
o Second year internship, straight surgery (Assistant Resident).
xx Junior resident in medicine.
oo Junior resident in surgery.
X Senior resident in medicine.
O Senior resident in surgery.
XX Chief resident in medicine.
OO Chief resident in surgery.

FIG. 1. Reduction in the number of annual appointments to the intern staff which may be effected with a two-year internship.

was a member of the Chemung County and New York State Medical Societies and the American Medical Association.

Albert Ferdinand Soch, M.D., of Fredonia, died on October 30 at the Buffalo General Hospital at the age of seventy-eight. Dr. Soch was graduated from the University of Buffalo School of Medicine in 1897 and interned at the Erie County Hospital. Since 1900 he had been in general practice in Fredonia. In 1948 Dr. Soch was honored by the Medical Society of the State of New York for having completed fifty years of service as a physician. He was an honorary staff member of the Brooks Memorial Hospital in Dunkirk and a member of the Chautauqua County and New York State Medical Societies and the American Medical Association.

Davis S. Warner, M.D., of Center Moriches, died on November 13 at the age of eighty-five. Dr. Warner was graduated from the College of Physicians and Surgeons, Columbia University, in 1888, and had practiced for forty years in Center Moriches before retiring about twenty years ago. He first made his rounds with a bicycle and later with a horse and buggy.

Russell H. Wilcox, M.D., of Tonawanda, died on October 9 at the age of sixty-seven. Dr. Wilcox was graduated from the University of Buffalo School of Medicine in 1906. He was attending physician on the staff of the De Graff Memorial Hospital in North Tonawanda and was a member of the Buffalo Academy of Medicine, the Twin City Academy of Medicine, the Erie County and New York State Medical Societies, and the American Medical Association.

SCIENTIFIC EXHIBITS
1950
ANNUAL MEETING

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Dr. J. G. Fred Hiss
505 State Tower Building
Syracuse 2, New York

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No applications can be considered after January 15, 1950

There will be two groups of awards:

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W. P. Anderton, M.D., *Secretary*

NECROLOGY

Arnold I. Bricker, M.D., of Brooklyn, died in August. Dr. Bricker was graduated from the Long Island College of Medicine in 1947 and was a resident in radiology at the Beth-El Hospital in Brooklyn. He was an intern member of the Kings County Medical Society.

Francis Joseph d'Avignon, M.D., of Lake Placid, died suddenly on November 3 while on a hunting trip in Canada. He was sixty-four. Dr. d'Avignon received his medical degree from the McGill University College of Medicine in 1909 and had practiced in Lake Placid for many years. He was attending surgeon at the Lake Placid General Hospital. Dr. d'Avignon was a member of the Essex County and New York State Medical Societies and the American Medical Association.

Emery Alexander de Bardoly, M.D., of New York City and Manhasset, died on November 11 at his home in Manhasset at the age of forty-eight. Dr. de Bardoly, a native of Hungary, received his medical degree from the University of Budapest in 1925 and came to the United States before World War II. During the war he served as a captain in the U.S. Army Medical Corps in the Asiatic theater. He was stationed in Tokyo when General Hideki Tojo, wartime Japanese Premier, later executed, made his suicide attempt, and Dr. de Bardoly participated in his care. Dr. de Bardoly was president of and physician to the Verhozay Society, an association of Hungarian-Americans.

Walter R. Grunewald, M.D., of Mayfield, died on November 10 at his home at the age of sixty. Dr. Grunewald was graduated from the Albany Medical College in 1912 and had formerly practiced in Cohoes and Crescent. Dr. Grunewald, who moved to Mayfield in 1920, was assistant physician at the Nathan Littauer Hospital in Gloversville and had served as Fulton County coroner for the past twenty-seven years, having been re-elected to the position in the November 8 elections. He was a member of the Fulton County and New York State Medical Societies and the American Medical Association.

Lester Mead Hubby, M.D., of New York City, died on November 10 at his home after a brief illness, at the age of seventy-eight. Dr. Hubby was graduated from the New York University Medical College in 1896. During World War I he served as a major at the American Red Cross Hospital in Paris under Dr. Joseph Blake. Dr. Hubby was consulting otolaryngologist at the Harlem and Manhattan Eye, Ear, and Throat Hospitals, and consulting surgeon of the Northern Dispensary of the City of New York.

A Fellow of the American College of Surgeons and a Diplomate of the American Board of Otolaryngology, Dr. Hubby was a member of the American Laryngological, Rhinological, and Otological Society, the American Otological Society, the New York Otological Society, the New York Academy of Medicine, the New York County and State Medical Societies, and the American Medical Association.

George Albert Lane, Jr., M.D., of Rochester, died on October 31 at the age of seventy-four. Dr. Lane was graduated from the University of Buffalo School of Medicine in 1896. He practiced in Rochester for many years before his retirement about twenty years ago.

Frederick L. McCrea, M.D., of Port Jefferson, died on November 11 at his home at the age of sixty-eight. Dr. McCrea was graduated from the Long Island College Hospital in 1907 and had been practicing in Port Jefferson for the past forty-one years. He was chief of the obstetric staff of Mather Memorial Hospital in Port Jefferson and was a past president of the hospital's medical board. Dr. McCrea was a member of the Suffolk County and New York State Medical Societies and the American Medical Association.

Russell Addison Millar, M.D., of Williston Park, died suddenly on October 30 at the age of forty-four. Dr. Millar was graduated from the Long Island College Hospital in 1930. During World War II he served with the Navy Medical Corps as a lieutenant commander and was overseas in the Pacific theater. Dr. Millar was assistant pediatrician at the Nassau Hospital in Mineola and was an associate on the staff of the North Country Community Hospital in Glen Cove. He was a member of the Nassau County and New York State Medical Societies and the American Medical Association.

Christian William Schmidt, M.D., of Montour Falls, died on November 3 at the Arnot-Ogden Hospital in Elmira at the age of forty-seven. Dr. Schmidt was graduated from the Syracuse University College of Medicine in 1934. He was secretary-treasurer of the Schuyler County Medical Society and a member of that group, the New York State Medical Society, and the American Medical Association.

Samuel Maxwell Seafuse, M.D., of Elmira, died on October 29 at the age of eighty. Dr. Seafuse was graduated from the College of Physicians and Surgeons in Baltimore in 1893 and was honored several years ago by the Medical Society of the State of New York on his completion of fifty years of service as a physician. Dr. Seafuse began his practice in Gillett, Pennsylvania, before moving to Elmira, where he practiced for more than forty years. He

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CORRESPONDENCE

Medical Terminology

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WILLIAM WOLF, M.D.

40 West 59th Street
New York City
October 25, 1949

Sigmoidal Endometriosis

To the Editor:

In recent article on "Endometriosis of the Sigmoid," by Paul F. Berlin and Edward O. Finestone [NEW YORK STATE J. MED. 49: 2081 (Sept. 1) 1949], I was interested to note that a resection of the sigmoid was done for the endometriosis.

I would like to inquire of Doctors Berlin and Finestone as to the indications for such a resection in view of the fact that complete regression of such lesions usually occurs following simple bilateral oöphorectomy. I refer particularly to such standard textbooks as Wharton's *Gynecology*, Crossen and Crossen's *Diseases of Women*, and Goodall's *Endometriosis*.

I feel that the authors were unnecessarily radical but would like the point clarified.

HOWARD S. MORROW, M.D.

Crane Road
Mahopac, New York
October 14, 1949

Reply by Dr. Finestone

To the Editor:

In compliance with your request, I will attempt to answer the queries made by Dr. Morrow in his communication of October 14, 1949. The authors of the article, "Endometriosis of the Sigmoid," were quite cognizant of the fact that "complete regression of such lesions occurs following simple bilateral oöphorectomy." Indeed, a bilateral oöphorectomy was performed.

It is well known that, in lesions of the stomach with ulceration, it is virtually impossible to tell at operation, when the organ is seen and felt by the surgeon, whether he is dealing with a benign ulcer or a malignancy. Only a biopsy can decide this issue.

In this case, a well recognized pathologist was at hand for this very purpose, but it is impossible to take a biopsy of the colon without cutting through all its layers. Moreoever, in the case reported, the lesion was so indurated and had involved all the coats of the bowel to such an extent that it produced a marked stenosis. Therefore, it occurred to the authors that the fibrotic reaction resulting from the repeated hemorrhages incident to the endometriosis would not subside with castration alone. Therefore, a bowel resection was indicated. In the final analysis, where doubt exists as to a probable malignancy even though there is an associated benign condition, resection is deemed most advisable. A definitive biopsy was unobtainable by sigmoidoscopy before operation.

EDWARD O. FINESTONE, M.D.

1067 Fifth Avenue
New York City
October 31, 1949

Proposed Treatment of Radiosensitive Tumors with Repository Containing Radioactive Isotope

To the Editor:

When a substance is injected into the body and requires an extended length of time, say from about six hours to a week or more, to be completely absorbed, we speak of a repository or a depot of the substance. Repository therapy was used for a long time in the treatment of syphilis in the form of suspensions of mercury and bismuth salts in oil. Suspensions of estrogen in water give a prolonged action upon injection owing to repository formation.

In the early days of penicillin, injections of soluble sodium penicillin were given every four hours. Ways were sought to prolong its action by means of creating repositories. Romansky and Rittman in 1944 did this by mixing the sodium penicillin with oil and wax.[1] In 1947 the writer described a series of water insoluble penicillin salts, both organic and inorganic, which could be used as repository therapy to give prolonged blood levels.[2] The most widely used penicillin derivative at the present time, procaine penicillin, owes its repository action to its water insolubility.

What are the requirements of a substance to be used in repository therapy? Any substance, inorganic or organic, is suitable for such use, if it is substantially insoluble in water and is completely absorbable. Water-soluble substances as such are unsuitable unless mixed with a protective colloid such as wax or pectin to slow their absorption. A repository substance may be used in the solid form, as, for example, an estrogen implant; it may be injected suspended in water, or in oil if it is also insoluble in oil; it may be dissolved in diluted ethyl alcohol or some other nontoxic water-miscible solvent and then injected. The alcohol or other solvent is quickly absorbed, leaving the water-insoluble repository in situ. I have lately injected subcutaneously water-insoluble procaine base in aqueous suspension and in solution in 50 per cent ethyl alcohol to produce repositories resulting in anesthesia of the overlying skin for a period of two weeks and more or until the procaine was completely absorbed.[3]

The duration of a repository depends upon a number of factors, among which may be mentioned the degree of water insolubility of the substance used, the size of its particles, its concentration in the menstruum, the type of menstruum, the presence of protective colloids, and the vascularity of the tissue into which it has been injected. By varying these factors it is possible to produce repositories varying in duration of absorption from a few hours to two weeks and more.

If we use a repository substance, with a radioactive isotope taking the place of one or more of its normal atoms, we have at our disposal the means of introducing by injection or otherwise a radioactive substance into any area of the body and keeping it there a definite length of time. The latter will depend on either the duration of the repository or the life of the radioactive isotope or both. If, for example, the isotope Bismuth 210, with a half-life of five days, is used, most of the radioactivity will disappear before the entire repository has been absorbed. The opposite is true of long life isotopes. With the latter, such as carbon, it is necessary to use a repository which is completely eliminated, so that with complete absorption of the repository there should be no more radioactive isotope present in the body.

Suggested repositories are procaine base, especially valuable because of its anesthetic and pain-dulling effect as long as it remains present. In addition it is hydrolyzed by the body into para-aminobenzoic acid and diethylaminoethanol. Practically all of the former is quickly eliminated in the urine after absorption from the repository. The radioactive isotope should therefore be placed in the para-aminobenzoic acid fraction of the procaine base molecule.

The various salts of penicillin, especially the procaine and iron salts, are also suitable. In addition one may use bismuth subcarbonate or subnitrate, calcium carbonate, mono- or dicalcium phosphate, iron carbonate, iron phosphate, and barium or calcium sulfate.

Considerable work would have to be done to determine the proper dosage of such radioactive repositories. With this knowledge, however, tumors can be treated by injection, first around their periphery to prevent metastasis and then directly into the growth itself; suspicious areas during operation can be injected; lymph nodes can be neutralized; the thyroid area can be directly injected; epitheliomata of the skin can be undermined; radioactive phosphorus can be introduced directly into the bone marrow or spleen and a radioactive repository mist can be instilled into the lungs.

I myself have not the facilities to do work of this type but think my suggestions are valid and should stimulate work along these lines.

SAMUEL MONASH, M.D.

1475 Broadway
New York City
November 4, 1949

1. Romansky, M. J., and Rittman, G. E.: Science 100: 196 (1944).
2. Monash, Samuel: *Ibid.* 106: 370 (1947).
3. *Idem:* In Press.

NOTE ON YOUR 1950 CALENDAR THE DATES OF THE ANNUAL MEETING OF THE STATE SOCIETY, MAY 8–12, HOTEL STATLER, NEW YORK CITY.

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EDWARD O. FINESTONE, M.D.

1067 Fifth Avenue
New York City
October 31, 1949

TABLE 3.—Comparative Statement of Incurred Claim and Administrative Expense Ratios to Earned Premium Income for Nine Months Ending September 30, 1948 and 1949

	New York	Buffalo	Utica	Rochester	Albany	Syracuse	Totals
Earned Premium Income:							
September 30, 1949	$7,218,597	$949,166	$722,040	$399,590	$367,957	$179,327	$9,836,679
September 30, 1948	4,677,662	711,692	591,851	262,514	223,101	143,412	6,610,232
Claim Expense:							
September 30, 1949	$4,906,370	$732,001	$563,186	$275,418	$285,600	$147,503	$6,915,078
September 30, 1948	3,039,747	503,067	474,534	192,377	170,179	108,021	4,487,925
Administrative Expense:							
September 30, 1949	$1,477,839	$ 84,595	$ 98,554	$ 54,967	$ 32,104	$ 21,921	$1,769,980
September 30, 1948	990,126	73,142	84,591	39,491	24,761	18,619	1,230,730
Claim Expense Ratio to Earned Premium Income:							
September 30, 1949	67.97	77.12	78.69	68.60	77.6	82.25	70.29
September 30, 1948	64.98	70.69	80.17	72.20	76.3	75.32	67.89
Administrative Expense Ratio to Earned Premium Income:							
September 30, 1949	20.47	8.91	13.64	13.60	8.7	12.22	17.99
September 30, 1948	21.17	10.28	14.28	15.00	11.1	12.98	18.61

TABLE 4.—Claim Data (Paid Basis)—Year to September 30, 1949 (By Types of Contracts)

Plan Location and Types of Contracts	Number of Claims	Amount	Ratio to Earned Premium	Average Cost per Claim	Claim Incidence per 1,000 Participants per Annum	Average Exposure Participants
New York						
Surgical Expense Indemnity	53,622	$3,214,325	73.99	$59.94	70.5	1,013,051
Surgical, In-Hospital Medical	22,062	1,178,380	54.24	53.41	78.0	376,967
General Medical	32,007	387,670	57.45	12.11	704.4	60,582
Total	107,691	$4,780,375	66.47	$44.39		
Buffalo:						
Surgical	19,727	$ 573,911	75.03	$29.09	163.8	160,507
Surgical, In-Hospital Medical	5,109	$ 116,742	63.35	22.85	340.6	19,999
Total	24,836	$ 690,653	72.76	$27.80		
Utica:						
Surgical and Special Benefits	19,108	$ 492,106	81.40	$25.75	211.1	120,677
Medical Call Rider	1,805	$ 34,769	29.58	19.26	44.4	54,232
Total	20,913	$ 526,875	72.97	$25.19		
Syracuse:						
Surgical	479	$ 15,256	76.56	$31.64	166.3	3,823
Surgical and Medical	6,576	123,940	77.75	18.84	471.4	18,577
Total	7,055	$ 139,196	77.62	$19.73		
Rochester:						
Surgical	7,259	$ 250,312	62.64	$34.48	108.9	88,831
Albany:						
Surgical, In-Hospital Medical	6,213	$ 264,866	71.98	$42.63	143.3	57,783
Grand Total	173,967	$6,652,277	67.81	$38.23		

TABLE 5.—Comparative Statement of Claim Data (Paid Basis)—Nine Months Ending September 30, 1948 and 1949

	1948			1949		
Plan Location and Types of Contracts	Number of Claims	Amount	Ratio to Earned Premium	Number of Claims	Amount	Ratio to Earned Premium
New York:						
Surgical Expense Indemnity	34,756	$2,161,497	69.46	53,622	$3,214,325	73.99
Surgical, In-Hospital Medical	9,103	511,965	46.26	22,062	1,178,380	54.24
General Medical	*18,079	233,317	50.25	32,007	387,670	57.45
Total	61,938	$2,906,779	62.07	107,691	$4,780,375	66.47
Buffalo:						
Surgical	11,144	$ 342,065	67.30	19,727	$ 573,911	75.03
Surgical, In-Hospital Medical	5,743	128,843	63.31	5,109	116,742	63.35
Total	16,887	$ 470,908	66.16	24,836	$ 690,653	72.76
Rochester:						
Surgical Expense Indemnity	3,917	$ 142,731	54.37	7,259	$ 250,312	62.64
Utica:						
Surgical and Special Benefits, including Medical Call Riders	16,335	$ 437,262	73.88	20,913	$ 526,875	72.97
Syracuse:						
Surgical	340	$ 10,818	74.02	479	$ 15,256	76.56
Surgical and Medical	5,379	103,896	80.66	6,576	123,940	77.75
Total	5,719	$ 114,714	79.98	7,055	$ 139,196	77.62
Albany:						
Surgical, In-Hospital Medical	3,117	$ 126,687	56.78	6,213	$ 264,866	71.98
Grand Totals	107,913	$1,199,081	63.47	173,967	$6,652,277	67.81

* Estimated.

DEPARTMENT OF MEDICAL CARE INSURANCE

CONDUCTED BY GEORGE P. FARRELL, DIRECTOR

Membership in Medical Care Plans Approaching Two Million

AS OF September 30, 1949, membership in the voluntary nonprofit medical care insurance plans in New York State (approved by the Medical Society of the State of New York) was 1,987,104, an increase of 447,845 members for the nine-month period. Payments for benefits to members was $6,652,277, an increase of $2,453,196, or 58 per cent more than the corresponding period a year ago.

NEW YORK STATE VOLUNTARY NONPROFIT MEDICAL CARE INSURANCE PLANS

(Approved by the Medical Society of the State of New York)

QUARTER ENDING SEPTEMBER 30, 1949

TABLE 1.—MEMBERSHIP PROGRESS

By Types of Contracts	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only:							
September 30, 1949	1,038,515	178,347	126,751	4,120	89,327		1,437,060
June 30, 1949	987,992	172,240	119,433	3,805	84,024		1,367,494
Increase	50,523	6,107	7,318	315	5,303		69,566
Surgical, In-Hospital Medical:							
September 30, 1949	388,286	19,268				60,396	467,950
June 30, 1949	365,696	19,619				57,995	443,310
Increase	22,590	−351				2,401	24,640
Surgical-Medical (Home, Office, and Hospital):							
September 30, 1949	62,551			19,528			82,079
June 30, 1949	57,209			18,716			75,925
Increase	5,342			812			6,154
Medical Expense Fund:							
September 30, 1949	15						15
June 30, 1949	15						15
Increase	0						0
Grand Totals:							
September 30, 1949	1,489,367	197,615	126,751	23,648	89,327	60,396	1,987,104
June 30, 1949	1,410,912	191,859	119,433	22,521	84,024	57,995	1,886,744
Increase	78,455	5,756	7,318	1,127	5,303	2,401	100,360

NOTE: 57,607 members in the Utica Plan were covered by Medical Call Riders as of September 30, 1949, an increase of 3,623 during the quarter.

TABLE 2.—COMPARATIVE STATEMENT OF MEMBERSHIP INCREASE FOR NINE MONTHS ENDING SEPTEMBER 30, 1948 AND 1949

By Types of Contracts	New York	Buffalo	Utica	Syracuse	Rochester	Albany	Totals
Surgical Only:							
September 30, 1949	227,457	39,361	16,788	747	20,674		305,027
September 30, 1948	183,594	26,348	15,799	1,323	13,846		240,910
Surgical, In-Hospital Medical:							
September 30, 1949	114,572	−1,617				8,697	121,652
September 30, 1948	100,210	−2,039				20,194	118,365
Surgical-Medical (Home, Office, and Hospital):							
September 30, 1949	18,525			2,795			21,320
September 30, 1948	16,255			2,702			18,957
Medical Expense Fund:							
September 30, 1949	−154						−154
September 30, 1948	−520						−520
Grand Totals:							
September 30, 1949	360,400	37,744	16,788	3,542	20,674	8,697	447,845
September 30, 1948	299,539	24,309	15,799	4,025	13,846	20,194	377,712

After discussion, *it was voted* that the matter of employing a legislative representative be laid on the table, on account of other unexpected expenses.

Problems of Alcoholism.—Dr. Milton G. Potter, chairman, wrote Dr. Anderton on October 10, 1949, and enclosed a copy of the third report of the Subcommittee on Problems of Alcoholism to the Interdepartmental Health Council of New York State. This report approves continuation of the clinic for the care and rehabilitation of the chronic alcoholic patient which is being conducted under the auspices of the University of Buffalo School of Medicine in Buffalo. It also proposes that a bill similar to the following be introduced in the 1950 State Legislature. Dr. Potter requests "approval of the draft by the Council at this time," and that it be introduced under the auspices of the Medical Society of the State of New York.

DRAFT OF PROPOSED BILL

"Control of Chronic Alcoholism"

The Commissioner of Health is hereby authorized to establish, equip, maintain, and conduct a demonstration program designed to determine adequate methods for the care and rehabilitation of persons suffering from chronic alcohol addiction; to carry out such educational and research activities as he may deem necessary in connection with the said program; to encourage and assist local communities in establishing and maintaining outpatient services for rehabilitable alcoholic addicts, and to establish necessary rules and regulations to effect the purpose of this act.

The Commissioner may conduct this program solely as a State activity or in cooperation with such institutions, hospitals, or municipal corporations as he may select, on such terms as they agree upon.

The sum of $150,000 or as much thereof as may be necessary is hereby appropriated to the Department of Health for the purpose of carrying out the provisions of this section of the Public Health Law as added by this act.

This act will take effect April 1, 1950.

It was voted to approve the report.

Economics.—Dr. Azzari, chairman, reported regarding meetings which Mr. Farrell, Director of the Bureau of Medical Care Insurance, had attended. He stated that financial and membership statements about the New York State plans for the years 1946, 1947, and 1948 and to June 30, 1949, had been distributed at the district branch meetings and included in his report to the Council as published in the agenda of the meeting.

Dr. Azzari reported regarding several matters referred to the Economics Committee, as follows:

Income Tax Allowance for National Health Insurance (the Linowitz Plan).—The Committee recommended this should be studied further. The Council granted permission.

Practice of Medicine by Hospitals.—Dr. Azzari stated that it continued to be the feeling of the Committee on Economics that it would be unwise to have a conference with deans of medical schools and representatives of teaching institutions at this time.

After discussion, *it was voted* that no action be taken at this time.

Group Health Insurance, Inc.—The Committee studied this plan and the application of this Group for endorsement by the State Society and makes no recommendation as to approval, following the established policy of referring such groups to the respective county societies first, for endorsement.

After discussion, *it was voted* that the Group Health Insurance, Inc., be notified that the proper procedure for them to follow would be to request the county societies, in the area in which they operate, to give endorsement.

Annual General Practitioner's Award—The Committee received from the Secretary the nominations of two men from county societies for the Annual General Practitioner's Award to be submitted to the American Medical Association. The Committee felt that it was unfortunate that there were only two, because both are very worthy men.

After discussion, *it was voted* to nominate Dr. John R. MacElroy of Saratoga County for the Annual General Practitioner's Award of the American Medical Association.

Public Medical Care—Dr. Anderton stated that Dr. Stephen R. Monteith, chairman of the Public Medical Care Subcommittee, recommends approval of the second edition of the *Drug Manual* issued by the Onondaga County Department of Welfare.

Approval was voted.

Malpractice Insurance and Defense Board.—A member appeared before the Council in regard to his petition that the Council reconsider its vote not to renew his malpractice insurance under the Society's group policy.

It was unanimously voted that the recommendation of the Malpractice Insurance and Defense Board be adopted as follows: In view of the rather unfavorable record that this member has had in regard to malpractice insurance, thereby throwing an undue burden on the rest of the members insured, that he be denied the privilege of re-insurance in the Malpractice Insurance Plan at the expiration of his present contract.

Publication.—Dr. Kosmak reported that the Committee met on October 12, 1949. Changes in the advertising department of the JOURNAL and *Directory* necessitated much discussion. It was believed desirable to increase our present staff of advertising solicitors to include the West Coast and the Middle West, so that eventually we will have five salesmen instead of two.

Mr. Anderson's visit to Chicago recently was productive of complimentary statements as regards the advertising value of the JOURNAL, and, notwithstanding the depressed situation in the advertising field, we are glad to report that, as far as the JOURNAL is concerned, there has been no diminution but rather a certain increase. Of course, that will be balanced by the fact that the expense of publishing the JOURNAL during the coming year is largely increased. We have also found it desirable to use a heavier quality of paper, and I think that will reflect favorably on the advertisers as well as the readers of the JOURNAL.

The budget for the year was thoroughly discussed. Dr. Reuling will report about it later.

We also decided on an increase in advertising rates of 10 per cent both for the JOURNAL and the *Directory*.

In view of the fact that the New Jersey and Connecticut physicians are to be omitted from the next *Directory*, we considered that we would have to change the title to the *Medical Directory of New*

SUMMARY OF MINUTES OF THE COUNCIL OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK

AT ITS meeting on October 13, 1949, the Council considered the following matters, taking action as indicated.

Secretary's Report

Remission of Assessments.—Remission of annual assessments was voted on account of service with the armed forces for one member for 1948; on account of illness for three members; also, War Memorial assessment on account of illness for one member.

Communications.—1. Letter dated September 6, 1949, from Mr. Frederick F. Stevens, President, New York State Pharmaceutical Association, to President Masterson, requesting that the Medical Society of the State of New York appoint a committee to act in conjunction with one from their society.

It was voted to approve a joint committee of the Medical Society of the State of New York and the New York State Pharmaceutical Association and that Dr. Masterson be empowered to negotiate with the President of the New York State Pharmaceutical Association to decide the size of the committee and to appoint our members.

2. Letter of September 7, 1949, from Dr. Carl M. Peterson, Secretary, Council on Industrial Health, American Medical Association, requesting that the Medical Society of the State of New York cosponsor the Tenth Annual Congress on Industrial Health at the Hotel Roosevelt, New York City, on February 20 and 21, 1950.

It was voted to act as a cosponsor.

3. Letter of October 4, 1949, from Miss Clara Quereau, Secretary, Board of Examiners of Nurses, to Dr. Anderton, requesting two or more nominations for a vacancy on the Nurse Advisory Council of the New York State Department of Education.

Dr. W. P. Anderton and Dr. W. Guernsey Frey, Jr., were nominated.

4. Letter of October 5, 1949, from Dr. Herman E. Hilleboe, New York State Commissioner of Health, acknowledging letter of September 27, 1949, sent by the Secretary regarding action taken by the Council on the report of the Committee on Problems of Alcoholism.

Activities.—The Secretary detailed his attendance at district branch meetings and announced that the annual meeting of county society secretaries was to be held November 2, 1949, at the Hotel Ten Eyck, Albany.

He also reported that President Masterson had him notify Dr. James A. Lynch, Bronx, that he has been appointed on the Legislation Committee; Dr. David S. Ruhe and Dr. Granville Larimore, New York State Department of Health, Albany, that they were advisory members of the Subcommittee on Medical Film Review of the Public Health and Education Committee; and Dr. Irving J. Sands, Brooklyn, that he is a member of the Mental Hygiene Subcommittee of the Public Health and Education Committee.

At the request of Mr. Robert W. Osborn, secretary of the Committee on Tuberculosis and Public Health of the State Charities Aid Association, Dr. Theodore J. Curphey, chairman of the Committee on Public Health and Education, was requested to represent the Society at the first meeting of the Heart Advisory Committee to the State Executive Committee of the Committee on Tuberculosis and Public Health of the State Charities Aid Association. The Secretary suggested that this request be approved and that Dr. Curphey be designated as representative on this Heart Advisory Committee.

Approval was voted.

Furthermore, Dr. Anderton reported that during the past month there had been an unusual number of physicians who called in regard to localities in New York State desiring a general practitioner. Having visited eleven such localities during his recent vacation, the Secretary reported he was able to be of help.

Also, President Masterson requested the Secretary to represent the Society on the Citizens Committee on Hospital Bond Issue for New York State.

Approval was voted.

The Secretary announced that Mr. Bernard McDermott, president of the Hospital Association of New York State, has appointed the members of his Executive Committee to represent the association on the Joint Committee of the Hospital Association of New York State and the Medical Society of the State of New York. These gentlemen are: Messrs. Carl P. Wright, Carl P. Wright, Jr., Lawrence E. Kresge, and Moir Tanner.

On October 10, 1949, the Secretary represented the Society at the laying of the cornerstone of the Bird S. Coler Memorial Hospital for Chronic Diseases on Welfare Island, New York City.

The sudden death of Mrs. Edgar M. Neptune, last year's president of the Woman's Auxiliary, was reported. Flowers were sent to her funeral in the name of the Society and a letter of sympathy to Dr. Neptune.

The Treasurer's report was accepted.

Report of the Executive Officer

Dr. Hannon reported his attendance at district branch meetings and at a special meeting of the Subcommittee on Legislation. He reported he had been in contact with representatives of the Department of Education, the Dental Society, the Podiatry Society, and the Optometrists Association in regard to proposed legislation.

Reports of Committees

Legislation.—Dr. Dattelbaum, chairman, reported as follows:

Following the approval of the Council, the Chairman and Executive Officer have continued to work on its recommendations which were approved by the Council and to stimulate the subcommittees of the Legislative Committee to carry out their assignments. Contacts have been made through members of these subcommittees with various legislators, representatives of different State departments, and representatives of other professions.

On September 20, 1949, a subcommittee of the Legislation Committee met at the State Society office to discuss the proposed employment of an additional full-time legislative representative.

After discussion, *it was voted* that the matter of employing a legislative representative be laid on the table, on account of other unexpected expenses.

Problems of Alcoholism.—Dr. Milton G. Potter, chairman, wrote Dr. Anderton on October 10, 1949, and enclosed a copy of the third report of the Subcommittee on Problems of Alcoholism to the Interdepartmental Health Council of New York State. This report approves continuation of the clinic for the care and rehabilitation of the chronic alcoholic patient which is being conducted under the auspices of the University of Buffalo School of Medicine in Buffalo. It also proposes that a bill similar to the following be introduced in the 1950 State Legislature. Dr. Potter requests "approval of the draft by the Council at this time," and that it be introduced under the auspices of the Medical Society of the State of New York.

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York State. The Committee plans to extend the value of this book by inserting a considerable amount of material of interest to physicians, which will make them refer to the book more often and so increase its value to advertisers. That matter is still under discussion.

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Public Health and Education.—Dr. Curphey, chairman, sent a report stating he had attended meetings of subcommittees and arranged for post-graduate instruction and teaching days for several counties.

In connection with the activities of the Subcommittee on Cerebral Palsy, it was recommended that Dr. George W. Kosmak be included as a member.

It was voted that the recommendation be approved.

Public Relations.—Dr. Winslow, chairman, reported that during the past month the Public Relations Bureau took steps to reactivate the full-scale field program that had been halted temporarily during the summer. Mr. Leech, Mr. Tracey, and Mr. Weinrich returned to their stations and resumed activities. Coordination of the field program was placed in charge of Mr. Miebach, while Mr. Walsh was assigned to the speakers bureau and the Woman's Auxiliary.

He also reported on the various activities that took place during the month, such as releases on district branch meetings, publicizing an article in *Look* magazine, and Dr. Louis H. Bauer's speech to the National Association of Retail Druggists.

Veterans Administration, Liaison with.—Dr. Anderton reported that the contract between Veterans Medical Care Plan of New York, Inc., and the U. S. Veterans Administration had been extended for a year and that the salaries of the Coordinators had been reduced one quarter.

Woman's Auxiliary.—Dr. Beekman, chairman, reported as follows: As the National Education Campaign gains momentum, the value of the part our woman's auxiliaries, both State and county, are playing in relaying the medical profession's message to the American public becomes more evident.

Therefore, it is recommended that the Council authorize the Secretary to prepare a letter to the presidents of the county medical societi letter should contain the suggestion that, practical, the chairman of each county State public relations committees extend tion to the chairman of the respective auxiliaries' public relations committees the meetings of his committee.

Approval was voted.

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New Business

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It was voted that the Council request the I to appoint this committee.

The President so appointed.

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It was voted to send a letter from President son to the president and secretary of eac society with a copy of Judge Proctor's char jury in the suit of the Department of against the Washington, D.C., Medical and the A.M.A. some years ago.

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VITAMIN B_{12}, EXERCISES AID VICTIMS OF PERNICIOUS ANEMIA

Spinal cord degeneration, which is one of the most sinister complications of pernicious anemia, can be reversed if treatment with vitamin B_{12} and exercises is begun early enough, say three doctors from the Mayo Clinic, Rochester, Minnesota.

"Our study indicates that degeneration of the spinal cord associated with pernicious anemia is reversible if intensive treatment is instituted early," Drs. Byron E. Hall, Frank H. Krusen, and Henry W. Woltman write in the September 24 *J.A.M.A.*

"Early diagnosis, therefore, is essential," they add. "Treatment consists of administration of vitamin B_{12} and daily use of coordination exercises.

"The simple arrest or reversal of the degenerative changes by the administrat vitamin B_{12} without the use of a well-directe cise program will not accomplish return normal coordination and function of the extr as rapidly as when the exercises are added. start with the patient in the recumbent p become gradually more complex, and prog exercises given in the sitting and finally in th position."

The doctors base their conclusion on resul tained in treating 12 patients for degenerat the spinal cord associated with pernicious ane

MEDICAL NEWS

First War Memorial Scholarships Awarded

AS A tribute to 34 members who lost their lives while serving as medical officers in World War II, the Medical Society of the State of New York has announced through its War Memorial Committee the award of the first of a series of scholarships to provide for the education of their surviving children.

Ten young men and women, most of them now enrolled in schools and colleges, were the first to benefit under the provisions of a War Memorial Fund, created by the State Society by a $12 special assessment on each of its 23,000 members. There are 65 children of deceased medical officers from New York State eligible to benefit under the Fund. More than 5,100 members of the State Society were in service during the last war.

Dr. James F. Rooney, of Albany, chairman of the War Memorial Committee, estimated that the Fund will continue in operation until 1972, and will entail a total expenditure up to $328,000. He said scholarships will be awarded annually to each eligible survivor upon completion of his or her high-school education, if he or she pursues a collegiate or postgraduate professional course, up to the age of twenty-five.

Recipients of the first awards in the form of checks issued by Dr. James R. Reuling, of Bayside, treasurer of the State Society, were:

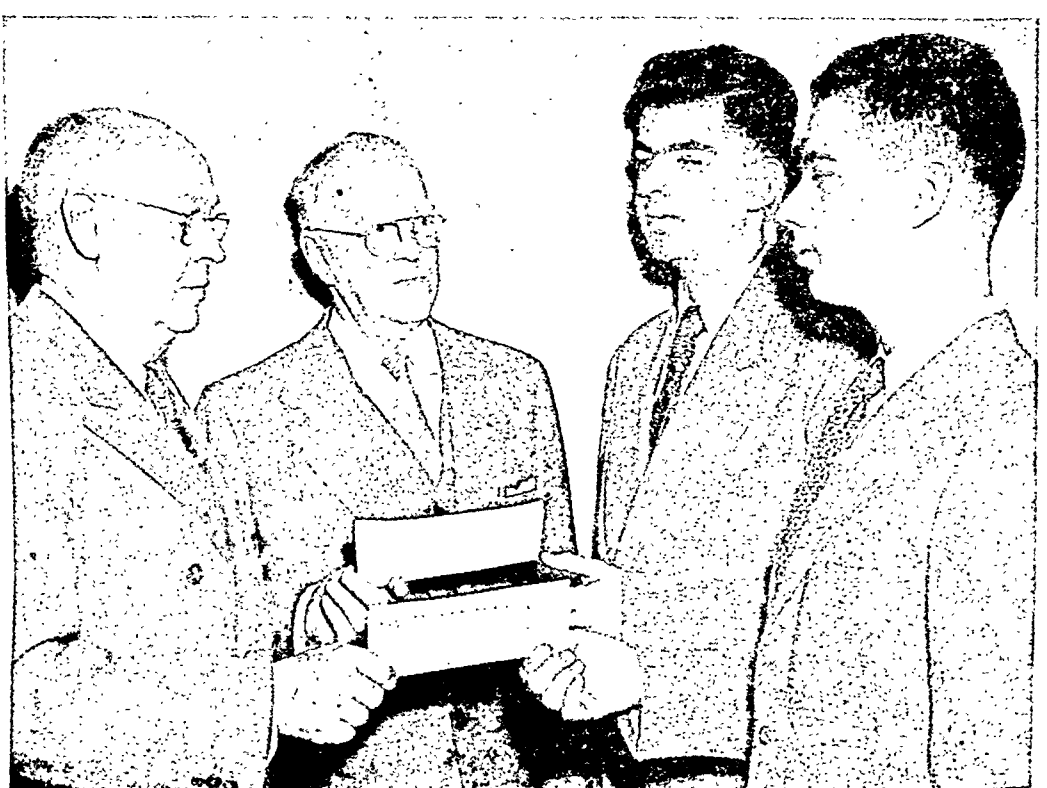
John R. Benfield, eighteen, a student at Columbia College. His father, Captain Richard Benfield, died in Calcutta, India, on October 8, 1945. His home is at 103 West 86th Street, New York City.

Mary Jean Buckmaster, twenty-two, who graduated this year from the University of Michigan. Her father, Major De Forest Buckmaster, died at Walter Reed Hospital, Washington, on February 3, 1945. Her home is at 609 Spring Street, Jamestown.

Franklin Brown, fourteen, a student at St. George's School, Middletown, Rhode Island. His father, Commander Clyde H. Brown, lost his life on April 12, 1945, at Okinawa. His mother is Mrs. Clyde H. Brown, of 33 Cranston Avenue, Newport, Rhode Island.

Lillian M. Haran, nineteen, a student at the University of Miami, at Miami, Florida. Her father, Captain Patrick S. Haran, died at Fort Jay Hospital on December 15, 1944. Her home is at 846 Prospect Place, Brooklyn.

Arthur E. Lyons, eighteen, a student at Columbia



Two future doctors receive War Memorial Scholarship awards. Left to right: Dr. James R. Reuling, State Society treasurer; Dr. John J. Masterson, State Society president; John R. Benfield, New York City, and Arthur E. Lyons, Flushing, both students at Columbia College.

York State. The Committee plans to extend the value of this book by inserting a considerable amount of material of interest to physicians, which will make them refer to the book more often and so increase its value to advertisers. That matter is still under discussion.

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It was voted that the recommendation be approved.

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Therefore, it is recommended that the Council authorize the Secretary to prepare a letter to the presidents of the county medical societies. This letter should contain the suggestion that, wherever practical, the chairman of each county and the State public relations committees extend an invitation to the chairman of the respective woman's auxiliaries' public relations committees to attend the meetings of his committee.

Approval was voted.

Workmen's Compensation.—Dr. Kenney, chairman, reported on the activities of the Committee.

New Business

Appointment of Committee on History of the Medical Society of the State of New York.—Dr. Anderton reported as follows: A Special Committee on the History of the Medical Society of the State of New York has been previously recommended and has been considered in conference by several members. Dr. Redway has written to the President suggesting that such committee consist of Dr. Fenwick Beekman, chairman, Dr. Nathan B. Van Etten, Dr. W. P. Anderton, Dr. Laurance D. Redway, and Dr. James F. Rooney, with Miss Dougherty as recorder.

It was voted that the Council request the President to appoint this committee.

The President so appointed.

Judge Proctor's Charge to the Jury in A.M.A. Case.—Judge Proctor states in simple and plain language what a membership society can and cannot do.

It was voted to send a letter from President Masterson to the president and secretary of each county society with a copy of Judge Proctor's charge to the jury in the suit of the Department of Justice against the Washington, D.C., Medical Society and the A.M.A. some years ago.

Political.—As the result of a memorandum read by Dr. Anderton,

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Volume 49

Part 2

JULY 1–DECEMBER 15, 1949

(Pages 1487–2988)

For alphabetical index of authors and subjects see pages 2973–2982

College. His father, Lt. Commander Alfred L. Lyons, lost his life on April 28, 1945, on a hospital ship off Okinawa. His home is at 164-03 Crocheron Avenue, Flushing.

Robert J. Milne, nineteen, attending Hobart and William Smith Colleges, Geneva. His father, Major E. A. Milne, died at Strong Memorial Hospital, Rochester, on May 4, 1948. His home is at 23 Wolcott Street, Le Roy.

Lawrence G. Sachs, twenty-five, who finished third year law school at Harvard University in May. His father, Captain Harold M. Sachs, died at home on October 7, 1943. His home is at 1648 Madison Street, Brooklyn.

Clifford A. Schmiesing, eighteen, a student at Loyola University, Los Angeles, California. His father, Major Clifford A. Schmiesing, died on January 21, 1944, in Algeria. His home is at 1117 South Wilton Place, Los Angeles.

Fay M. Stevens, eighteen, a student at Elmira College, Elmira, and Charles L. Stevens, twenty, enrolled at Pennsylvania Military College, Chester, Pennsylvania. Their father, Lt. Commander Charles L. Stevens, died at Pensacola Naval Hospital on November 19, 1943. Their home is at 636 West Gray Street, Elmira.

Some of the students received retroactive awards, due to the fact that they became eligible under the provisions of the War Memorial Fund last year.

Members of the War Memorial Committee, of which Dr. Rooney is chairman, are Drs. Edward R. Cunniffe, of the Bronx; Maurice J. Dattelbaum, of Brooklyn, and Fenwick Beekman, of New York City.

MEDICALLY SPEAKING—

Electrical Transcriptions—The Bureau of Health Education of the American Medical Association has provided an excellent series of electrical transcriptions for use by medical societies and other interested groups. These should be extremely valuable as dramatic presentations by radio professionals derived from authentic medical sources and including a large variety of subjects. For further information address the Bureau at 535 North Dearborn Street, Chicago 10, Illinois.

Mobile Chest X-ray Unit—The first mobile chest x-ray unit of the Bureau of Tuberculosis of the New York City Department of Health was put into operation at Borough Hall, Brooklyn, on October 24. The new $25,000 mobile x-ray unit, housed in a 27-foot specially designed bus with a six-foot trailer carrying the generator, will be used in all five boroughs.

"The new unit will take the x-ray facilities of the Department of Health into even the remotest sections of the City," said Dr. Arthur B. Robins, director of the Department's tuberculosis bureau. "This new service is part of the continuous fight the Department of Health wages against tuberculosis," he explained. "The Bureau of Tuberculosis has steadily intensified its use of mass x-ray surveys to discover cases of tuberculosis in persons who do not realize they have the disease."

Elect District Branch Officers—Officers for the Second and Sixth District Branches of the Medical Society of the State of New York were elected at the annual meetings of the groups, held recently.

Meeting October 19 in Cortland, the Sixth District Branch elected the following officers, to serve for two years beginning at the adjournment of the 1950 House of Delegates: Dr. Norman C. Lyster, Norwich, president; Dr. Elton R. Dickson, Binghamton, first vice-preisdent; Dr. Gilbert M. Palen, Margaretville, second vice-president; Dr. James L. Palmer, Binghamton, secretary, and Dr. Robert H. Kerr, Cortland, treasurer.

At its meeting October 26 in Bronxville, the Second District Branch elected the following officers for the remainder of the current year and until the House of Delegates adjourns in 1951: Dr. Stephen R. Monteith, Nyack, first vice-president; Dr. Austin B. Johnson, Cedarhurst, second vice-president; Dr. John F. Rogers, Poughkeepsie, secretary, and Dr. Reid R. Heffner, New Rochelle, treasurer. Dr. Charles C. Murphy, Amityville, continues as president. Next year this branch will elect all their officers for the two ensuing years.

Postgraduate Instruction—On Monday, December 19, a program of postgraduate instruction will be given for the Geneva Academy of Medicine at the Bellhurst, Geneva, at 8:30 P.M. Dr. Foster Kennedy, professor of clinical medicine (neurology), Cornell University Medical College, will speak on "Psychiatric and Neurologic Problems in General Practice." The program has been arranged by the Council Committee on Public Health and Education of the Medical Society of the State of New York with the cooperation of the New York State Department of Health.

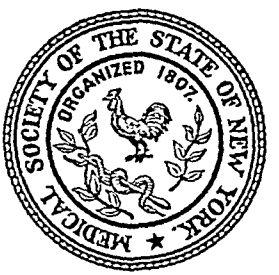
Course in Psychiatry—A course in "Psychiatry in General Medicine" will be given at the Mount Sinai Hospital, New York City, in affiliation with Columbia University, on Tuesday mornings, from 9 A.M. to 12 NOON, from January 3 to May 16, 1950, inclusive. The course is designed for the general practitioner with particular reference to the type of neuropsychiatric problems in general hospital and medical practice. Application may be made to the Registrar for Medical Instruction, Mount Sinai Hospital, Fifth Avenue and 100th Street, New York 29, New York.

To Give Lecture—The sixteenth Walter M. Brickner Lecture will be given at the Hospital for Joint Diseases, New York City, by Dr. Ephraim Shorr, associate professor of medicine, Cornell University Medical College, on Tuesday, December 27, at 8:30 P.M. The subject of the lecture will be, "Some Aspects of Skeletal Metabolism and Renal Calculus Formation."

Military Surgeons to Meet—A joint meeting of the Metropolitan New York Chapter, Association of Military Surgeons, and the New York Academy of Medicine will be held Friday night, January 6, 1950, at 8:30 P.M. at the New York Academy of Medicine, New York City. Chairman of the meeting will be Dr. Harold R. Merwarth, president of the Metropolitan Chapter. The program will include the following: "Civilian Health, a Joint Responsibility," Dr. Warren P. Dearing, deputy surgeon general, U. S. Public Health Service, and "Recent Advances in Electronic Microscopy, Dr. Ralph Wykoff, scientist director, National Institutes of Health, U.S. Public Health Service, Bethesda, Maryland.

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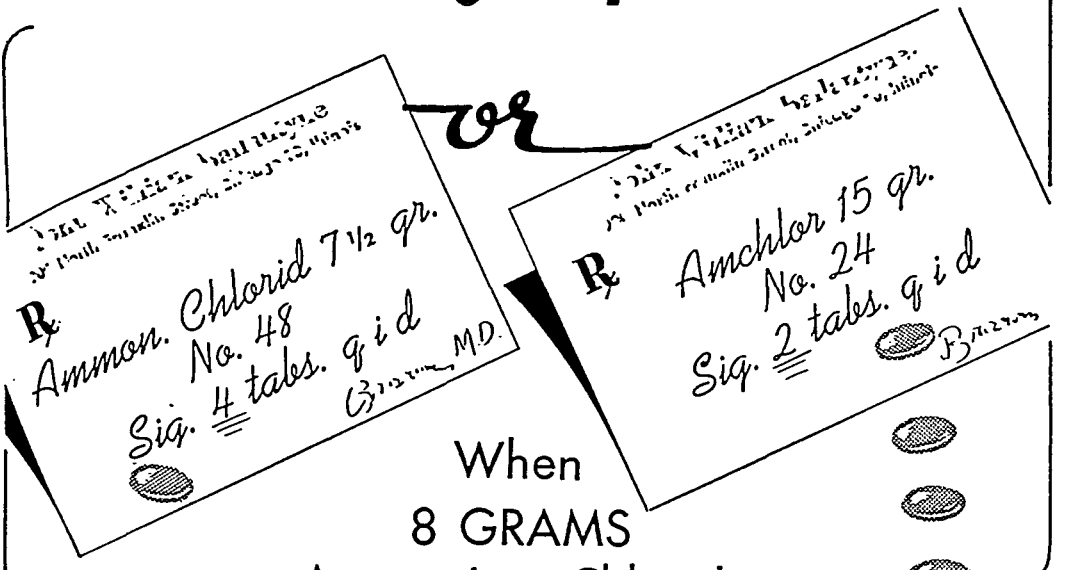
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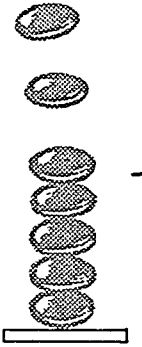


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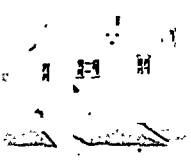
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